UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

(Exact name of registrant as specified in its charter)

Dr. Louis F. Centofanti Chief Executive Officer

8302 Dunwoody Place, Suite 250 Atlanta, Georgia 30350 (Name and address of agent for service)

(770) 587-9898 (Telephone number, including area code of agent for service)

Copy to: Irwin H. Steinhorn, Esquire CONNER & WINTERS, LLP

One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102

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 O
Non-accelerated filer O(Do not check if a smaller reporting company)

Accelerated filer X
Smaller reporting company O

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered	Proposed maximum offering price per share ⁽²⁾	Proposed maximum aggregate offering price ⁽²⁾	Amount of registration fee ⁽²⁾
Common Stock, par value \$.001 per share	1,000,000 ⁽¹⁾	\$2.58	\$2,580,000	\$101.39

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also covers any additional shares of common stock which become issuable under the Plan by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without receipt of consideration which results in an increase in the number of shares of the outstanding common stock of the Registrant.
- (2) In accordance with Rule 457(h), the maximum offering price and the calculation of the registration fee are based upon the basis of the average of the high and low prices for the Common Stock on August 15, 2008, of \$2.58, as reported on The Nasdaq Stock Market, Inc.

EXPLANATORY NOTE

Perma-Fix Environmental Services, Inc. (the "Company") is filing this registration statement pursuant to General Instruction E of Form S-8 (the "Registration Statement") to register an additional 1,000,000 shares of the Company's common stock which may be issued under the Company's 2003 Outside Directors Stock Plan, as amended August 5, 2008. Such shares are additional securities of the same class as other securities for which the Registration Statement on Form S-8, file no. 333-110995, was filed with the Securities and Exchange Commission on December 5, 2003.

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The documents containing the information specified in Part I of Form S-8 (Items 1 and 2) will be sent or delivered to the participants as specified by Rule 428(b)(1) under the Securities Act of 1933, as amended (the "Securities Act"). In accordance with the rules and regulations of the Securities and Exchange Commission and the instructions to Form S-8, such documents are not being filed as part of this registration statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

PART II. INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Company with the Securities Exchange Commission are incorporated herein by reference:

(a) The Company's Amendment No. 1 to Annual Report on Form 10-K/A for the fiscal year ended December 31, 2007, filed on April 21, 2008;

- (b) The Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008 and June 30, 2008, filed on May 12, 2008 and August 11, 2008, respectively;
- (c) The Company's Current Reports on Form 8-K, filed on April 10, April 24, May 8, May 20, June 5, June 6, June 24, 2008, August 7, 2008, August 8, 2008, and August 11, 2008; and
- (d) Description of the Company's Common Stock set forth in the Registrant's Form S-1 Registration Statement, No. 33-51874, including any amendment or report filed for the purposes of updating such description.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment, which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents (such documents, and the documents listed above, being hereinafter referred to as "Incorporated Documents"). Any statement contained in an Incorporated Document shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed Incorporated Document modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The Registrant is incorporated under the laws of the State of Delaware. Section 145 of the General Corporation Law of the State of Delaware (the "DGCL") provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person was an officer, director, employee or agent of such corporation, or is or was serving at the request of such person as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was illegal. A Delaware corporation may indemnify any persons who are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person was a director, officer, employee or

agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interests except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses which such officer or director has actually and reasonably incurred. The Registrant's certificate of incorporation and bylaws provide for the indemnification of directors and officers of the Registrant to the fullest extent permitted by the DGCL.

The Registrant's Restated Certificate of Incorporation provides for the indemnification by the Registrant of its directors and officers to the full extent permitted by Section 145 of the General Corporation Law of the State of Delaware (or any similar provision or provisions of applicable law at the time in effect). This indemnification is not deemed exclusive of any other rights to which those seeking indemnification might be entitled under any bylaw, agreement, vote of shareholders or disinterested directors, or otherwise, both as to action in an official capacity and as to action in another capacity while holding such office. This indemnification will continue as to such person who was a director or officer of the Registrant, but has ceased to be a director or officer and inure to the benefit of the heirs, executors and administrators of such person. The Registrant's bylaws also provide that the Registrant will indemnify any person who was or is a party or has threatened to be made a party to any action by reason of the fact that he or she is or was a director, officer, employee or agent of the Registrant or is or was serving at the request of the Registrant as a director, officer, employee or agent of another entity, if he or she acted in good faith and in a manner that he or she reasonably believed to be in or not opposed to the best interests of the Registrant and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

The Restated Certificate of Incorporation of the Registrant limits the liability of its directors to the corporation or its stockholders for any monetary damages for breaches of fiduciary duty as a director. Under the Registrant's Restated Certificate of Incorporation, as amended, and as permitted under the Delaware General Corporation Law, directors are not liable to the Registrant or its stockholders for monetary damages arising from a breach of their fiduciary duties as directors. Such provision, however, does not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the Registrant or its stockholders; (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law; (iii) under Section 174 of the Delaware General Corporation Law (relating to liability of directors for unlawful payment of dividend or unlawful stock purchase or redemption); or (iv) for any transaction from which the director derived an improper personal benefit. The director's limitations of liability described above may not limit a director's liability for violation of, or otherwise relieve the Registrant or its directors from the necessity of complying with, federal or state securities laws or affect the availability of equitable remedies, such as injunctive relief or rescission. However, as a practical matter, equitable remedies may not be available in all situations, and there may be instances in which no effective remedy is available at all.

The foregoing summaries are necessarily subject to the complete text of the statutes, the Restated Certificate of Incorporation and bylaws referred to above, and are qualified in their entirety by reference thereto.

Item 7. Exemption from Registration Claimed

Not applicable.

Item 8. Exhibits

Exhibit Number	Description of Document				
4.1	Restated Certificate of Incorporation, as amended, of the Registrant ⁽¹⁾				
4.2	Bylaws of the Registrant ⁽²⁾				
<u>5</u>	Opinion of Conner & Winters, LLP				
<u>23.1</u>	Consent of Conner & Winters, LLP (incorporated into Exhibit 5 hereto)				
<u>23.2</u>	Consent of BDO Seidman, LLP				
<u>24.1</u>	Power of Attorney (included on the signature pages to the Registration Statement)				
99.1	Perma-Fix Environmental Services, Inc. 2003 Outside Directors Stock Plan ⁽³⁾				
<u>99.2</u>	First Amendment to Perma-Fix Environmental Services, Inc 2003 Employee Stock Purchase Plan				

⁽¹⁾ Filed as Exhibit 3.1 to the Registrant's Form 10-Q for the quarter ended June 30, 2002, filed on August 14, 2002, and is incorporated herein by reference.

Item 9. Undertakings.

- (a) The Registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made of the securities registered hereby, 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 (the "Securities Act");
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental

Filed as Exhibit 4.3 to the Registration Statement on Form S-1 (Registration No. 33-51874), filed on September 11, 1992, and is incorporated herein by reference.

Filed as Exhibit B to the Registrant's Proxy Statement relating to the Registrant's 2003 Annual Meeting, filed June 19, 2003, and is incorporated herein by reference.

change in the information set forth in this Registration Statement; and

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

provided, however, that the undertakings set forth in paragraphs (a)(i) and (a)(ii) above do not apply if the Registration Statement is on Form S-3 or Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") that are incorporated by reference in this Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, 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 remaining unsold at the termination of the offering.
- (b) That, for purpose of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in this Registration Statement shall be deemed to be a new Registration Statement relating to the Securities offered herein, 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 rising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions of the Restated Certificate of Incorporation or Bylaws of the Registrant and the provisions of the laws of the State of Delaware described in Item 6, above, 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 Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expense 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 Securities 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 Form S-8 Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Atlanta, State of Georgia, on the 19th day of August 2008.

Perma-Fix Environmental Services, Inc.

By /s/ Dr. Louis F. Centofanti

Dr. Louis F. Centofanti Chairman of the Board Chief Executive Officer

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints DR. LOUIS F. CENTOFANTI and STEVEN BAUGHMAN, and each or either of them, his or her attorney-in-fact, with the full power of substitution and resubstitution, for him or her in any and all capacities, to sign any amendments (including post-effective amendments) to this Registration Statement on Form S-8 and to file the same, with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, and each of them, full power and authority to do and perform each and every act necessary to be done in connection therewith, as fully to all interests and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, or any of them, or their or his or her substitutes, may lawfully or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933 this report has been signed below by the following persons in capacities and on the dates indicated.

Name	Title		Date	
/s/ Dr. Louis F. Centofanti Dr. Louis F. Centofanti	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	Date	August 19, 2008	
/s/ Steven T. Baughman Steven T. Baughman	Chief Financial Officer (Principal Financial and Accounting Officer)	Date	August 19, 2008	
/s/ Jon Colin Jon Colin	Director	Date	August 19, 2008	
/s/ Robert L. Ferguson Robert L. Ferguson	Director	Date	August 19, 2008	
/s/ Jack Lahav Jack Lahav	Director	Date	August 19, 2008	
/s/ Joe R. Reeder Joe R. Reeder	Director	Date	August 19, 2008	
/s/ Larry M. Shelton Larry M. Shelton	Director	Date	August 19, 2008	

/s/ Charles E. Young	Director	Date	August 19, 2008
Charles E. Young			
/s/ Mark A. Zwecker	Director	Date	August 19, 2008
Mark A. Zwecker			
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CONNER&WINTERS ATTORNEYS AND COUNSELORS AT LAW

OKLAHOMA CITY

Irwin H. Steinhorn John W. Funk Jared D. Giddens Robin F. Fields Kiran A. Phansalkar Victor F. Albert Mitchell D. Blackburn Mark H. Bennett Brvan I. Wells J. Dillon Curran C. Brad Williams Justin L. Pybas John J. Griffin Crystal A. Johnson

Peter B. Bradford

TULSA

Henry G. Will Lynnwood R. Moore, Jr. Robert A. Curry Steven W. McGrath D. Richard Funk J. Ronald Petrikin Larry B. Lipe James E. Green, Jr. Martin R. Wing John W. Ingraham Andrew R. Turner

Gary L. Betow Gentra Abbey Sorem R. Kevin Redwine Tony W. Haynie Bruce W. Freeman David R. Cordell C. Raymond Patton, Ir. Paul E. Braden Robert J. Melgaard P. Scott Hathaway Lawrence A. Hall Timothy T. Trump Mark E. Dreyer Teresa Meinders Burkett Nancy E. Vaughn Mark D. Berman Katherine G. Coyle Beverly K. Smith Melodie Freeman-Burney R. Richard Love III Robert D. James Stephen R. Ward Jeffrey R. Schoborg Anne B. Sublett J. Ryan Sacra lason S. Taylor Katy Day Inhofe Julia Forrester-Sellers

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Kathryn J. Kindell Alissa A. Hurley led W. Isbell Paige N. Shelton Jason B. Coutant Allison McGrath Gardner Elizabeth G. Zeiders David S. Randolph Kathryn S. Burnett

Joseph J. McCain, Jr. William G. von Glahn Bob F. McCoy

Lynn P. Mattson James R. Ryan Russell H. Harbaugh, Ir. David O. Cordell

NORTHWEST ARKANSAS Randolph L. Jones, Jr. Iohn R. Elrod¹

Robert L. Jones, III Greg S. Scharlau Vicki Bronson Todd P. Lewis¹ P. Joshua Wisley Kerri E. Kobbeman² Amber Prince1

Terri Dill Chadick

Charles E. Scharlau

WASHINGTON, D.C. G. Daniel Miller Donn C. Meindertsma¹ Rabeha S. Kamaluddin¹

Henry Rose¹ Erica L. Summers¹

HOUSTON, TEXAS

Randolph L. Jones, Jr. Jerry D. Redmond, Jr.

DALLAS, TEXAS Kevin H. Good

JACKSON, WYOMING

SANTA FE, NEW MEXICO

Douglas M. Rather

Benjamin C. Conner 1879-1963 John M. Winters, Jr. 1901-1989

¹Not Admitted in Oklahoma ²Not Admitted in Arkansas

August 19, 2008

Perma-Fix Environmental Services, Inc. 8302 Dunwoody Place, Ste. 250 Atlanta, GA 30350

> Re: Perma-Fix Environmental Services, Inc.; Form S-8 Registration Statement First Amendment to 2003 Outside Directors Stock Plan; Our File No. 7034.1

Gentlemen:

We are delivering this opinion to you in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), of the Registration Statement on Form S-8 (the "Registra-tion Statement") of Perma-Fix Environmental Services, Inc., a Delaware corporation (the "Company"), for the registration of (a) an additional 1,000,000 shares of the Company's Common Stock, \$.001 par value (the "Common Stock"), issuable by the Company pursuant to the Company's 2003 Outside Directors Stock Plan, as amended by the First Amendment to 2003 Outside Directors Stock Plan, dated August 5, 2008 (the "First Amendment") (collectively, the "Directors Plan"). As amended, the Directors Plan authorizes the issuance of 2,000,000 shares of Common Stock. The initial 1,000,000 shares authorized for issuance under the Directors Plan are registered under the Form S-8 Registration Statement, No. 333-110995, filed with the Commission on December 5, 2003. This opinion relates only to the additional 1,000,000 shares of Common Stock authorized for issuance pursuant to the First Amendment to the Directors Plan.

In connection with this opinion, the undersigned has examined and relied upon such corporate records, certificates, other documents and questions of law, as we have considered

Perma-Fix Environmental Services, Inc. August 19, 2008 Page 2

necessary or appropriate for the purposes of this opinion, including, but not limited to, the following:

- (a) the Company's Restated Certificate of Incorporation, as amended;
- (b) the Company's Bylaws;
- (c) the Directors Plan;
- (d) Resolutions of the Board of Directors of the Company, dated August 5, 2008;
- (e) Certificate of Good Standing of the State of Delaware, dated August 19, 2008, as to the good standing of the Company; and
- (f) the Registration Statement.

In our examination, we have assumed the genuineness of all signatures, the legal capacity of all persons, the authenticity of all documents submitted as originals, the conformity with the original documents of all documents submitted as certified or photostatic copies, and the authenticity of the originals of such copies. We have further assumed that each recipient of shares of the Company's Common Stock under the Directors Plan is eligible to participate in the Directors Plan and that any shares of the Company's Common Stock to be issued pursuant to the Directors Plan will have been registered in accordance with the Act, absent the application of an exemption from registration, prior to the issuance of such shares.

In reliance upon, and based on, such examination and review, we are of the opinion that the 1,000,000 shares of Common Stock issuable pursuant to the Directors Plan, as amended by the First Amendment, will constitute, when issued pursuant to the terms of such Directors Plan, duly authorized, validly issued, fully paid and nonassessable shares of Common Stock of the Company.

We hereby consent to the filing of this opinion as Exhibit 5 to said Registration Statement.

Very truly yours,

/s/ Conner & Winters, LLP

CONNER & WINTERS, LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Perma-Fix Environmental Services, Inc. Atlanta, Georgia

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 31, 2008, except for Note 20, which is as of April 15, 2008, relating to the consolidated financial statements and financial statement schedule of Perma-Fix Environmental Services, Inc (the "Company") and our report dated March 31, 2008 relating to the effectiveness of the Company's internal control over financial reporting appearing in the Company's Annual Report on Form 10-K/A for the year ended December 31, 2007. Our report on the effectiveness of internal control over financial reporting expresses an adverse opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2007.

/s/ BDO Seidman, LLP Atlanta, Georgia

August 18, 2008

FIRST AMENDMENT to 2003 OUTSIDE DIRECTORS STOCK PLAN

THIS FIRST AMENDMENT TO THE PERMA-FIX ENVIRONMENTAL SERVICES, INC. 2003 OUTSIDE DIRECTORS STOCK PLAN (the "First Amendment") was approved by the Board of Directors (the "Board") of Perma-Fix Environmental Services, Inc. (the "Company") to be effective on June 13, 2008, subject to the approval of the shareholders of the Company.

WHEREAS, Article VII of the 2003 Outside Directors Stock Plan (the "Plan"), provides that the Board may at any time, and from time to time and, in any respect amend or modify the Plan;

WHEREAS, as of June 5, 2008, the maximum number of shares of our common stock that may be issued under the Plan is 1,000,000 shares (subject to adjustment as provided in the 2003 Plan), of which 838,465 have previously been issued or reserved for issuance under the Plan, comprised of 412,465 shares previously been issued under the Plan, and 426,000 shares issuable under outstanding options granted under the Plan;

WHEREAS, in order to continue to attract and retain qualified members of the Board who are not employees of the Company, the Board is of the opinion that it is necessary that the maximum number of shares of Common Stock that may be issued under the Plan be increased from 1,000,000 to 2,000,000 shares (subject to adjustment as provided in the Plan); and,

NOW, THEREFORE, the following amendments to the plan are unanimously adopted by the Board, subject to the approval of the shareholders of the Company:

Amendment to Section 4.1:

Section 4.1 of the Plan is hereby amended by deleting the number "1,000,000" from the first full sentence contained therein and substituting in lieu thereof the number "2,000,000."

The Plan is hereby amended and modified only to the extent specifically amended or modified by this First Amendment to the 2003 Outside Directors Stock Plan. None of the other terms, conditions or provisions of the Plan, is amended or modified by this First Amendment to the 2003 Outside Directors Stock Plan.

Perma-Fix Environmental Services, Inc.

By: /s/ Steven T. Baughman

Steven T. Baughman, Chief Financial Officer