LIGHTBRIDGE Corp Form S-3/A November 19, 2009

As filed with the Securities and Exchange Commission on November 19, 2009

Registration No. 333-

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

FORM S-3/A (Amendment No. 1) REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

> LIGHTBRIDGE CORPORATION (Exact name of Registrant as specified in its charter)

NEVADA (State or other jurisdiction of incorporation or organization)

91-1975651 (I.R.S. Employer Identification No.)

1600 Tysons Boulevard, Suite 550 McLean, Virginia 22102 571.730.1200

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Seth Grae CEO and President 1600 Tysons Boulevard, Suite 550 McLean, Virginia 22102 571.730.1200 (Names and addresses, including zip codes, and telephone numbers, including area codes, of agents for service)

With copies to:

Louis A. Bevilacqua, Esq. Joseph R. Tiano, Esq. Pillsbury Winthrop Shaw Pittman LLP 2300 N Street, N.W. Washington, D.C. 20037 202.663.8000

Approximate date of commencement of proposed sale to the public: From time to time after this Registration

Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. "

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment for an offering pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. "

Indicate by check mark whether the registrant is a large accelerated filer, and accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated Accelerated filer o filer o

Non-acceleratedSmaller reportingfiler ocompany x

CALCULATION OF REGISTRATION FEE

	Amount to	Proposed Maximum	Proposed Maximum	
	be	Offering	Aggregate	Amount of
Title of each class of	Registered	Price Per	Offering Price	Registration Fee
securities to be registered	(1)(2)(3)	Unit	(1)(2)(3)	(4)
Common Stock, par value \$0.001 par share				
Preferred Stock, par value \$0.001 par share				
Debt Securities				
Warrants				
Units				
Total			\$ 50,000,000	\$ 2,790(5)

(1) There are being registered hereunder such indeterminate number of shares of common stock and preferred stock, such indeterminate principal amount of debt securities, such indeterminate number of warrants to purchase common stock, preferred stock and/or debt securities, and such indeterminate number of units as may be sold by

the registrant from time to time, which together shall have an aggregate initial offering price not to exceed \$50,000,000 or its equivalent in any other currency, currency units, or composite currency or currencies. If any debt securities are issued at an original issue discount, then the offering price of such debt securities shall be in such greater principal amount at maturity as shall result in an aggregate offering price not to exceed \$50,000,000, less the aggregate dollar amount of all securities previously issued hereunder. Any securities registered hereunder may be sold separately or as units with the other securities registered hereunder. The proposed maximum offering price per unit will be determined, from time to time, by the registrant in connection with the issuance by the registrant of the securities registered hereunder.

- (2)Not specified with respect to each class of securities to be registered pursuant to General Instruction II.D. of Form S-3 under the Securities Act.
- (3) Subject to footnote (1), there are also being registered hereunder an indeterminate principal amount or number of shares of debt securities, preferred stock or common stock that may be issued upon conversion of, or in exchange for, debt securities or preferred stock registered hereunder or upon exercise of warrants registered hereunder, as the case may be.
- (4) Calculated pursuant to Rule 457(o) under the Securities Act, which permits the registration fee to be calculated on the basis of the maximum aggregate offering price of all securities listed.
- (5) A fee of \$2,790 was previously paid in connection with the filing of the initial registration statement on Form S-3 on October 26, 2009 (Commission File No. 333-162671).

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS

Subject to completion, dated November 19, 2009

\$50,000,000

LIGHTBRIDGE CORPORATION

Common Stock Preferred Stock Debt Securities Warrants Units

We may offer, issue and sell from time to time our common stock, preferred stock, debt securities, warrants or units up to \$50,000,000 or its equivalent in any other currency, currency units, or composite currency or currencies in one or more issuances. We may offer and sell the securities separately, together or as units, in separate classes or series, in amounts, at prices and on terms to be determined at the time of sale. This prospectus provides a general description of offerings of these securities that we may undertake.

Each time we sell our securities pursuant to this prospectus, we will provide the specific terms of such offering in a supplement to this prospectus. The prospectus supplement may also add, update, or change information contained in this prospectus. You should read this prospectus and the accompanying prospectus supplement, together with additional information described under the heading "Where You Can Find More Information" and "Information Incorporated by Reference," before you make your investment decision.

This prospectus may not be used to offer or sell our securities unless accompanied by a prospectus supplement. The information contained or incorporated in this prospectus or in any prospectus supplement is accurate only as of the date of this prospectus, or such prospectus supplement, as applicable, regardless of the time of delivery of this prospectus or any sale of our securities.

Our common stock is listed on the NASDAQ Capital Market under the symbol "LTBR". On November 18, 2009, the last reported per share sale price of our common stock was \$5.03.

We may offer securities through underwriting syndicates managed or co-managed by one or more underwriters, through agents, or directly to purchasers. The prospectus supplement for each offering of securities will describe the plan of distribution for that offering. For general information about the distribution of securities offered, please see "Plan of Distribution" in this prospectus.

See the "Risk Factors" section of our filings with the SEC and the applicable prospectus supplement for certain risks that you should consider before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus or any prospectus supplement is truthful or complete. Any

representation to the contrary is a criminal offense.

The date of this prospectus is , 2009

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a "shelf" registration process. Under this shelf registration process, we may sell our securities described in this prospectus in one or more offerings up to a total dollar amount of \$50,000,000. Each time we offer our securities, we will provide you with a supplement to this prospectus that will describe the specific amounts, prices and terms of the securities we offer. The prospectus supplement may also add, update or change information contained in this prospectus. This prospectus, together with applicable prospectus supplements and the documents incorporated by reference in this prospectus and any prospectus supplements, includes all material information relating to this offering. Please read carefully both this prospectus and any prospectus supplement together with additional information described below under "Where You Can Find More Information" and "Information Incorporated by Reference."

You should rely only on the information contained in or incorporated by reference in this prospectus and any applicable prospectus supplement. We have not authorized anyone to provide you with different or additional information. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of securities described in this prospectus. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or any prospectus supplement, as well as information we have previously filed with the SEC and incorporated by reference, is accurate as of the date on the front of those documents only. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus may not be used to consummate a sale of our securities unless it is accompanied by a prospectus supplement.

USE OF TERMS

Except as otherwise indicated by the context, all references in this prospectus to (i) "Lightbridge," "we," "us," "our," "or Company," or "the Company" are to Lightbridge Corporation, a Nevada corporation, and its consolidated subsidiaries; (ii) "Securities Act" are to the Securities Act of 1933, as amended; and (iii) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

LIGHTBRIDGE CORPORATION

We are a provider of nuclear energy consulting and strategic advisory services and a developer of proprietary nuclear fuel designs, each of which will be described in the following sections.

Consulting and Strategic Advisory Services Business Segment

We are primarily engaged in the business of assisting commercial and governmental entities with developing and expanding their nuclear industry capabilities and infrastructure. We provide integrated strategic advice across a range of expertise areas including, for example, nuclear reactor procurement and deployment, reactor and fuel technology, international relations and regulatory affairs.

Due to the relatively limited growth in the nuclear energy industry during the 1980's and 1990's, and corresponding limited recruitment into the industry, the cadre of engineers, managers and other nuclear energy industry experts is aging. In the nuclear renaissance, we believe that the industry will be challenged in acquiring and retaining sufficient qualified expertise. Moreover, in countries studying new nuclear energy programs, the number of qualified nuclear energy personnel is very limited, and we believe that those countries will need to rely on significant support from non-domestic service providers and experts to ensure success in those programs.

Our emergence in the field of nuclear energy consulting is in direct response to the need for independent assessments and highly qualified technical consulting services from countries looking to establish nuclear energy programs, by providing a blueprint for safe, clean, efficient and cost-effective non-proliferative nuclear power. We offer full-scope strategic planning and advisory services for new and growing existing markets. Furthermore, we only engage with commercial entities and governments that are dedicated to non-proliferative and transparent nuclear programs. Our consulting services are expert and relationship based, with particular emphasis on top-of-mind issues of key decision makers in senior positions within governments or companies, as well as focus on overall management of nuclear energy programs. To date, substantially all of our revenues are derived from our business segment which provides nuclear consulting services to entities within the United Arab Emirates

Technology Business Segment

For most of the past decade we have been engaged in the development of proprietary nuclear fuel designs which we ultimately intend to introduce for sale into two markets: (1) nuclear fuel designs for use in commercial nuclear power plants and (2) nuclear fuel designs for reactor-grade plutonium disposition. In addition, we have a conceptual nuclear fuel design for weapons-grade plutonium disposition. These three types of fuel design are primarily for use in existing or future VVER-1000 light water reactors. We have also been conducting research and development related to a variant of these nuclear fuel designs for use in existing pressurized water reactors.

Our future customers may include nuclear fuel fabricators, nuclear power plants and/or the U.S. or international governments.

To date, our operations have been devoted primarily to the development and demonstration of our nuclear fuel designs, developing strategic relationships within and outside of the nuclear power industry, securing political and financial support from the U.S. and Russian governments, and the filing of patent applications (including related administrative functions).

On August 3, 2009, we entered into an Agreement for Consulting Services with Areva, pursuant to which we will conduct the first phase of an investigation of specific topics of thorium fuel cycles in Areva's light water reactors, or LWRs. This first phase will focus on providing initial general results relating to evolutionary approaches to the use of thorium in Areva's LWRs, specifically within Areva's Evolutionary Power Reactor. We will receive total fees of \$550,000 for services provided pursuant to the Consulting Agreement. The anticipated second phase and further phases of the collaboration, including a detailed study of evolutionary and longer-term thorium fuel concepts, will be conducted in accordance with additional collaborative agreements based upon the results of the first phase.

The first and second phases of the collaboration between us and Areva are being conducted with the intention of future cooperation agreements between the two parties in order to develop and set up new products and technologies related to thorium fuel concepts. Areva's use of Thorium Power's intellectual property for commercial purposes or any purpose other than as specified in the Agreement would be separately negotiated on a royalty basis. The initial term of the Agreement for Consulting Services is 12 months, with an additional 14 month term if the parties decide to perform a preliminary review of thermal hydraulic characteristics and fuel behavior for the selected concepts for an EPR 18-month equilibrium cycle.

The Agreement for Consulting Services replaces and supersedes the Initial Collaborative Agreement we entered into with Areva on July 23, 2009, which we reported on SEC Form 8-K filed on July 23, 2009.

On August 3, 2009, we entered into a Collaborative Framework Agreement with Areva, as the next step contemplated by the Initial Collaborative Agreement and the Agreement for Consulting Services, pursuant to which we will establish a joint steering committee with Areva, consisting of two employees from each party. The steering committee will be responsible for reviewing project proposals, will be empowered to make scientific and/or technical decisions and to allocate the resources required to implement future collaborative projects. All research and development activities carried out under a collaboration project will be governed by the general terms of the Collaboration Framework Agreement and the specific terms of project plan approved by the steering committee. The term of the Collaborative Framework Agreement is for a period of 5 years and may be extended upon written agreement of the parties.

To date, we have only had minimal direct revenues from our research and development activities regarding our proprietary nuclear fuel technology, and we do not expect that we will generate licensing revenues from this business for several years, until our fuel designs can be fully tested and demonstrated and we obtain the proper approvals to use our nuclear fuel designs in nuclear reactors. We believe we can leverage our general nuclear technology, business and regulatory expertise as well as industry relationships, to optimize our technology development plans and create integrated advisory services with the highest levels of expertise and experience in the nuclear power industry. Additionally, our knowledge of and credibility in addressing proliferation related issues that we have developed over many years, benefit our new consulting business. Our advisory services include a focus on non-proliferation, safety and operational transparency of nuclear power programs.

The address of our principal executive office is 1600 Tysons Boulevard, Suite 550, McLean, Virginia 22102 and our telephone number is 571.730.1200. We maintain a website at www.Ltbridge.com that contains information about our Company, though no information contained on our website is part of this prospectus.

RISK FACTORS

An investment in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the specific risk factors discussed in the sections entitled "Risk Factors" contained in our most recent Annual Report on Form 10-K filed on March 26, 2009 and in any applicable prospectus supplement and our other filings with the SEC and incorporated by reference in this prospectus, together with all of the other information contained in this prospectus, or any applicable prospectus supplement. Additional risks and uncertainties not presently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any prospectus supplement or any additional risks and uncertainties actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our securities could decline and you might lose all or part of your investment.

FORWARD-LOOKING STATEMENTS

This prospectus contains or incorporates forward-looking statements within the meaning of section 27A of the Securities Act and section 21E of the Exchange Act. These forward-looking statements are management's beliefs and assumptions. In addition, other written or oral statements that constitute forward-looking statements are based on current expectations, estimates and projections about the industry and markets in which we operate and statements may be made by or on our behalf. Words such as "should," "could," "may," "expect," "anticipate," "intend," "plan," "belier "estimate," variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. There are a number of important factors that could cause our actual results to differ materially from those indicated by such forward-looking statements.

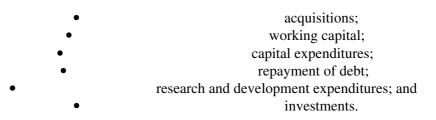
We describe material risks, uncertainties and assumptions that could affect our business, including our financial condition and results of operations, under "Risk Factors" and may update our descriptions of such risks, uncertainties and assumptions in any prospectus supplement. We base our forward-looking statements on our management's beliefs and assumptions based on information available to our management at the time the statements are made. We caution you that actual outcomes and results may differ materially from what is expressed, implied or forecast by our forward-looking statements. Accordingly, you should be careful about relying on any forward-looking statements. Reference is made in particular to forward-looking statements regarding growth strategies, financial results, product and service development, competitive strengths, intellectual property rights, litigation, mergers and acquisitions, market acceptance or continued acceptance of our products and services, accounting estimates, financing activities, ongoing contractual obligations and sales efforts. Except as required under the federal securities laws and the rules and

regulations of the SEC, we do not have any intention or obligation to update publicly any forward-looking statements after the distribution of this prospectus, whether as a result of new information, future events, changes in assumptions, or otherwise.

USE OF PROCEEDS

Unless specified otherwise in the applicable prospectus supplement, we expect to use the net proceeds we receive from the sale of the securities offered by this prospectus and the accompanying prospectus supplement for general corporate purposes, which may include, among other things:

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The precise amount and timing of the application of such proceeds will depend upon our funding requirements and the availability and cost of other capital. Pending any specific application, we may initially invest funds in short-term marketable securities or apply them to the reduction of short-term indebtedness. Additional information on the use of net proceeds from the sale of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering.

RATIOS OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratios of consolidated earnings to fixed charges for the periods indicated:

	Nine Months Ende	d			24		
	September 30,			Year Ended December 31,			
	2009	2008	2007	2006	2005	2004	
Ratio of earnings to fixed							
charges and preferred							
stock dividends:	(a)	(a)	(b)	(a)	(c)	(d)	

The ratio of earnings to fixed charges is computed by dividing (i) income (loss) before income taxes, discontinued operations and the cumulative effect of accounting changes less equity in the income (loss) of investments plus fixed charges less the preference securities dividend requirement of consolidated subsidiaries by (ii) fixed charges. Fixed charges include, as applicable, interest expense, amortization of debt issuance costs, the estimated interest component of rent expense (calculated as one-third of net rent expense) and the preference securities dividend requirement of consolidated subsidiaries.

(a) We did not have any fixed charges for the nine months ended September 30, 2009 or for the years ended December 31, 2008 or 2006.

(b) Earnings for the year ended December 31, 2007 were inadequate to cover fixed charges. The coverage deficiency to cover fixed charges was \$876.

(c) Earnings for the year ended December 31, 2005 were inadequate to cover fixed charges. The coverage deficiency to cover fixed charges was \$411,693.

(d) Earnings for the year ended December 31, 2004 were inadequate to cover fixed charges. The coverage deficiency to cover fixed charges was \$60,492.

DESCRIPTION OF CAPITAL STOCK

Our Articles of Incorporation authorizes us to issue 500,000,000 shares of common stock, \$0.001 par value per share, and 50,000,000 shares of preferred stock, \$0.001 par value per share. As of November 11, 2009, there were 10,965,566 shares of common stock, and no shares of preferred stock, outstanding.

The following description of our capital stock, and any description of our capital stock in a prospectus supplement may not be complete and is subject to Nevada law and the actual terms and provisions contained in our articles of incorporation and bylaws, each as amended from time to time.

Common Stock. All outstanding common stock is, and any stock issued under this prospectus will be, fully paid and non-assessable. Subject to the rights of the holders of our outstanding preferred stock, holders of common stock:

• are entitled to any dividends or other d