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January 24, 2012

VIA EDGAR AND OVERNIGHT DELIVERY

Securities and Exchange Commission
100 F. Street, N.E.
Washington, D.C. 20549-3628

Attention: James E. O'Connor, Esq. — Division of Investment Management

Re: Horizon Technology Finance Corporation
Registration Statement on Form N-2, Filed December 15, 2011
File Nos. 333-178516 and 814-00802

Dear Mr. O'Connor:

On behalf of Horizon Technology Finance Corporation, a Delaware corporation (the "Fund" or the "Company"), we are responding to the comments of the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") set forth in your letter dated January 10, 2012, and as communicated to us by telephone by Mr. Jeff Long on January 13, 2012, with respect to the above-referenced registration statement on Form N-2, filed by the Company on December 15, 2011 (the "Registration Statement").

In connection with this response the Company is today also filing with the Commission Amendment No. 1 to the Registration Statement (the "Amendment") which reflects the responses set forth below, as appropriate. We are also delivering to you three (3) courtesy copies of the Amendment.

To facilitate the Staff's review, this letter includes each of the Staff's comments in italics followed by a response to the Staff's comments. Capitalized terms used in the Amendment and used in the following responses without definition have the meanings specified in the Amendment, or the Staff's comment letter, as the context requires. All references to page numbers in the responses to the Staff's comments are to page numbers in the Amendment.

Prospectus

Cover Pages

1. Following the statement in the second paragraph of the front cover that "[w]e will not receive any of the proceeds from the sale of shares of our common stock by any selling

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stockholders,” please add that these sales may negatively affect the market price of the Fund’s shares.

Response: In response to the Staff’s comment, disclosure has been added to the front cover that the sale of shares of the Company’s common stock by any selling stockholders may negatively affect the market price of the Company’s shares.

2. Immediately before the sentence with the cross reference required by Item 1.1.j. of Form N-2, please include the following statement in the same bold face type as the rest of paragraph:

The securities in which the Fund invests will not be rated by any rating agency. If they were, they would be rated as below investment grade or “junk.” Indebtedness of below investment grade quality has predominantly speculative characteristics with respect to the issuer’s capacity to pay interest and repay principal.

Response: The Company has added the following statement after the cross reference required by Item 1.1.j. of Form N-2 in the same bold face type as the rest of the paragraph:

The individual securities in which the Company invests will not be rated by any rating agency. If they were, they would be rated as below investment grade or “junk.” Indebtedness of below investment grade quality has predominantly speculative characteristics with respect to the issuer’s capacity to pay interest and repay principal.

3. In the same paragraph, please revise the statement that “[i]nvesting in our securities is speculative and involves numerous risks...” to state that such investments are “highly speculative” and “involve a high degree of risk.”

Response: The Company has revised the statement in accordance with the Staff’s comment.

4. We note that the market price of the Fund’s shares is currently below the Fund’s net asset value. We also note that the Fund held a special meeting on July 12, 2011, to request shareholder approval to offer its shares below NAV for the next 12 months, as provided in Section 63(2) of the 1940 Act. If this proposal was approved by shareholders, or if the Fund intends to again seek shareholder approval to offer its shares below NAV, it should be disclosed in the third paragraph of the cover and, where appropriate, in the prospectus.

Response: Pursuant to the Staff’s comment, we have revised the third paragraph of the cover and pages 20 and 111 of the Amendment to state that the Company intends to seek approval in the future to offer its shares below NAV.

5. The “selling stockholders” will not be restricted by Section 23(b) of the 1940 Act from selling their shares when the market price is below NAV. Please mention this fact with respect to the Fund shares being registered for resale in the fourth paragraph of the cover page. Because the “overhang” of insider shares being registered for resale is significant, please also

mention in the fourth paragraph of the cover, as well as disclosing prominently in the prospectus, the negative effect on market price that may result from insider selling.

Response: The Company has disclosed on the cover page of the Amendment that the selling stockholders will not be restricted by Section 23(b) of the 1940 Act from selling their shares when the market price is below NAV. Additionally, in accordance with the Staff's comment the Company has included the following disclosure on the cover page and pages 7 and 108 of the Amendment regarding the effect from insider selling: "Shares sold by the selling stockholders will generally be freely tradeable in the public market. Sales of substantial amounts of our common stock, or the availability of such common stock for sale, could adversely affect the prevailing market prices for our common stock" and correspondingly expanded the disclosure on page 36 of the Amendment.

6. Please disclose specifically the amount of expenses that the Fund will bear "in connection with the registration and sale of the common stock being offered by the selling stockholders." Please provide us with a copy of the agreement between the Fund and the selling stockholders that requires the Fund to pay the registration and offering expenses of their shares. Please inform us whether the Fund's board has made a good faith determination with respect to the Fund's payment of these the expenses.

Response: Pursuant the Registration Rights Agreement with the selling stockholders, a copy of which is filed as Exhibit (k)(3) of the Company's Pre-Effective Amendment No. 2 to the Registration Statement on Form N-2 (File No. 333-165570) filed on July 2, 2010 and incorporated into the Registration Statement by reference, the Company agreed to pay customary costs and expenses of registration of the common stock owned by the selling stockholders, including but not limited to SEC filing fees and expenses of compliance with state securities laws. The Company respectfully advises the Staff that the specific amount of expenses the Company will bear in connection with the registration and sale of the common stock offered by the selling stockholders cannot be determined until an offering of the Selling Stockholder Shares occurs, and that the Company will provide the specific amount of expenses in the prospectus supplement related to such offering.

Such Registration Rights Agreement, including the provisions regarding payment of expenses therein, was approved by the Company's board of directors in good faith. The Company will supplementally provide the Staff a copy of the Registration Rights Agreement.

7. Please provide us with a legal analysis addressing how the Fund's offering of "units" is consistent with the requirements of the 1940 Act. This discussion should include discussions of the following issues. What Fund securities may be combined in the units? If the Fund's shares are trading at a discount, how will the units be priced? Are the units separately transferable? What are the securities being registered — the units or the units together with their underlying securities? Please provide us with a representation that the Fund will file a post-effective amendment prior to offering units, so that the staff has adequate opportunity to review the terms of their offering.

Response: The Company has revised the Registration Statement and the Prospectus included therein to remove all references to “units” and provide only for offerings of common stock, preferred stock, subscription rights, debt securities and warrants.

8. Please inform us how the Fund will account for the offering expenses related to the shares being registered.

Response: The Company has advised us that costs incurred (including the costs of the selling stockholders the Company has agreed to bear) in connection with the filing of the Registration Statement and the Amendment will be capitalized as a prepaid expense and that when securities are sold under the Registration Statement a portion of the costs previously capitalized attributable to the securities sold will be charged against paid in capital.

9. How do the number of Fund shares that are currently held by the public and the number of shares being registered that will be offered currently by the Fund compare to the approximately 1.3 million shares being registered for resale by the “selling stockholders”?

Response: The Company notes the Staff’s comment and respectfully advises the Staff that it will not know how the number of Company shares that are held by the public and the number of shares being registered that will be offered by the Company compares to the approximately 1.3 million shares being registered for resale by the selling stockholders until the Company and any selling stockholders commence an offering of shares. As of the date of the Amendment, Compass Horizon Partners LP and HTF-CHF Holdings LLC each own approximately 16.6% and 0.7%, respectively, of the Company’s outstanding shares. The foregoing ownership percentage of Compass Horizon Partners LP and HTF-CHF Holdings LLC is disclosed on page 108 of the Amendment.

Prospectus Summary

1. The subsection “Our Company,” on page 2, indicates that the Fund’s principal strategy is “Venture Lending.” It would be helpful to investors if this term were defined specifically, as is the term “enterprise value lending” in the “Strategy” subsection on page 3. (The first bullet, on page 57, of the prospectus provides a useful definition of “Venture Lending.”)

Response: Pursuant to the Staff’s comment, the Company has included the following clarification relating to “Venture Lending” on page 2 of the Amendment:

Venture Lending is typically characterized by, among other things, (i) the making of a secured loan after a venture capital or equity investment in the portfolio company has been made, which investment provides a source of cash to fund the portfolio company’s debt service obligations under the Venture Loan, (ii) the senior priority of the Venture Loan which requires repayment of the Venture Loan prior to the equity investors realizing a return on their capital, (iii) the relatively rapid amortization of

the Venture Loan, and (iv) the lender's receipt of warrants or other success fees with the making of the Venture Loan.

2. In the "Use of Leverage" paragraph, on page 4, please discuss the additional leverage that the Fund may create if it issues debt securities and preferred shares in the shelf offerings.

Response: The Company has revised the disclosure on pages 4 and 58 of the Amendment to discuss the additional leverage that the Company may create if it issues debt securities and preferred shares in a shelf offering.

3. In the "Market Opportunity" subsection, on page 4, please change the phrase, "increased level of risk," to "very high level of risk."

Response: The Company has revised the disclosure in the "Market Opportunity" subsection on pages 4 and 59 of the Amendment to change the phrase "increased level of risk" to "high degree of risk," which is consistent with the Staff's comment to the disclosure on the cover of the Amendment.

4. In the "Our Portfolio" subsection, on page 5, the disclosure states "[t]he loans in our loan portfolio generally are not rated by any rating agency." Immediately after this sentence, please insert a summary of the following disclosure from page 26 of the prospectus:

"[I]nvestments in our portfolio companies, if rated by one or more ratings agency, would typically be rated below "investment grade," which refers to securities rated by ratings agencies below the four highest rating categories. These companies may also have more limited access to capital and higher funding costs. In addition, development-stage technology markets are generally characterized by abrupt business cycles and intense competition, and the competitive environment can change abruptly due to rapidly evolving technology. Therefore, our portfolio companies may face considerably more risk than companies in other industry sectors. Accordingly, these factors could impair their cash flow or result in other events, such as bankruptcy, which could limit their ability to repay their obligations to us and may materially adversely affect the return on, or the recovery of, our investments in these businesses."

Response: The Company has revised page 5 of the Amendment to include a summary of the disclosure set forth above.

5. In the "Risk Factors" subsection, on pages 5-6, please make the following revisions:

a. Please add a bullet stating:

The securities in which we invest have no market price and we value them based on estimates. Our valuations are inherently uncertain and may differ materially

from the values that would be assessed if a ready market for these securities existed. (See page 18 of the prospectus.)

Response: In accordance with the Staff's comment, the Company has added a bullet on page 7 of the Amendment to disclose that the securities in which the Company invests generally will have no market price and the Company values them based on estimates and that such valuations are inherently uncertain and may differ materially from the values that would be assessed if a ready market for these securities existed.

b. Please add a bullet disclosing that the Fund's quarterly distributions may be paid out of the paid-in capital of investors. Please explain that such a distribution would be a return of the investor's original investment, net of Fund expenses, rather than a distribution of earnings and profits. Please also explain that, while such a distribution may not be taxable immediately, it would lower an investor's basis in the shares, such that if they are sold, the investor would pay higher taxes, even if the shares were sold for less than the purchase price.

Response: The Company has revised a bullet on page 6 to also state that there is a risk a portion of distributions paid to investors may be a return of capital and expanded the corresponding risk factor on page 31-32 of the Amendment consistent with the Staff's comment.

c. On page 6, please delete "typically" from the bullet stating that the Fund's investments "would be typically rated below 'investment grade.'" The Fund's investment strategy is to make "Venture Loans" to "development-stage companies," which are, by definition, below investment grade investments. In addition, the Fund's entire current portfolio appears to be investments that, if rated, would be rated below investment grade.

Response: Pursuant to the Staff's comment, the Company has deleted the word "typically" from the above referenced bullet point on page 6 of the Amendment and the corresponding risk factor on page 27 of the Amendment.

d. On page 6, please revise the bullet describing the risk of "[s]ubsequent sales in the public market of substantial amounts of our common stock..." to clarify that it is the "subsequent sales" of Fund shares by "selling stockholders" that is referred to and that the registration of a substantial amount of insider shares, whether or not they are actually sold, may have a negative impact on the market price. It also should be clarified that, because the Fund managers are "selling stockholders," a negative perception could be created in the market about the Fund's prospects by the resale registration.

Response: The Company has revised the bullet on page 6 of the Amendment and the corresponding risk factor on page 36 of the Amendment to clarify that the subsequent sale of substantial amounts of shares of common stock by the selling stockholders in the public market may have an adverse effect on the market price of the Company's common stock and that the registration of a substantial amount of insider shares, whether or not actually sold, may have a

negative impact on market price. In addition, the Company has clarified on page 36 of the Amendment that a negative perception could be created in the market about the Company's prospects by the registration of shares on behalf of Company insiders.

e. On pages 6 and 32, please clarify the meaning of the statement that “[w]e may allocate the net proceeds from this offering in ways with which you may not agree.”

Response: Pursuant to the Staff's comment, the Company has clarified the meaning of the referenced statement by expanding the disclosure on page 33 of the Amendment.

f. On page 6, please clarify the bullet statement that “investors in debt securities that we may issue may not receive all of the interest income to which they are entitled.” If the Fund may issue debt securities with original issue discount (“OID”), the nature of this risk for potential investors needs to be explained here, and elsewhere, in the prospectus.

Response: The Company has revised the disclosure on page 31 to delete the referenced statement. The Company has disclosed that it does not currently have any intentions to issue debt securities during the year following the effective date of the Registration Statement and, as such, it does not expect to issue debt securities with OID. In the event the Company intends to issue debt securities with OID it will disclose the nature of the risk for potential investors in the applicable prospectus or prospectus supplement.

g. On pages 6 and 34, please clarify the meaning of the statement that “[o]ur credit ratings may not reflect all risks of an investment in any debt securities that we may issue.” Will any debt securities to be issued by the Fund be rated by a rating agency?

Response: The Company has revised the disclosure on pages 7 and 35 of the Amendment consistent with the Staff's comment. In addition, if the Company chooses to issue debt securities it expects that such debt securities will be rated by a rating agency.

Offerings, page 7

1. Please disclose the identities of the “selling stockholders,” including that one of the selling stockholders, HTF-CHF, is wholly owned by the Fund's managers. Disclose why the shares were issued to the selling stockholders and why the Fund is paying the expenses of the resale registration. Disclose whether all contractual lock-ups and any other restrictions applicable to sales by insiders have expired. Disclose whether the Fund managers intend to sell their shares within a year of the effective date of the registration.

Response: In response to the Staff's comment, the Company has revised the disclosure on page 9 of the Amendment to disclose the identities of the selling stockholders, including that HTF-CHF Holdings LLC is primarily owned by the Company's officers and included a cross-reference to the sections entitled “Control Persons and Principal Stockholders” and “Selling

Stockholders” on pages 89 and 107 of the Amendment, respectively. A description of the circumstances surrounding the issuance of the shares to the selling stockholders, which relate to the Company’s initial public offering, has also been included on page 9 of the Amendment. The Company has also revised the disclosure on pages 9 and 107 of the Amendment to include disclosure of the reason why it will pay specific expenses of the selling stockholders in connection with the registration and sale of such common stock. The fact that all contractual lock-ups and other restrictions applicable to sales by insiders have expired has been added to the disclosure on pages 9 and 107 of the Amendment. We have been advised by HTF-CHF Holdings LLC that it does not currently intend to sell its shares within a year of the effective date of the Registration Statement and have included disclosure to this effect on pages 9 and 107 of the Amendment.

2. In the paragraph, “Sales of Common Stock Below Net Asset Value,” please disclose that sales by the selling stockholders, like those by any third-party seller, are not subject to the restrictions on sales below NAV.

Response: The Company has disclosed in the above-referenced paragraph on pages 9 and 115 of the Amendment that sales by the selling stockholders, like any third-party seller, are not subject to the restrictions on selling below NAV.

Fees and Expenses, page 10

1. Please confirm that the calculation of net assets is based on an estimate of the Fund’s average net assets for the current fiscal year, taking into account the net proceeds of this offering expected to be received by the Fund in the current fiscal year.

Response: The Company has revised the disclosure on page 11 to reflect that the calculation of net assets attributable to common stock equals the Company’s estimated average net assets for the current fiscal year. In the event the Company conducts an offering of any of its securities, the anticipated net proceeds of an offering will be taken into account and reflected in the Fees and Expenses table included in the applicable prospectus supplement. The Company has accordingly revised its disclosure on page 11 of the Amendment.

2. At the end of the line item “Other Expenses,” please add the phrase “(estimated for the current fiscal year).”

Response: The Company has revised the “Other Expenses” line item to add the phrase “(estimated for the current fiscal year).”

3. Please provide an “Acquired Fund Fees and Expenses” line item if any of the Fund’s assets will be invested in an “acquired fund,” including a money market fund, and the anticipated indirect expenses of such an investment are expected to be equal to, or greater than, one basis point. See Instruction 10 to Item 3.1. of Form N-2.

Response: The Company has revised the “Fees and Expenses” table on page 11 of the Amendment to include an “Acquired Fund Fees and Expenses” line item.

4. In footnote "4" change the phrase "borne by us" to "borne by the Fund."

Response: The Company has accordingly revised footnote 2.

5. Please revise footnote "4" to clarify that "gross assets" include the assets estimated to be acquired in the current fiscal year using leverage. Please explain to us the meaning of the statement that "[t]he management fee referenced in the table above assumes the base management fee remains consistent with fees incurred for the three months ended September 30, 2011." The base management fee should be based on the Fund's asset size after giving effect to the anticipated net proceeds of this offering. See Instruction 7(a) to Item 3.1. of Form N-2.

Response: The Company has revised footnote "5" in the Amendment to clarify the basis for the calculation of the management fee in the "Fees and Expenses" table on page 11 of the Amendment, including that "gross assets" include assets estimated to be acquired in the current fiscal year using leverage. The Company respectfully advises the Staff that it has removed the statement that "[t]he management fee referenced in the table above assumes the management fee remains consistent with fees incurred for the three months ended September 30, 2011" and instead indicated in such footnote that the estimated management fee was calculated based on the Company's average gross assets for the three months ended September 30, 2011. In the event the Company conducts an offering of its securities, the Company will include in its calculation of the base management fee the anticipated net proceeds of an offering in the "Fees and Expenses" table included in the applicable prospectus supplement for an offering.

6. Footnote "4" states that "[t]he incentive fee payable to our Advisor is based on the actual amount incurred under the first part of the Investment Management Agreement during the three months ended September 30, 2011, annualized for a full year." Please explain to us why this is a reasonable method of estimating the incentive fee payable for the current fiscal year. Further, footnote "5" also states that "[a]s we cannot predict the occurrence of any capital gains from the portfolio, we have assumed no Incentive Fee Capital Gain. The financial statements indicate that the Fund paid a capital gain incentive fee for the nine-month period ended September 30, 2011. (See page 44 of the prospectus.) Accordingly, please provide an estimated capital gain incentive fee for the current fiscal year.

Response: The Company has advised us that it used the most recent financial information available to estimate the part 1 incentive fee payable for the current fiscal year and that the quarter ended September 30, 2011 reflects a seasoned earning portfolio that is reflective of the Company's expectations going forward. Even though the Company has accrued part 2 incentive fees for the first nine months of 2011, the Company believes it is not appropriate to estimate any part 2 incentive fee at this time because the part 2 incentive fees are earned primarily from realized warrant gains less realized and unrealized portfolio losses on a cumulative basis. The Company is unable to estimate the timing or extent of any gains or losses and the inclusion of any part 2 incentive fees at this time could be misleading to investors.

7. Footnote "6" states that "we have computed the interest expense using the balance outstanding at September 30, 2011." Please explain to us why this is a reasonable estimate of the interest expense for the current fiscal year. Please disclose whether the Fund intends to issue debt securities within a year from the effective date of the registration statement.

Response: The Company has advised us that it believes this estimate is reasonable because it is based upon the most recently available financial information, including prevailing interests rates on the Company's two credit facilities and the respective outstanding balances of each credit facility. In addition, the Company has revised footnote 7 to disclose that it does not have any current plans or intentions to issue debt securities during the year following the effective date of the Registration Statement.

Risk Factors, page 14

1. The disclosure, on page 16, describing the risks in "the covenants or restrictions in the Credit Facilities" is too complex. Please revise it in plain English. It appears from the footnotes to the Statement of Investments, on page F-11, that almost all of the investments of the Fund are pledged through the credit facilities. Given that the lender may seize the assets of "Credit I" and "Credit II" without adjudication, please disclose the extensive security interest in the Fund's assets that has apparently been granted to the lender.

Response: The Company has revised the above referenced risk factor on page 17 of the Amendment consistent with the Staff's comment.

2. The description, on page 17, of the risk that the Fund will be "unable to obtain additional debt financing" is also too complex. It, too, should be revised in plain English. In addition, because the disclosure, on page 18, states that the Fund has withdrawn its application to operate the Longview subsidiaries as SBICs, the bullet, on page 35, about a subsidiary becoming an SBIC should be deleted.

Response: The Company has revised the risk on page 18 of the Amendment in accordance with the Staff's comment. The Company respectfully advises the Staff that even though it has withdrawn its application to the Small Business Administration for a license to operate as a small business investment company (an "SBIC"), it may in the future submit a new application and, as such, believes the receipt of an SBIC license could cause the Company's actual results to differ materially from forward-looking statements or historical performance. Accordingly, the Company believes the bullet on page 37 of the Amendment should not be deleted.

3. The subsection, on page 18, titled, in part, "the value of our investments may not be readily determinable," states that "[o]ur Board employs an independent third-party valuation firm to assist the board in arriving at the fair value of our investments." Does the Board use an independent valuation firm, rather than a pricing service, to value each investment when made by the Fund and, at least, quarterly thereafter? Please provide us with a copy of the valuation policies adopted by the Board.

Response: Due to the nature of the Company's investments, loans to operating companies, the Company does not utilize a pricing service and does not employ an independent third-party valuation firm to value each investment when made (i.e., when it makes a loan). The Company's Board has engaged Sterling Valuation Group, Inc., an independent third-party valuation firm, to assist the Company's Board in valuing each investment not less than annually. The Company will supplementally provide a copy of its valuation policies adopted by the Board.

4. *The description, on page 19, of the risks of the "[r]egulations governing...our ability to...raise additional capital..." states that "[w]e may obtain additional capital through the issuance of debt securities, other indebtedness or preferred stock, and we may borrow money from banks or other financial institutions..." Describe the "other indebtedness" mentioned. Disclose whether the Fund intends to issue debt securities and/or preferred stock within a year of the effective date of the registration statement.*

Response: The Company does not have any current intention to issue debt securities and/or preferred stock within a year of the effective date of the Registration Statement and has added this disclosure on page 20 of the Amendment. The Company has removed the reference to "other indebtedness" on page 20.

5. *The risk disclosure, on pages 20 and 22 and elsewhere in the prospectus, indicates that the Fund may "hold debt instruments that are treated under applicable tax rules as having original issue discount (such as debt instruments with payment-in-kind interest or, in certain cases, increasing interest rates or issued with warrants)..." We also note that the disclosure, on page 22, states that "[o]ur governing documents do not limit the number of loans we may make with deferred interest features or the proportion of our income we derive from such loans."*

a. Please disclose how much of the Fund's current income is attributable to OID.

Response: The Company has expanded the disclosure on page 21 of the Amendment to disclose how much of the Company's current income is attributable to OID as follows: "The proportion of our income, consisting of net investment income and our realized gains and losses, that resulted from the portion of original issue discount not received in cash for the years ended December 31, 2009 and 2010 and the nine months ended September 30, 2011 was 8.7%, 9.1% and 7.0%, respectively."

b. Disclose whether the Fund has a policy limiting its ability to invest in OID instruments, including payment-in-kind ("PIK") loans.

Response: The Company has included disclosure on page 21 of the Amendment to state that it does not have a policy limiting its ability to invest in OID instruments, including payment-in-kind loans.

c. In the Schedule of Investments, on page F-6, and where appropriate in the financial statements, please disclose the amount of PIK interest payable on each loan and the amount of OID attributable to each warrant.

Response: The Company has advised us that it has not included the amount of PIK interest on each loan and the amount of OID attributable to each warrant in the Schedule of Investments and the financial statements because the amounts of both are immaterial. See Response to 5.a. above.

d. If the Fund's OID investments will be significant, please provide summary risk disclosure about the fact that such investments will require the Fund to pay incentive fees and taxes on accrued income that will not be collectible until maturity of the instrument and, ultimately, may not be collected.

Response: The Company has advised us that it does not believe its OID investments are significant. See Response to 5.a. above.

6. With respect to the conflicts of interest disclosure on page 21, disclose whether the Advisor has a written policy for resolving conflicts of interest.

Response: The Company respectfully advises the Staff that it has a written conflicts of interest policy and expanded the disclosure on page 22 of the Amendment to indicate that it will act in accordance with its written conflicts of interest policy to address, and, if necessary, resolve any conflicts of interest.

7. The discussion about the restrictions on transactions with affiliates, on page 24, does not indicate whether these restrictions actually affect the Fund. Please clarify the disclosure with respect to whether the Fund intends to enter into any principal transactions or joint arrangements with any affiliates. Please also disclose whether the Fund intends to request any exemptive relief under Section 57 of the 1940 Act.

Response: The Company does not currently have any principal transactions or joint arrangements with any affiliates. While the Company has no current intention to enter into any principal transactions or joint arrangements with any affiliates, it has considered and evaluated, and will continue to consider and evaluate, the potential advantages and disadvantages of doing so. If the Company decides to enter into any such transactions in the future, it will not do so until it has requested and received the requisite exemptive relief under Section 57 of the 1940 Act, the filing of which the Company's board of directors has previously authorized. The Company has revised its disclosure in the Amendment on page 25 to reflect that while it has no present intention to enter into such transactions, it may do so in the future and, in such event, will request exemptive relief under Section 57 of the 1940 Act.

8. Please revise the subsection heading on page 34, as follows: "Subsequent sales in the public market of substantial amounts of our common stock issued to the selling shareholders may have an adverse effect on the market price of our common stock." The disclosure also needs to be revised, in this subsection and in the summary risk disclosure, to

focus on the risks arising from the registration for resale of the Fund shares previously issued to Fund insiders (the "Selling Shareholders"). Please clarify that, as implied from the phrase "the availability of shares for sale," the mere registration of a substantial amount of insider shares, particularly shares owned by managers, may have a negative impact on the market price of the Fund's shares.

Response: The Company has revised page 36 of the Amendment in accordance with the Staff's comment.

Price Range of Common Stock and Distributions, page 37

1. *The following information, appearing on page 37, also should be disclosed, where appropriate, in the prospectus summary:*

"To the extent our taxable earnings fall below the total amount of our distributions for any given fiscal year, a portion of those distributions may be deemed to be a return of capital to our common stockholders for U.S. federal income tax purposes. Thus, the source of a distribution to our stockholders may be the original capital invested by the stockholder rather than our income or gains. Stockholders should read any written disclosure accompanying a dividend payment carefully and should not assume that the source of any distribution is our ordinary income or gains."

Response: The information referenced above has been added to the prospectus summary on page 6 of the Amendment.

2. *Please inform us whether the Fund intends to report a distribution yield. If the Fund intends to report a distribution yield at any point prior to finalizing its tax figures, it should disclose the components of the distribution yield. In addition, any reports containing distribution yields should be accompanied by the SEC total return and/or yield and the Fund should also disclose that the distribution yield does not represent its performance.*

Response: The Company does not intend to report a distribution yield.

Other

1. *Does the prospectus describe all of the fundamental policies of the Fund with respect to any of the activities listed in Item 17.2. of Form N-2 and any other policy that the Fund deems fundamental? Does the Fund reserve freedom of action with respect to any of these activities?*

Response: As indicated on page 109 of the Amendment, none of the Company's investment policies have been deemed fundamental.

2. *Does the prospectus describe fully all significant investment policies of the Fund that are not deemed fundamental and that may be changed without the approval of the holders of a majority of the voting securities?*

Response: The prospectus does describe fully all significant policies of the Company that are not deemed fundamental and that may be changed without the approval of the holders of a majority of the voting securities.

3. *Does the prospectus disclose the extent to which the Fund may engage in its fundamental and non-fundamental policies and the risks inherent in such policies?*

Response: The prospectus does disclose the extent to which the Company may engage in its fundamental and non-fundamental policies and the risks inherent in such policies. As discussed in *Other-Comment 1* above, the Company does not have any policies that it deems fundamental.

4. *Please inform us whether the officers, directors, and beneficial owners of more than 10% of the Fund's securities have filed the ownership reports (Forms 3, 4, and 5) required by Section 16(a) of the Securities Exchange Act of 1934.*

Response: The Company advises the Staff that, to the best of its knowledge, officers, directors and beneficial owners of more than 10% of the Company's securities have filed the ownership reports on Forms 3, 4 and 5 required by Section 16(a) of the Securities Exchange Act of 1934, as amended.

5. *Please state in your response letter whether FINRA has reviewed the terms and arrangements of the underwriting.*

Response: The Company informs the Staff on a supplemental basis that it has not yet engaged any underwriters in connection with any contemplated offerings under its Registration Statement. Subsequent to effectiveness of the Registration Statement, the Company confirms to the Staff that, to the extent that the Company determines to engage a FINRA member to act as an underwriter in connection with a "takedown" from the Registration Statement, such FINRA member will be required to obtain a "no-objections" letter from FINRA with respect to the proposed underwriting terms and arrangements prior to participating in a shelf "takedown."

Accounting Comments

On January 13, 2012, Jeff Long conveyed to me by telephone the following accounting comments:

1. *Many of the Fund's holdings listed on the Consolidated Schedule of Investments on page F-6 are valued at cost. Please explain how this constitutes fair value under FASB ASC Topic 820.*

Response: The Company has advised us that it values each of its investments in accordance with the Investment Company Act of 1940, as amended, and Accounting Standards Codification ("ASC") topic 820 (formerly SFAS No. 157, "Fair Value Measurements") (collectively, the "Accounting Standards"). Consistent with the Accounting Standards, the

Company defines "Fair Value" as the price that would be received to sell an asset or transfer a liability in an orderly transaction between market participants on the measurement date.

A component of the Company's valuation process is to evaluate the contract interest rate of a loan compared to the market interest rate at the time of valuation. To the extent that the contract and market interest rates are comparable on a performing loan, the fair value of a loan investment is generally equal to its cost.

As previously stated above, the Company will supplementally provide the Staff with a copy of its valuation policy, which provides additional detail on the Fund's valuation process and methodology.

2. Please confirm the cash reflected in the Fund's September 30, 2011 financial statements is not invested in a repurchase agreement or money market fund that should be listed on the Consolidated Schedule of Investments.

Response: The Company has revised the schedule of investments included under the section entitled "Portfolio Companies" beginning on page 66 of the Amendment to reflect the Company's short term investments in money market funds. In addition, the Company will, in its future filings with the Commission (beginning with its Annual Report on Form 10-K for the year ended December 31, 2011), include the same information in its Consolidated Schedule of Investments that is part of the Company's audited financial statements.

3. Please disclose the number of shares or principal amount of bonds and notes for investments listed on the Consolidated Schedule of Investments. See Article 12-12 of Regulation S-X.

Response: The Company has revised the schedule of investments included under the section entitled "Portfolio Companies" beginning on page 66 of the Amendment to include a new column that discloses the principal amount of each investment included therein. In addition, the Company will, in its future filings with the Commission (beginning with its Annual Report on Form 10-K for the year ended December 31, 2011), include the same information in its Consolidated Schedule of Investments that is part of the Company's audited financial statements.

4. In the Consolidated Schedule of Investments, indicate by appropriate symbol each issue of securities which is non-income producing.

Response: The Company has revised the schedule of investments included under the section entitled "Portfolio Companies" beginning on page 66 of the Amendment to indicate each issue of securities which is non-income producing. In addition, the Company will, in its future filings with the Commission (beginning with its Annual Report on Form 10-K for the year ended December 31, 2011), include the same information in its Consolidated Schedule of Investments that is part of the Company's audited financial statements.

5. In Note 12: Financial Highlights on page F-53, please explain why "N/A" is used for the "Per Share Data" in the table as opposed to the initial net asset value.

Response: The Company has advised us that in presenting the per share data in Note 12: Financial Highlights, it assumed that since the Company did not have shares of common stock outstanding during the quarter presented the Company should exclude that information from the footnote. However, after further consideration of the disclosure, in its future filings with the Commission (beginning with its Annual Report on Form 10-K for the year ended December 31, 2011) the Company will replace the references to "N/A" used in the table with amounts for the short period of October 29, 2010 to December 31, 2010 that are based on the Company initial net asset value.

6. In the example of projected dollar amount of cumulative expenses on page 11, please confirm that the amount for each year corresponds to the percentage of Total Annual Expenses (estimated) in the "Fees and Expenses" table on page 10.

Response: The Company has revised the example of projected dollar of cumulative expenses on page 12 of the Amendment so that the amounts correspond the percentage of Total Annual Expenses (estimated) in the "Fees and Expenses" table on page 11 of the Amendment.

* * * *

We appreciate the efforts of the staff and look forward to resolving the above comments as soon as possible. In response to the above comments, the Company has also executed a written statement acknowledging certain items referenced in the closing of your original letter, which is attached hereto as Appendix A. Please contact the undersigned at the above number or Stephen C. Mahon at (513) 361-1200 if you have any questions regarding the responses set forth above.

Very truly yours,
Toby D. Merchant

Appendix A

In conjunction with the responses to the letter dated January 10, 2012, containing comments from the staff of the Securities and Exchange Commission (the "Staff") in respect of the above-referenced Registration Statement on Form N-2, Horizon Technology Finance Corporation (the "Company") acknowledges that:

- should the Commission or the Staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the Company may not assert this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

**HORIZON TECHNOLOGY FINANCE
CORPORATION**

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

Robert D. Pomeroy, Jr.

Chief Executive Officer