

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

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

LECTEC CORPORATION

(Exact name of registrant as specified in its charter)

Minnesota
(State or other jurisdiction of
incorporation or organization)

41-1301878
(I.R.S. Employer
Identification No.)

**1407 South Kings Highway
Texarkana, Texas 75501**
(Address, including zip code, of registrant's principal executive offices)

LECTEC CORPORATION 2010 STOCK INCENTIVE PLAN
(Full title of the plan)

**Gregory G. Freitag
Chief Executive Officer
LecTec Corporation
1407 South Kings Highway
Texarkana, Texas 75501
(903) 832-0993**

(Name, address and telephone number, including area code, of agent for service)

Indicate by check mark, whether the registrant is a large accelerated filer, an 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.

Large accelerated filer Accelerated Filer Non-accelerated filer Smaller Reporting Company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock (\$0.01 par value per share): reserved for issuance under LecTec Corporation 2010 Stock Incentive Plan	450,000	\$2.75(2)	\$1,237,500(2)	\$143.67

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "*Securities Act*"), this Registration Statement shall also cover any additional shares of the registrant's Common Stock that become issuable under the 2010 Stock Incentive Plan by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of outstanding shares of registrant's Common Stock.
- (2) Estimated solely for the purpose of calculating the registration fee, pursuant to Rule 457(c) under the Securities Act, and based on the average of the high and low sale prices of the registrant's Common Stock, as quoted on the Over-the-Counter Bulletin Board, on April 4, 2011.

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed with the Securities and Exchange Commission (“*Commission*”) by LecTec Corporation (hereinafter “*we*,” “*our*,” “*us*” or “*LecTec*”), are incorporated by reference in this registration statement:

(a) Our Annual Report on Form 10–K for the fiscal year ended December 31, 2010, filed with the Commission on March 30, 2011.

(b) Our Current Reports on Form 8–K filed with the Commission on January 27, 2011, February 22, 2011 and March 28, 2011.

(c) The description of our Common Stock to be offered hereby is contained in our Registration Statement on Form 8–A filed with the Commission on August 28, 1987 pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”), including any amendment or report filed for the purpose of updating such description.

All documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this registration statement which indicates that all securities offered hereby have been sold or which deregisters all securities remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not Applicable.

Item 6. Indemnification of Directors and Officers.

Minnesota Statutes, Section 302A.521, subd. 2, requires LecTec to indemnify a person made or threatened to be made a party to a proceeding by reason of the former or present official capacity of the person with respect to LecTec, against judgments, penalties, fines, settlements, and reasonable expenses, including attorneys’ fees and disbursements, incurred by the person in connection with the proceeding if certain statutory standards are met unless LecTec amends its Articles of Incorporation, as amended, or Amended and Restated Bylaws to prohibit or condition such indemnification rights. In addition, Section 302A.521, subd. 3 requires payment by LecTec, upon written request, of reasonable expenses in advance of final disposition of the proceeding in certain circumstances unless LecTec amends its articles of incorporation or bylaws to prohibit or condition such expense advancement rights. Under Section 302A.521, subd. 4, LecTec may amend its Articles of Incorporation, as amended, or Amended and Restated Bylaws to prohibit or condition such indemnification or expense advancement rights. A decision as to required indemnification is made by a disinterested majority of LecTec’s Board of Directors present at a meeting at which a disinterested quorum is present, or by a designated committee of the Board of Directors consisting of disinterested directors, by special legal counsel, by the shareholders or by a court. A director is disinterested if he or she is not a party to the proceeding for which indemnification or expense advancement is at issue. Section 302A.521 contains detailed terms regarding such right of indemnification and reference is made thereto for a complete statement of such indemnification rights.

LecTec's Amended and Restated Bylaws provide that the directors and officers of LecTec shall have the right to indemnification provided by Minnesota Statutes, Section 302A.521, as now enacted or hereafter amended. Under Section 302A.521, subd. 2, indemnification will be available only where an officer, director or employee can establish that he or she: (i) has not been indemnified by another organization with respect to the same acts or omissions; (ii) acted in good faith; (iii) received no improper personal benefits; (iv) in the case of a criminal proceeding, had no reasonable cause to believe the conduct was unlawful; and (v) reasonably believed the conduct was in the best interests of the corporation or, in certain circumstances, reasonably believed that the conduct was not opposed to the best interests of LecTec. As permitted by Minnesota Statutes, Section 302A.521, LecTec's Articles of Incorporation, as amended, provide that a director shall have no personal liability to LecTec or its shareholders for monetary damages for breach of his or her fiduciary duty as a director, to the extent permitted by law, *provided, however*, that LecTec's Articles of Incorporation, as amended, shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its shareholders; (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) dividends or other distributions of corporate assets that are in contravention of certain statutory or contractual restrictions; (iv) for any transaction from which the director derived an improper personal benefit; or (v) for any act or omission occurring prior to the effective date of the applicable provision of LecTec's Articles of Incorporation, as amended.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

- 3.1 Articles of Incorporation of LecTec Corporation, as amended (incorporated herein by reference to LecTec's Form S-18 Registration Statement (file number 33-9774C) filed on October 31, 1986 and amended on December 12, 1986)
 - 3.2 Bylaws of LecTec Corporation (incorporated herein by reference to LecTec's Form S-18 Registration Statement (file number 33-9774C) filed on October 31, 1986 and amended on December 12, 1986)
 - 5.1 Opinion of Dorsey & Whitney LLP
 - 10.1 LecTec Corporation 2010 Stock Incentive Plan (incorporated herein by reference to Appendix A to LecTec's 2010 Proxy Statement filed on August 20, 2010)
 - 23.1 Consent of Lurie Besikof Lapidus & Company, LLP
 - 23.2 Consent of Dorsey & Whitney LLP (contained in Exhibit 5.1 to this Registration Statement)
 - 24.1 Power of Attorney (contained on signature page to this Registration Statement)
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Item 9. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Texarkana, State of Texas, on the 14th day of April, 2011.

LECTEC CORPORATION

By: /s/ Gregory G. Freitag

Gregory G. Freitag

Chief Executive Officer and Chief Financial Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Gregory G. Freitag, his true and lawful attorney-in-fact and agent, with the powers of substitution and revocation, for him and in his name, place and stead, in any and all capacities, to sign a Registration Statement on Form S-8, and any and all amendments (including post-effective amendments) thereto, relating to the issuance of shares of common stock of LecTec Corporation pursuant to the LecTec Corporation 2010 Stock Incentive Plan and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto such attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming that such attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on the 14th day of April, 2011.

<u>Signature</u>	<u>Title</u>
<u>/s/ Gregory G. Freitag</u> Gregory G. Freitag	Chief Executive Officer, Chief Financial Officer and Director (principal executive officer and principal financial and accounting officer)
<u>/s/ Timothy M. Heaney</u> Timothy M. Heaney	Director
<u>/s/ Lowell Hellervik</u> Lowell Hellervik	Director
<u>/s/ Robert J. Rudelius</u> Robert J. Rudelius	Director
<u>/s/ Elmer Salovich, M.D.</u> Elmer Salovich, M.D.	Director

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[Dorsey and Whitney LLP Letterhead]

April 14, 2011

LecTec Corporation
1407 South Kings Highway
Texarkana, Texas 765501

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to LecTec Corporation, a Minnesota corporation (the "*Company*"), in connection with the registration under the Securities Act of 1933, as amended, on a registration statement on Form S-8 (the "*Registration Statement*") of an aggregate of 450,000 shares of the Company's common stock, \$0.01 par value per share (the "*Shares*"), issuable under the LecTec Corporation 2010 Stock Incentive Plan (the "*Plan*").

We have examined such documents and have reviewed such questions of law as we have considered necessary and appropriate for the purposes of this opinion. In rendering our opinion set forth below, we have assumed the authenticity of all documents submitted to us as originals, the genuineness of all signatures and the conformity to authentic originals of all documents submitted to us as copies. We have also assumed the legal capacity for all purposes relevant hereto of all natural persons. As to questions of fact material to our opinion, we have relied upon certificates of officers of the Company and of public officials.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance, delivery and payment therefor in accordance with the terms of the Plan, and any relevant agreements thereunder, will be validly issued, fully paid and nonassessable.

Our opinion expressed above is limited to the laws of the State of Minnesota.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. The foregoing opinion is being furnished to you solely for your benefit and may not be relied upon by, nor may copies be delivered to, any other person without our prior written consent.

Very truly yours,

/s/ Dorsey & Whitney LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report, dated March 30, 2011, relating to the financial statements which appear in LecTec Corporation's Annual Report on Form 10-K for the year ended December 31, 2010.

/s/ LURIE BESIKOF LAPIDUS & COMPANY, LLP

Minneapolis, Minnesota

April 15, 2011