

---

December 27, 2012

Via EDGAR

Attn: Mr. Daniel L. Gordon, Branch Chief  
U.S. Securities and Exchange Commission  
Washington, D.C. 20549-0302

**Re: Lightbridge Corporation**  
**Form 10-K for the fiscal year ended December 31, 2011**  
**Filed February 22, 2012**  
**File No. 001-34487**

Dear Mr. Gordon,

We are in receipt of the comment letter issued by the United States Securities & Exchange Commission dated December 12, 2012 regarding the above referenced filings. As requested in your letter, we have provided responses to the questions raised by the staff in relation to the Form 10K filed on February 22, 2012 and the Form 10-Q for the quarterly period ended September 30, 2012. For your convenience, the matters are listed below, followed by our responses:

Form 10-Q for the quarterly period ended September 30, 2012

Liquidity and Capital Resources, page 33

1. In future filings, please provide a much more robust discussion of short-term and long-term liquidity sources and uses in a separate section, as opposed to your limited current discussion included within your discussion of historical cash provided by (used in) financing activities. Please provide a more detailed discussion of potential sources of cash that may be available to you, and the likely terms and impact it will have on your future liquidity and on your current shareholders' positions. Please also discuss any progress you have made toward securing any future sources of funding. Please refer to Item 303(A)(1) of Regulation S-K and FRR 72. Additionally, please consider adding a risk factor addressing your current liquidity situation. Provide your proposed future disclosures in your response.
-

RESPONSE:

As requested by the Staff, we will include a more robust discussion of our short-term and long-term liquidity sources and uses in our future filings. We will also include a separate discussion under *Management's Discussion and Analysis* titled *Liquidity and Working Capital*.

Future short-term and long-term liquidity sources and uses of capital

Item 303(a)(1) of Regulation S-K requires that with respect to liquidity that registrants identify any known trends or any known demands, commitments, events or uncertainties that will result in or that are reasonably likely to result in the registrant's liquidity increasing or decreasing in any material way. We will clarify our future disclosure, if applicable at the time of filing, regarding the two below mentioned uncertainties affecting our short-term and long-term liquidity.

We have been actively seeking new consulting work in 2012 from several countries interested in our nuclear consulting services (Consulting Business Segment). We have written proposals out to these prospects, which as of this date are pending approval. Although we anticipate securing new consulting work from one or more of these prospects, we cannot determine as of this date if and when a new contract will be awarded to us. The margin earned on these new contracts would impact our short-term and long-term liquidity and supplement the funding for the anticipated additional outside research and development activities of \$3 million to \$4 million over the next 12-15 months.

In addition, we recently began negotiating contracts with various third party entities to further the development of our nuclear fuel for the above mentioned research and development agreements (Technology Business Segment). Until we finalize the terms of these agreements, we are uncertain regarding the timing of the cash requirements needed to fund these additional research and development expenses projected for the next 12-15 months. If these agreements require significant upfront cash requirements, we will analyze our cash position and requirements. If we enter into one of these contracts before entering into a new consulting agreement(s), we may need to secure additional capital or financing.

We will clarify our future disclosures regarding these two above mentioned short-term and long-term liquidity uncertainties as required under Item 303(a)(1).

---

#### Need for financing and potential sources of cash available

The need for future financing or other potential sources of capital will be determined by the timing and amount that our future additional research and development costs exceed the gross profit from our current and future consulting contracts. Financing or additional capital may also be needed after 12 months if there is a shortfall in our operating cash flows. As of the date of this letter, this cash flow shortfall is in the range of approximately \$200,000 - \$300,000 per month. The majority of this shortfall amount presently goes toward the funding of our internal research and development activities.

We anticipate, based on our historical and projected future business activities, that this monthly \$200,000 - \$300,000 cash flow shortfall amount may decrease in 2013, and that we expect with the signing of new consulting agreements, to be cash flow positive sometime during 2013. However, we can give no assurance that we will become cash flow positive in 2013.

At September 30, 2012, the Company had a total of cash, restricted cash and marketable securities available to fund its current operations of approximately \$5.6 million, and working capital of approximately \$5.6 million, therefore having sufficient capital resources to fund our cash flow shortfall of \$200,000 - \$300,000 and our current operations for the next 12 months. We will clarify our future liquidity disclosures to discuss this current average monthly working capital shortfall, if still applicable at the date of the next filing. As of the date of this letter, we have not looked for any additional financing or other sources of capital.

Until the above mentioned pending consulting revenue and research and development contracts are finalized, which we expect both to occur sometime during 2013, or until we have a better understanding of their ultimate resolution, we are uncertain of our short-term and long-term liquidity sources and uses of capital at this time. We will add a risk factor that addresses this liquidity uncertainty, if needed, at the time of our future filings, and also disclose that if financing or other sources of capital are required, it may dilute the present shareholders equity positions in our company.

The potential sources of cash available to us are as follows:

1. Equity investment from investors
  2. Strategic investment through alliances with major fuel vendors, fuel fabricators and/or other strategic parties during the next three years, to support the remaining research and development activities required to further enhance and complete the development of our fuel products to a commercial stage.
-

Based on the above, the Company will provide the following disclosures in future filings, beginning with its Form 10-K for the year ended December 31, 2012, to the extent such disclosures are applicable as of the date of such future filings. We have not completed our budget for the calendar year 2013 nor closed our books for 2012, so we have used the September 30, 2012 working capital and liquidity numbers to make the below proposed future disclosure.

#### Liquidity and Working Capital

At September 30, 2012, we had working capital of approximately \$5.6 million. Our current monthly cash flow shortfall from operations is approximately \$200,000 to \$300,000 per month. Based on this monthly cash flow shortfall, we expect to have sufficient working capital to fund our current operations for the next 12 months.

We have been actively seeking new consulting work in 2012 from several countries interested in our nuclear consulting services (Consulting Business Segment). We have written proposals out to these prospects, which as of the date of this filing are pending approval. Although we anticipate securing new consulting work from one or more of these prospects, we cannot determine as of the date of this filing if and when a new contract will be awarded to us. We believe that the margin earned on these new contracts will favorably impact our short-term and long-term liquidity and will supplement the funding for the anticipated additional outside research and development activities with respect to our nuclear fuel technologies of \$3 million to \$4 million over the next 12-15 months.

2. Please tell us how you determined that you have available liquidity sufficient to sustain your current operations at their current operating levels for the next 12 months. Given your anticipated increased spending on outside consulting research and development, it appears that you would not have sufficient liquidity to sustain current operating levels for the next 12 months.

#### RESPONSE:

We have disclosed our anticipated spending on research and development for the next 12-15 months as being between \$3 million to \$4 million, however as of the date of this letter, as mentioned above, we are uncertain as to the timing of when these future cash disbursements will take place. We are also uncertain, as of the date of this letter, if we will have additional consulting contracts where the gross profit from these contracts will fund all or a portion of the future cash requirements of this anticipated research and development spending. Our current working capital position exceeds our current and expected cash flow requirements for the next 12 months. The September 30, 2012 working capital position of \$5.6 million funds our current monthly working capital shortfall (approximate monthly range of \$200,000 to \$300,000 – average of \$250,000 shortfall per month) over the next 22 months. Also, even if we do not secure any additional consulting agreements in 2013, we expect our working capital to fund our current operations and also fund some of the additional research and development activities over the next 12 months.

---

3. Please clarify whether the current average operating expenses you disclose that you expect to incur over the next 12-15 months of \$0.6 million per month is intended to be a cash measure, or whether this includes non-cash expenses as well.

RESPONSE:

The \$0.6 million in our current total operating expenses is intended to be a cash measure of the total of our cost of services, including selling, research and development, general and administrative expenses. Please note that this total operating expense amount of \$0.6 million per month includes both variable and fixed costs incurred by the Company. We do not expect our consulting revenue to decrease but if it did, we would be able to decrease the amount of variable costs incurred each month working on our consulting contracts and have sufficient working capital to fund our operations over the next 12 months.

\*\*\*\*\*

We hereby acknowledge that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you have any questions or would like to discuss our responses above, you may contact our outside counsel, Brian Buck of Pillsbury Winthrop Shaw Pittman LLP, at 202-663-8347, or myself at 571-730-1203.

Sincerely,

/s/ James Guerra  
Mr. James Guerra  
Chief Financial Officer  
Lightbridge Corporation

---