

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

Form 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
For the quarterly period ended September 30, 1997

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 1-11596

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(Exact name of registrant as specified in its charter)

Delaware 58-1954497  
(State or other jurisdiction (IRS Employer  
of incorporation or organization Identification Number)

1940 N.W. 67th Place, Gainesville, FL 32653  
(Address of principal executive offices) (Zip Code)

(352) 373-4200  
(Registrant's telephone number)

N/A  
(Former name, former address and former fiscal year,  
if changed since last report)

Indicate by check mark whether the Registrant (1) has filed  
all reports required to be filed by Section 13 or 15(d) of the  
Securities Exchange Act of 1934 during the preceding 12 months (or  
for such shorter period that the Registrant was required to file  
such reports), and (2) has been subject to such filing requirements  
for the past 90 days. Yes X No

Indicate the number of shares outstanding of each of the  
issuer's classes of common stock, as of the close of the latest  
practical date.

Class	Outstanding at November 17, 1997
Common Stock, \$.001 Par Value	11,612,787
	(excluding 920,000 shares held as treasury stock)

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
CONSOLIDATED FINANCIAL STATEMENTS

PART I, ITEM 1

The consolidated financial statements included herein have been prepared by the Company, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and note disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations, although the Company believes the disclosures which are made are adequate to make the information presented not misleading. Further, the consolidated financial statements reflect, in the opinion of management, all adjustments (which include only normal recurring adjustments) necessary to present fairly the financial position and results of operations as of and for the periods indicated.

It is suggested that these consolidated financial statements be read in conjunction with the consolidated financial statements and the notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 1996, as amended by Form 10-K/A filed on October 16, 1997.

The results of operations for the nine months ended September 30, 1997 are not necessarily indicative of results to be expected for the fiscal year ending December 31, 1997.

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<TABLE>  
<CAPTION>  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
CONSOLIDATED BALANCE SHEETS

(Amounts in Thousands, Except for Share Amounts)	September 30, 1997 (Unaudited)	December 31, 1996
<S>	<C>	<C>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 110	\$ 45
Restricted cash equivalents and investments	532	448
Accounts receivable, net of allowance for doubtful accounts of \$342 and \$383, respectively	5,063	5,549
Inventories	81	107

Prepaid expenses	837	549
Other receivables	388	545
	<hr/>	<hr/>
Total current assets	7,011	7,243
Property and equipment:		
Buildings and land	5,648	4,894
Equipment	7,953	6,429
Vehicles	1,240	1,421
Leasehold improvements	13	289
Office furniture and equipment	1,149	1,136
Construction in progress	2,117	3,028
	<hr/>	<hr/>
	18,120	17,197
Less accumulated depreciation	(5,707)	(4,593)
	<hr/>	<hr/>
Net property and equipment	12,413	12,604
Intangibles and other assets:		
Permits, net of accumulated amortization of \$771 and \$598, respectively	3,811	3,949
Goodwill, net of accumulated amortization of \$544 and \$435, respectively	4,737	4,846
Covenant not to compete, net of accumulated amortization of \$391 and \$383, respectively	-	9
Other assets	401	385
	<hr/>	<hr/>
Total assets	\$ 28,373	\$ 29,036
	=====	=====

</TABLE>

The accompanying notes are an integral part of these consolidated financial statements.

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<TABLE>

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
CONSOLIDATED BALANCE SHEETS, CONTINUED

(Amounts in Thousands, Except for Share Amounts)	September 30, 1997 (Unaudited)	December 31, 1996
<S>	<C>	<C>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 2,739	\$ 3,677
Accrued expenses	2,839	2,860
Revolving loan and term note facility (see Note 2)	3,166	500
Equipment financing agreement	631	646
Current portion of long-term debt	354	333
	<hr/>	<hr/>
Total current liabilities	9,729	8,016
Long-term debt, less current portion (see Note 2)	750	4,881
Environmental accruals	1,878	2,460
Accrued closure costs	1,133	1,094
	<hr/>	<hr/>
Total long-term liabilities	3,761	8,435
Commitments and contingencies (see Note 3)	-	-
Stockholders' equity:		
Preferred stock, \$.001 par value; 2,000,000 shares authorized, 6,850 and 5,500 shares issued and outstanding, respectively	-	-
Common stock, \$.001 par value; 50,000,000 shares authorized, 12,383,405 and 10,399,947 shares issued, respectively, including 920,000 shares held as treasury stock	12	10
Redeemable warrants	140	140

Additional paid-in capital	32,255	28,495
Accumulated deficit	(15,754)	(14,290)
	<u>16,653</u>	<u>14,355</u>
Less common stock in treasury at cost; 920,000 shares issued and outstanding	(1,770)	(1,770)
Total stockholders' equity	<u>14,883</u>	<u>12,585</u>
Total liabilities and stockholders' equity	\$ 28,373	\$ 29,036
	=====	=====

</TABLE>

The accompanying notes are an integral part of these consolidated financial statements.

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<TABLE>

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
CONSOLIDATED STATEMENTS OF OPERATIONS  
(Unaudited)

(Amounts in Thousands, Except for Share Amounts)	Three Months Ended September 30,	
	1997	1996
<S>	<C>	<C>
Net revenues	\$ 7,246	\$ 7,734
Cost of goods sold	<u>5,066</u>	<u>5,195</u>
Gross profit	2,180	2,539
Selling, general and administrative expenses	1,472	1,751
Depreciation and amortization	528	515
Income (loss) from operations	180	273
Other income (expense):		
Interest income	14	13
Interest expense	(145)	(163)
Other	108	32
Net income (loss)	<u>\$ 157</u>	<u>\$ 155</u>
Preferred stock dividends	99	64
Net income (loss) applicable to Common Stock	<u>\$ 58</u>	<u>\$ 91</u>
	=====	=====
Net income (loss) per share	\$ .01	\$ .01
	=====	=====
Weighted average number of common shares outstanding	<u>11,090</u>	<u>9,306</u>
	=====	=====

</TABLE>

The accompanying notes are an integral part of these consolidated financial statements.

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
CONSOLIDATED STATEMENTS OF OPERATIONS  
(Unaudited)

(Amounts in Thousands, Except for Share Amounts)	Nine Months Ended September 30,	
	1997	1996
<S>	<C>	<C>

Net revenues	\$ 20,882	\$ 23,484
Cost of goods sold	15,410	16,593
	<hr/>	<hr/>
Gross profit	5,472	6,891
Selling, general and administrative expenses	4,649	5,175
Depreciation and amortization	1,605	1,692
Income (loss) from operations	(782)	24
Other income (expense):		
Interest income	38	53
Interest expense	(517)	(641)
Other	59	320
	<hr/>	<hr/>
Net income (loss)	\$ (1,202)	\$ (244)
Preferred stock dividends	262	74
	<hr/>	<hr/>
Net income (loss) applicable to common stock	\$ (1,464)	\$ (318)
	=====	=====
Net income (loss) per share	\$ (.14)	\$ (.04)
	=====	=====
Weighted average number of common shares outstanding	10,340	8,552
	=====	=====

</TABLE>

The accompanying notes are an integral part of these consolidated financial statements.

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<TABLE>

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(Unaudited)

Nine Months Ended  
September 30,

(Amounts in Thousands)	1997	1996
<S>	<C>	<C>
Cash flows from operating activities:		
Net loss applicable to common stock	\$ (1,464)	\$ (318)
Adjustments to reconcile net loss applicable to common stock to cash used in operations:		
Depreciation and amortization	1,605	1,692
Provision for bad debt and other reserves	52	14
Loss (Gain) on sale of plant, property and equipment	4	(37)
Changes in assets and liabilities:		
Accounts receivable	435	(356)
Prepaid expenses, inventories and other assets	607	(299)
Accounts payable and accrued expenses	(1,858)	(1,763)
	<hr/>	<hr/>
Net cash used in operations	(619)	(1,067)
Cash flows from investing activities:		
Purchases of property and equipment, net	(899)	(1,417)
Proceeds from disposition of property and equipment	52	1,211
Change in restricted cash, net	(102)	(72)
	<hr/>	<hr/>
Net cash used in investing activities	(949)	(278)

Cash flows from financing activities:		
Repayments of revolving loan and term note facility	(1,096)	(2,315)
Principal repayments on long-term debt	(651)	(1,227)
Proceeds from issuance of stock	3,380	6,538
Purchase of treasury stock	-	(1,769)
	<hr/>	<hr/>
Net cash provided by financing activities	1,633	1,227
Increase (Decrease) in cash and cash equivalents		
	65	(118)
Cash and cash equivalents at beginning of period	45	201
	<hr/>	<hr/>
Cash and cash equivalents at end of period	\$ 110	\$ 83
	=====	=====

Supplemental disclosure:		
Interest paid	\$ 530	\$ 684
	=====	=====
Income taxes paid	\$ -	\$ -
	=====	=====

Non cash investing and financing activities:		
Insurance financing	\$ 746	\$ 832
Issuance of stock for payment of dividends	314	-
Long-term debt incurred for purchase of property and equipment	287	70
Issuance of stock for services	68	69

</TABLE>

The accompanying notes are an integral part of these consolidated financial statements.

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<TABLE>

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY  
(For the nine months ended September 30, 1997)

Amounts in Thousands, Except for Share Amounts	Preferred Stock		Common Stock	
	Shares	Amount	Shares	Amount
<S>	<C>	<C>	<C>	<C>
Balance at December 31, 1996	5,500	\$ -	10,399,947	\$ 10
	=====	=====	=====	=====
Net Loss	-	-	-	-
Issuance of common stock for preferred stock dividend	-	-	-	-
Preferred stock dividend	-	-	178,781	-
Issuance of stock for cash and services	-	-	122,889	-
Exercise of warrants	-	-	642,814	1
Conversion of Series 3 preferred stock to common stock	(1,500)	-	1,027,974	1
Option Exercise	-	-	11,000	-
Issuance of preferred stock for cash	2,850	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
	6,850	\$ -	12,383,405	\$ 12
	=====	=====	=====	=====

Redeemable Warrants	Additional Paid-In Capital	Accumulated Deficit	Common Stock
			Held in Treasury
<S>	<S>	<S>	<S>

\$ 140	\$ 28,495	\$ (14,290)	\$ (1,770)	
=====	=====	=====	=====	
-	-	(1,202)	-	
				(262)
-	-	(262)	-	
-	314	-	-	
-	88	-	-	
-	832	-	-	
-	(1)	-	-	
-	11	-	-	
-	2,516	-	-	
-----	-----	-----	-----	
\$ 140	\$ 32,255	\$ (15,754)	\$ (1,770)	
=====	=====	=====	=====	

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
September 30, 1997  
(Unaudited)

Reference is made herein to the notes to consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 1996, as amended by Form 10-K/A filed on October 16, 1997.

1. Summary of Significant Accounting Policies

The Company's accounting policies are as set forth in the notes to consolidated financial statements referred to above.

Certain amounts in prior years' consolidated financial statements have been reclassified to conform to current period financial statement presentations.

Earnings (loss) per common share is computed by dividing net income, after deducting the preferred stock dividends, by the weighted average number of common shares outstanding during each period. Primary and fully diluted earnings per share were not presented since the effects of common stock equivalents and other dilutive securities on earnings per share are either antidilutive or are not material.

In February 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 128 "Earnings Per Share" ("SFAS 128"). SFAS 128 establishes new standards for computing and presenting earnings per share ("EPS"). Specifically, SFAS 128 replaces the presentation of primary EPS with a presentation of basic EPS, requires dual presentation of basic and diluted EPS on the face of the income statement for all entities with complex capital structures and requires a reconciliation of the numerator and denominator of the basic EPS computation to the numerator and denominator of the diluted EPS computation. SFAS 128 is effective for financial statements issued for periods ending after December 15, 1997, earlier application is not permitted. EPS for the three and nine months ended September 30, 1997 and 1996 computed under SFAS 128 would not be materially different than previously computed.

In June 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income," ("FAS 130") and No. 131, "Disclosure about Segments of an Enterprise and Related Information," ("FAS 131"). FAS 130 establishes standards for reporting and displaying comprehensive income, its components and accumulated balances. FAS 131 establishes standards for the way that public companies report information about operating segments in annual financial statements and requires reporting of selected information about operating segments in interim financial statements issued to the public. Both FAS 130 and FAS 131 are effective for periods beginning after December 15, 1997. The Company has not determined the impact that the adoption of these new accounting standards will have on its future financial statements and disclosures.

2. Long-Term Debt

Long-term debt consists of the following at September 30, 1997 and December 31, 1996 (in thousands):

	September 30, 1997	December 31, 1996
Long-term debt and notes payable:		
Revolving loan and term note facility	\$ 3,166	\$ 4,262
Equipment financing agreement	796	1,257
Various mortgage, promissory and notes payable	939	841
	<u>4,901</u>	<u>6,360</u>
Less current portion:		
Revolving loan and term note facility	3,166	500
Equipment financing agreement	631	646
Various mortgage, promissory and notes payable	354	333
	<u>4,151</u>	<u>1,479</u>
Long-term debt, less current portion	\$ 750	\$ 4,881
	=====	=====

On January 27, 1995, the Company, as parent and guarantor, and all direct and indirect subsidiaries of the Company, as co-borrowers and cross-guarantors, entered into a Loan and Security Agreement ("Heller Agreement") with Heller Financial, Inc. ("Heller"). The Heller Agreement provides for a term loan in the amount of \$2,500,000, which requires principal repayments based on a five-year level principal amortization over a term of 36 months, with monthly principal payments of \$42,000. Payments commenced on February 28, 1995, with a final balloon payment in the amount of \$826,000 due on January 31, 1998. The Heller Agreement also provides for a revolving loan facility in the amount of \$7,000,000. At any point in time the aggregate available borrowings under the facility are reduced by any amounts outstanding under the term loan and are also subject to the maximum credit availability as determined through a monthly borrowing base calculation, equal to 80% of eligible accounts receivable accounts of the Company as defined in the Heller Agreement. The termination date on the revolving loan facility is also January 31, 1998.

As noted above, the Heller Agreement has a scheduled termination date of January 31, 1998. The Company is currently negotiating with Heller for the renewal of the Heller Agreement and has received proposals from two other potential lenders to replace Heller, one of which has provided a commitment, although no assurance can be given that such a renewal or new credit facility will be obtained. Since this scheduled termination date is less than twelve months from September 30, 1997, the Company has reclassified as a current liability \$2,666,000 outstanding under the Heller Agreement, consistent with Generally Accepted Accounting Principles, that would otherwise be classified as long-term debt. As of September 30, 1997, the Company was in default of, among other things, the "Minimum EBITDA", "Capital Expenditure Limit" and "Fixed Charge Coverage" financial covenants of the Heller Agreement. The financial covenant defaults were principally a result of the facility disruption and resulting net loss incurred by the Perma-Fix of Memphis, Inc. ("PFM") facility due to an explosion and fire in January 1997 (see Note 5) and additional capital spending in conjunction with the equity raised during 1997. The Company is currently negotiating with Heller for a waiver of these defaults.

Pursuant to the Sixth Amendment to the Heller Agreement, the Company was obligated to raise an additional \$700,000 on or before August 15, 1997, of which \$150,000 was to be received by June 15, 1997. During the second quarter of 1997 and July, 1997, the Company fully satisfied this covenant obligation, having raised approximately \$3,632,000 principally through insurance proceeds with regard to the vandalism at the Perma-Fix of Ft. Lauderdale, Inc. ("PFL") facility in 1996 and from the issuance of the 2,500 shares of newly-created Series 4 Class D Convertible Preferred Stock, and 350 shares of newly-created Series 5 Class E Convertible Preferred Stock, as further discussed in Note 4.



Pursuant to the initial Heller Agreement, the term loan bears interest at a floating rate equal to the base rate (prime) plus 1

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3/4% per annum. The revolving loan bears interest at a floating rate equal to the base rate (prime) plus 1 1/2% per annum. The loans also contain certain closing, management and unused line fees payable throughout the term. In conjunction with the Third and Sixth Amendments, applicable interest rates were amended, whereby the term loan was increased to the base rate plus 2 1/4% and the revolving loan was increased to the base rate plus 2%. Both the revolving loan and term loan were prime based loans at September 30, 1997, bearing interest at a rate of 10.50% and 10.75%, respectively.

As of September 30, 1997, the borrowings under the revolving loan facility total \$2,173,000, a decrease of \$706,000 from the December 31, 1996 balance of \$2,879,000, with additional borrowing availability of \$1,271,000. The balance on the term loan totaled \$993,000, as compared to \$1,383,000 at December 31, 1996. Total indebtedness under the Heller Agreement as of September 30, 1997 was \$3,166,000, a decrease of \$1,096,000 from the December 31, 1996 balance of \$4,262,000.

During October 1994, the Company entered into a \$1,000,000 equipment financing agreement ("Ally Agreement") with Ally Capital Corporation ("Ally"). During 1995, the Company negotiated an increase in the total lease line and subsequently utilized \$1,553,000 of this credit facility to purchase new capital equipment. The Ally Agreement provides for an initial term of 42 months, which may be extended to 48, and bears interest at a fixed interest rate of 11.3%. In conjunction with a 1994 acquisition, the Company also assumed \$679,000 of debt obligations with Ally Capital Corporation, which had terms expiring from September 1997 through August 1998, at a rate ranging from 10.2% to 13.05%. The outstanding balance on the Ally Agreement at September 30, 1997 is \$796,000, as compared to \$1,257,000 at December 31, 1996. As of September 30, 1997, the Company was in default of the "Minimum EBITDA", "Capital Expenditure Limit" and "Fixed Charge Coverage" financial covenants of the Ally Agreement. This default was principally a result of the facility disruption and resulting net loss incurred by the Perma-Fix of Memphis, Inc. ("PFM") facility due to an explosion and fire in January 1997 (see Note 5) and the additional capital spending in conjunction with the equity raised during 1997. The Company is currently negotiating with Ally for a waiver of this default and has received proposals from two other potential lenders to replace Ally. Based upon the Company's discussions with Ally, the nature and reason for said default and the significant collateral position securing the Ally Agreement, the Company has chosen not to reclassify the long-term balance of \$165,000 at September 30, 1997 as a current liability.

### 3. Commitments and Contingencies

#### Hazardous Waste

In connection with the Company's waste management services, the Company handles both hazardous and non-hazardous waste which it transports to its own or other facilities for destruction or disposal. As a result of disposing of hazardous substances, in the event any cleanup is required, the Company could be a potentially responsible party for the costs of the cleanup notwithstanding any absence of fault on the part of the Company.

#### Legal

During September 1994, Perma-Fix of Memphis, Inc. ("PFM"), formerly American Resource Recovery Corporation ("ARR") and a subsidiary of the Company, was sued by Community First Bank ("Community First") to collect a note in the principal sum of \$341,000 that was allegedly made by ARR to CTC Industrial Services, Inc. ("CTC") in February 1987 (the "Note"), and which was allegedly pledged by CTC to Community First in December 1988 to secure certain loans to CTC. This lawsuit styled Community First Bank v. American Resource Recovery Corporation, was instituted on September 14, 1994, and is pending in the Circuit Court, Shelby County, Tennessee. The Company was not aware of either the Note or its pledge to Community First at the time of the Company's acquisition of PFM in December 1993. The Company vigorously defended itself in connection therewith and filed a third party

complaint against Billie Kay Dowdy, who was the sole shareholder of PFM immediately prior to the acquisition of PFM by the Company, alleging that Ms. Dowdy was required to defend and indemnify the Company and PFM from and against this action under the terms of the agreement relating to the Company's acquisition of PFM. This matter was settled on August 29, 1997. PFM and Dowdy each agreed

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to pay the plaintiff \$45,000 in exchange for a full and complete release and a dismissal of the above matter.

In May 1995, PFM, a subsidiary of the Company, became aware that the U.S. District Attorney for the Western District of Tennessee and the Department of Justice were investigating certain prior activities of W.R. Drum Company, its successor, First Southern Container Company, and any other facility owned or operated in whole or in part by Johnnie Williams. PFM used W.R. Drum Company to dispose of certain of its used drums. In May 1995, PFM received a Grand Jury Subpoena which demanded the production of any documents in the possession of PFM pertaining to W.R. Drum Company, First Southern Container Company, or any other facility owned or operated, and holder in part, by Johnnie Williams. PFM complied with the Grand Jury Subpoena. Thereafter, in September of 1995, PFM received another Grand Jury Subpoena for documents from the Grand Jury investigating W.R. Drum Company, First Southern Container Company, and/or Johnnie Williams. PFM complied with the Grand Jury Subpoena. In December 1995, representative of the Department of Justice advised PFM that it was also currently a subject of the investigation involving W.R. Drum Company, First Southern Container Company, and/or Johnnie Williams. Since that time, however, PFM has had no contact with representatives of either the United States District Attorney's office for the Western District of Tennessee or the Department of Justice, and is not aware of why it is also a subject of such investigation. On October 31, 1997, the United States Environmental Protection Agency ("EPA") has requested information from PFM regarding business conducted with W. R. Drum Company. PFM intends to comply with the EPA's request for information, and is not aware of any concerns that the EPA has with PFM in this matter. In accordance with certain provisions of the Agreement and Plan of Merger relating to the prior acquisition of PFM, on or about January 2, 1996, PFM notified Ms. Billie K. Dowdy of the foregoing, and advised Ms. Dowdy that the Company and PFM would look to Ms. Dowdy to indemnify, defend and hold the Company and PFM harmless from any liability, loss, damage or expense incurred or suffered as a result of, or in connection with, this matter.

On January 27, 1997, an explosion and resulting tank fire occurred at PFM's facility in Memphis, Tennessee, a hazardous waste storage, processing and blending facility. See Note 5 "Facility Disruption". As a result of the fire and explosion, the Tennessee Department of Environment and Conservation ("TDEC") issued an order dated April 23, 1997 ("TDEC Order") which alleges that the facility violated certain hazardous waste rules and regulations promulgated by the TDEC and ordered that the facility, among other things, cease blending operations, the facility's permit to construct a new hazardous waste tank storage area, which has not yet been constructed, is to be revoked, and implement certain actions and assessed a penalty of approximately \$144,000. PFM has responded to such order and asserted that the TDEC issued the order against the wrong party, that PFM did not violate any rules and regulations promulgated by the TDEC, the actions taken by the TDEC were contrary to applicable rules and regulations and the TDEC is not entitled to such penalties. The Company intends for PFM to vigorously defend itself in connection with this matter.

In addition to the above matters and in the normal course of conducting its business, the Company is involved in various other litigation. The Company is not a party to any litigation or governmental proceeding which its management believes could result in any judgments or fines against it that would have a material adverse affect on the Company's financial position, liquidity or results of operations.

#### Permits

The Company is subject to various regulatory requirements, including the procurement of requisite licenses and permits at certain of its facilities. These licenses and permits are subject to periodic renewal without which the Company's operations would be

adversely affected. The Company anticipates that, once a license or permit is issued with respect to a facility, the license or permit will be renewed at the end of its term if the facility's operations are in compliance with the applicable regulatory requirements.

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#### Accrued Closure Costs and Environmental Liabilities

The Company maintains closure cost funds to insure the proper decommissioning of its RCRA facilities upon cessation of operations. Additionally, in the course of owning and operating on-site treatment, storage and disposal facilities, the Company is subject to corrective action proceedings to restore soil and/or groundwater to its original state. These activities are governed by federal, state and local regulations and the Company maintains the appropriate accruals for restoration. The Company has recorded accrued liabilities for estimated closure costs and identified environmental remediation costs.

#### Insurance

The business of the Company exposes it to various risks, including claims for causing damage to property or injuries to persons or claims alleging negligence or professional errors or omissions in the performance of its services, which claims could be substantial. The Company carries general liability insurance which provides coverage in the aggregate amount of \$2 million and an additional \$6 million excess umbrella policy and carries \$1 million per occurrence and \$2 million annual aggregate of errors and omissions/professional liability insurance coverage, which includes pollution control coverage.

The Company also carries specific pollution liability insurance for operations involved in the Waste Management Services segment. The Company believes that this coverage, combined with its various other insurance policies, is adequate to insure the Company against the various types of risks encountered.

#### 4. Stock Issuance

In June, 1997, the Company sold to RBB Bank Aktiengesellschaft ("RBB Bank") in a private placement under Rule 506 of Regulation D under the Securities Act of 1933, as amended, 2,500 shares of a new series of Preferred Stock ("Series 4 Preferred") pursuant to the terms of a Subscription and Purchase Agreement, dated June 9, 1997, between the Company and RBB Bank ("Subscription Agreement"), for a total of \$2.5 million, less commissions of \$200,000. The Series 4 Preferred has a liquidation preference over the Company's common stock, par value \$.001 per share ("Common Stock"), equal to \$1,000 consideration per outstanding share of Series 4 Preferred (the "Liquidation Value"), plus an amount equal to all unpaid dividends accrued thereon. The Series 4 Preferred accrues dividends on a cumulative basis at a rate of four percent (4%) per annum of the Liquidation Value ("Dividend Rate"), and is payable semi-annually when and as declared by the Board of Directors. No dividends or other distributions may be paid or declared or set aside for payment on the Company's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 4 Preferred have been paid or set aside for payment. Dividends may be paid, at the option of the Company, in the form of cash or Common Stock of the Company. If the Company pays dividends in Common Stock, such is payable in the number of shares of Common Stock equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Common Stock as reported on the NASDAQ for the five trading days immediate prior to the date the dividend is declared, times (b) a fraction, the numerator of which is the number of days elapsed during the period for which the dividend is to be paid and the denominator of which is 365.

The holder of the Series 4 Preferred may convert into Common Stock up to 1,250 shares of the Series 4 Preferred on and after October 5, 1997, and the remaining 1,250 shares of the Series 4 Preferred on and after November 5, 1997. The conversion price per share is the lesser of (a) the product of the average closing bid quotation for the five (5) trading days immediately preceding the conversion date multiplied by eighty percent (80%) or (b) \$1.6875. The minimum conversion price is \$.75, which minimum will be

eliminated from and after September 6, 1998. The Company will have the option to redeem the shares of Series 4 Preferred (a) between June 11, 1998, and June 11, 2001, at a redemption price of \$1,300 per share if at any time the average closing bid price of the Common Stock for ten consecutive trading days is in excess of \$4.00, and (b) after June 11, 2001, at a redemption price of \$1,000 per share. The holder of the Series 4 Preferred will have the option to convert the Series 4 Preferred prior to redemption by the Company.

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As part of the sale of the Series 4 Preferred, the Company also issued to RBB Bank two Common Stock purchase warrants (collectively, the "Warrants ") entitling RBB Bank to purchase, after December 31, 1997 and until June 9, 2000, an aggregate of up to 375,000 shares of Common Stock, subject to certain anti-dilution provisions, with 187,500 shares exercisable at a price equal to \$2.10 per share and 187,500 shares exercisable at a price equal to \$2.50 per share. A certain number of shares of Common Stock issuable on the conversion of the Series 4 Preferred and on the exercise of the Warrants are subject to certain registration rights pursuant to the Subscription Agreement.

Effective as of September 16, 1997, the Company entered into an Exchange Agreement with RBB Bank ("RBB Exchange Agreement") which provided that the 2,500 shares of Series 4 Preferred and the RBB Series 4 Warrants were tendered to the Company in exchange for (i) 2,500 shares of a newly created Series 6 Class F Convertible Preferred Stock, par value \$.001 per share ("Series 6 Preferred"), (ii) two warrants each to purchase 187,500 shares of Common Stock exercisable at \$1.8125 per share, and (iii) one warrant to purchase 281,250 shares of Common Stock exercisable at \$2.125 per share (collectively, the "RBB Series 6 Warrants"). The RBB Series 6 Warrants are for a term of three (3) years and may be exercised at any time after December 31, 1997, and until June 9, 2000. The Company received no proceeds as a result of the RBB Exchange Agreement.

The conversion price of the Series 6 Preferred shall be \$1.8125 per share, unless the closing bid quotation of the Common Stock is lower than \$2.50 in twenty (20) out of any thirty (30) consecutive trading days after March 1, 1998, in which case, the conversion price per share shall be the lesser of (A) the product of the average closing bid quotation for the five (5) trading days immediately preceding the conversion date multiplied by eighty percent (80%) or (B) \$1.8125 with the minimum conversion price being \$.75, which minimum will be eliminated from and after September 6, 1998. The remaining terms of the Series 6 Preferred are substantially the same as the terms of the Series 4 Preferred. The exchange being completed as of the date of this report.

On or about July 14, 1997, the Company issued to the Infinity Fund, L.P. ("Infinity"), 350 shares of newly-created Series 5 Class E Convertible Preferred Stock, par value \$.001 per share ("Series 5 Preferred"), at a price of \$1,000 per share, for an aggregate sales price of \$350,000. The sale to Infinity was made in a private placement under Rule 506 of Regulation D under the Securities Acts of 1933, as amended, pursuant to the terms of a Subscription and Purchase Agreement, dated July 7, 1997, between the Company and Infinity ("Infinity Subscription Agreement"). The Company utilized the proceeds received on the sale of Series 5 Preferred for the payment of debt and general working capital.

The Series 5 Preferred has a liquidation preference over the Company's Common Stock, par value \$.001 per share ("Common Stock"), equal to \$1,000 consideration per outstanding share of Series 5 Preferred (the "Liquidation Value"), plus an amount equal to all unpaid dividends accrued thereon. The Series 5 Preferred accrues dividends on a cumulative basis at a rate of four percent (4%) per annum of the Liquidation Value ("Dividend Rate"). Dividends are payable semi-annually when and as declared by the Board of Directors. No dividends or other distributions may be paid or declared or set aside for payment on the Company's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 5 Preferred have been paid or set aside for payment. Dividends may be paid, at the option of the Company, in the form of cash or Common Stock of the Company. If the Company pays dividends in Common Stock, such is payable in the number of shares of Common

Stock equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Common Stock as reported on the NASDAQ for the five trading days immediately prior to the date the dividend is declared, multiplied by (b) a fraction, the numerator of which is the number of days elapsed during the period for which the dividend is to be paid and the denominator of which is 365.

The holder of the Series 5 Preferred may convert into Common Stock up to 175 shares of the Series 5 Preferred on and after November 3, 1997, and the remaining 175 shares of the Series 5 Preferred on and after December 3, 1997. The conversion price per share is the lesser of (a) the product of the average closing bid

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quotation for the five trading days immediately preceding the conversion date multiplied by 80% or (b) \$1.6875. The minimum conversion price is \$.75, which minimum will be eliminated from and after September 6, 1998. The Company will have the option to redeem the shares of Series 5 Preferred (a) between July 14, 1998, and July 13, 2001, at a redemption price of \$1,300 per share if at any time the average closing bid price of the Common Stock for ten consecutive trading days is in excess of \$4.00, and (b) after July 13, 2001, at a redemption price of \$1,000 per share. The holder of the Series 5 Preferred will have the option to convert the Series 5 Preferred prior to redemption by the Company. A certain number of shares of Common Stock issuable upon conversion of the Series 5 Preferred are subject to certain registration rights pursuant to the Infinity Subscription Agreement.

Effective as of September 16, 1997, the Company entered into an Exchange Agreement with Infinity ("Infinity Fund Exchange Agreement") which provided that the 350 shares of Series 5 Preferred were tendered to the Company in exchange for (i) 350 shares of a newly created Series 7 Class G Preferred Stock, par value \$.001 per share ("Series 7 Preferred"), and (ii) one Warrant to purchase up to 35,000 shares of Common Stock exercisable at \$1.8125 per share ("Series 7 Warrant"). The Series 7 Warrant is for a term of three (3) years and may be exercised at any time after December 31, 1997, and until July 7, 2000. The Company received no proceeds as a result of the Infinity Fund Exchange Agreement.

The conversion price of the Series 7 Preferred shall be \$1.8125 per share, unless the closing bid quotation of the Common Stock is lower than \$2.50 per share in twenty (20) out of any thirty (30) consecutive trading days after March 1, 1998, in which case, the conversion price per share shall be the lesser of (i) the product of the average closing bid quotation for the five (5) trading days immediately preceding the conversion date multiplied by eighty percent (80%) or (ii) \$1.8125, with the minimum conversion price being \$.75, which minimum will be eliminated from and after September 6, 1998. The remaining terms of the Series 7 Preferred are substantially the same as the terms of the Series 5 Preferred.

On June 30, 1997, the Company entered into a Stock Purchase Agreement ("Centofanti Agreement") with Dr. Louis F. Centofanti, under which the Company agreed to sell, and Dr. Centofanti agreed to purchase 24,381 shares of the Company's Common Stock. The purchase price was \$1.6406 per share representing 75% of the \$2.1875 closing bid price of the Common Stock as quoted on the NASDAQ on the date that Dr. Centofanti notified the Company of his desire to purchase such shares. Pursuant to the terms of the Centofanti Agreement, Dr. Centofanti was to pay the Company the aggregate purchase price of \$40,000 for the 24,381 shares of Common Stock. Dr. Centofanti purchased 12,190 shares during July for \$20,000. The Centofanti Agreement was amended during October, 1997, to reduce the number of shares of Common Stock that Dr. Centofanti was to acquire under the Centofanti Agreement to the 12,190 shares already acquired by Dr. Centofanti under the Centofanti Agreement, upon consideration of the certain recent accounting pronouncements related to stock based compensation. The sale of the shares pursuant to the Centofanti Agreement and its subsequent amendment dated October 7, 1997, for the sale of 12,190 shares were authorized by the Company's Board of Directors.

On July 30, 1997, the Company entered into a Stock Purchase Agreement ("Gorlin Agreement") with Mr. Steve Gorlin, a Director of

the Company, whereby the Company agreed to sell and, and Mr. Gorlin agreed to purchase, 200,000 shares of the Company's Common Stock.

The purchase price was \$2.125 per share representing the closing bid price of the Common Stock as quoted on the NASDAQ on July 30, 1997. Pursuant to the terms of the Gorlin Agreement, Mr. Gorlin agreed to pay the Company the aggregate purchase price of \$425,000 for the 200,000 shares of Common Stock. In order to induce Mr. Gorlin to enter into the amendment to the Gorlin Agreement, and to purchase the Common Stock on the terms and subject to the conditions thereof, PESI agreed to issue a three (3) year Warrant to Mr. Gorlin for the purchase of 100,000 shares of Common Stock at \$2.40 per share. Under the Gorlin Agreement, Mr. Gorlin agreed to tender \$425,000 during August, 1997, however, pursuant to an amendment to the Gorlin Agreement, which was entered into on October 7, 1997, the payment schedule was modified such that Mr. Gorlin agreed to tender the \$425,000 on or before November 30, 1997.

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In consideration of certain investment banking services as performed for the Company, a warrant was issued to J.W. Charles Financial Services, Inc. ("Charles") during September 1996. This warrant was subsequently assigned by Charles to certain partners, officers or broker and, during July 1997, one of the assigned warrants was exercised which resulted in the issuance of 155,000 shares of the Company's Common Stock and raised \$232,000 in equity or capital for the Company.

During the nine months ended September 30, 1997, a total of 1,500 shares of the RBB Bank Series 3 Preferred were converted into 1,027,974 shares of the Company's Common Stock and the associated accrued dividends on the Series 3 Preferred were paid in the form of 12,058 shares of the Company's Common Stock.

On September 24, 1997, Dionysus Limited, an Isle of Man corporation ("Dionysus"), exercised 75,000 warrants to purchase the Company's Common Stock at a purchase price of \$1.50 per share or an aggregate of \$112,500. One certificate representing an aggregate of 75,000 shares of Common Stock was issued on October 20, 1997 pursuant to such warrants.

##### 5. Facility Disruption

On January 27, 1997, an explosion and resulting tank fire occurred at the Perma-Fix of Memphis, Inc. ("PFM") facility, a hazardous waste storage, processing and blending facility, located in Memphis, Tennessee, which resulted in damage to certain hazardous waste storage tanks located on the facility and caused certain limited contamination at the facility. Such occurrence was caused by welding activity performed by employees of an independent contractor at or near the facility's hazardous waste tank farm contrary to instructions by PFM. The facility was non-operational from the date of this event until May, 1997, at which time it began limited operations. However, PFM has accepted and will continue to accept waste for processing and disposal, but has arranged for other facilities owned by the Company or subsidiaries of the Company or others not affiliated with the Company to process such waste. The utilization of other facilities to process such waste results in higher costs to PFM than if PFM were able to store and process such waste at its Memphis, Tennessee, TSD facility, along with the additional handling and transportation costs associated with these activities. PFM is in the process of repairing and/or removing the damaged storage tanks and any contamination resulting from the occurrence. The extent of PFM's activities at the facility is presently being evaluated by the Company. See Note 3 for a discussion of certain proceedings pending against PFM as a result of such fire and explosion.

Net revenues for PFM total \$1,514,000 for the nine month period ended September 30, 1997, reflecting a decrease of \$1,386,000 from the nine month period ended September 30, 1996 total of \$2,900,000. During this same period, the net loss for PFM totaled \$1,417,000 for 1997, as compared to \$404,000 for 1996, an increased loss of \$1,013,000 for the nine month period. Net revenues for the quarter ended September 30, 1997 were \$325,000, a reduction of \$829,000 from the quarter ended September 30, 1996 total of \$1,154,000. Correspondingly, the net loss for the third quarter of 1997 totaled \$376,000, as compared to \$134,000 for the third quarter of 1996, resulting in an increased loss of \$242,000 for this three month period. The Company and PFM have property and business interruption insurance and have provided notice to its carriers of such loss. The Company has settled its property and contents claim for

\$522,000. The Company is in the process of negotiating with its insurance carrier regarding the amount of business interruption insurance that may be recoverable by PFM as a result thereof.

#### 6. Subsequent Event

Effective October 1, 1997, Dr. Centofanti entered into a three (3) year Employment Agreement with the Company which provided for, among other things, an annual salary of \$110,000 and the issuance of Non-Qualified Stock Options ("Non-Qualified Stock Options"). The Non-Qualified Stock Options provide Dr. Centofanti with the right to purchase an aggregate of 300,000 shares of Common Stock in the form of (i) after one year 100,000 shares of Common Stock at a price of \$2.25 per share, (ii) after two years 100,000 shares of Common Stock at a price of \$2.50 per share, and (iii) after three years 100,000 shares of Common Stock at a price of \$3.00 per share. The Non-Qualified Stock Options expire ten years after the date of the Employment Agreement.

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
MANAGEMENT'S DISCUSSION AND ANALYSIS OF  
FINANCIAL CONDITION AND RESULTS OF OPERATIONS  
PART I, ITEM 2

#### Forward-Looking Statements

Certain statements contained within this "Management's Discussion and Analysis of Financial Condition and Results of Operations" may be deemed "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (collectively, the "Private Securities Litigation Reform Act of 1995").

All statements in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" other than statements of historical fact are forward-looking statements that are subject to known and unknown risks, uncertainties and other factors which could cause actual result and performance of the Company to differ materially from such statements. The words "believe", "expect", "anticipate", "intend", "will", and similar expressions identify forward-looking statements. Forward-looking statements contained herein relate to anticipated financial performance, ability to comply with the Company's general working capital requirements, ability to recover under certain insurance policies, ability to reopen certain operations in Memphis, Tennessee, the ability to retain or receive certain permits, the successful resolution of certain actions instituted by the Tennessee Department of Environment and Conservation against the Memphis, Tennessee facility of the Company, the ability to be able to continue to borrow under the Company's revolving line of credit, the ability to become profitable, the ability to generate sufficient cash flow from operations to fund all costs of operations and remediation of the Company's leased property in Dayton, Ohio and PFM's facility in Memphis, Tennessee, the ability to remediate certain contaminated sites for projected amounts, and all other statements which are not statements of historical fact. While the Company believes the expectations reflected in such forward-looking statements are reasonable, it can give no assurance such expectations will prove to have been correct. There are a variety of factors which could cause future outcomes to differ materially from those described in this Form 10-Q, including, but not limited to, general economic conditions, material reduction in revenues, inability to collect in a timely manner a material amount of receivables, increased competitive pressures, overcapacity in the environmental industry, ability to receive or retain certain required permits to satisfactorily resolve certain pending orders or issues or to reopen a certain facility or to move such facility to another location, discovery of additional contamination or expanded contamination at the Dayton, Ohio property or the PFM facility at Memphis, Tennessee which would result in a material increase in remediation expenditures, changes in federal, state and local laws and regulations, especially environmental regulations, or in interpretation of such, potential increases in equipment, maintenance, operating or labor costs, management retention and development, the requirement to use internally

generated funds for purposes not presently anticipated, the inability to obtain waivers regarding existing defaults under certain financial covenants contained in loan agreements that the Company is a party to, the insurance carrier determines that coverage is not available or is available in limited amounts or contest the amount of the claim, or the Company is not able to continue profitability or, if unable to continue profitability, is unable to secure additional liquidity in the form of additional equity or debt. The Company undertakes no obligation to update publicly any forward-looking statement, whether as a result of new information, future events or otherwise.

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#### Results of Operations

The table below should be used when reviewing management's discussion and analysis for the three and nine months ended September 30, 1997 and 1996:

Consolidated	Three Months Ended September 30,			
	1997	%	1996	%
Net Revenues	\$ 7,246	100.0	\$ 7,734	100.0
Cost of Goods Sold	5,066	69.9	5,195	67.2
Gross Profit	2,180	30.1	2,539	32.8
Selling, General and Administrative	1,472	20.3	1,751	22.6
Depreciation/Amortization	528	7.3	515	6.7
Income (Loss) from Operations	\$ 180	2.5	\$ 273	3.5
Interest Expense	145	2.0	163	2.1
Preferred Stock Dividends	\$ 99	1.4	\$ 64	0.8

Consolidated	Nine Months Ended September 30,			
	1997	%	1996	%
Net Revenues	\$20,882	100.0	\$23,484	100.0
Cost of Goods Sold	15,410	73.8	16,593	70.7
Gross Profit	5,472	26.2	6,891	29.3
Selling, General and Administrative	4,649	22.3	5,175	22.0
Depreciation/Amortization	1,605	7.7	1,692	7.2
Income (Loss) from Operations	\$ (782)	(3.8)	\$ 24	(0.1)
Interest Expense	517	2.5	641	2.7
Preferred Stock Dividends	\$ 262	1.3	\$ 74	0.3

#### Summary -- Three and Nine Months Ended September 30, 1997 and 1996

The Company provides services through two business segments. The Waste Management Services segment is engaged in on- and off-site treatment, storage, disposal and blending of a wide variety of industrial, hazardous, and mixed wastes and wastewaters. The Company developed and owns several priority on-site and off-site technologies for the treatment of nuclear mixed waste. This segment competes for materials and services with numerous regional and national competitors to provide comprehensive and cost-effective waste management services to a wide variety of customers nationwide. The Company's Consulting Engineering segment of the pollution control industry provides a wide variety of environmental related consulting and engineering services to industry and government. Through the Company's wholly-owned subsidiaries in



Tulsa, Oklahoma and St. Louis, Missouri, this segment provides oversight management of environmental restoration projects, air and soil sampling and compliance reporting, surface and subsurface water treatment design for removal of pollutants, and various compliance and training activities.

Consolidated net revenues decreased \$488,000, or 6.3% for the three months ended September 30, 1997 as compared to the three months ended September 30, 1996. This decrease is attributable to both the Consulting Engineering segment, which experienced a reduction in revenues of \$467,000, and a decrease of \$21,000 in revenues from the Waste Management segment. As reflected, the most significant decrease was within the Consulting Engineering segment and is partially a result of two one-time projects for 1996 which totaled \$396,000, not duplicated in 1997 and a significant reduction in the Bartlesville, Oklahoma three year project that reduced 1997 revenue by approximately \$71,000 as compared to 1996. Although the Waste Management segment experienced a decrease in revenues of \$21,000, the Memphis, Tennessee facility disruption accounted for a decrease of \$829,000 in the quarter ended September 30, 1997 as compared to the same period of 1996. Therefore, despite the disruption, revenues within the wastewater and mix-waste segments of the business increased approximately \$808,000 during the third quarter of 1997, as compared with the same period in 1996. Consolidated revenues for the nine months ended September 30, 1997 and 1996 decreased \$2,602,000, an 11.1% change. This decrease is primarily the result of the disruption at the Memphis, Tennessee, facility, which resulted in a reduction in revenue of \$1,386,000 for the nine months ended September 30, 1997 as compared to the same period ended September 30, 1996. As discussed above, the Company also experienced a reduction in revenue due to the Bartlesville, Oklahoma project nearing completion, reflecting a decrease of \$119,000, several engineering contracts not duplicated in 1997, which resulted in a reduction of \$580,000, and to the

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restructuring in the Perma-Fix, Inc. group as it transitions away from lower margin field service projects and continues to pursue new technologies and additional DOE contracts. During 1996, the Company also completed the sale of its PermaCool technology, which generated revenues of \$689,000 for the nine months ended September 30, 1996, which were not duplicated during 1997.

The cost of goods sold decreased 2.5% or \$129,000 for the quarter ended September 30, 1997, as compared to the quarter ended September 30, 1996. The decrease is primarily attributable to the reduced revenue during the third quarter of 1997, which, as discussed above, decreased 6.3%. However, as a percentage of revenue, cost of goods sold increased to 69.9% in the third quarter of 1997, compared to 67.2% in the corresponding third quarter of 1996. This consolidated increase in cost of goods sold as a percentage of revenue reflects principally the impact of reduced revenues, combined with the additional operating costs incurred at the PFM facility resulting from the above-discussed disruption and associated increased operating, disposal, and transportation costs as a result of such disruption. Cost of goods sold for PFM was approximately 77.3% for the third quarter of 1996, as compared to 134.5% for the third quarter of 1997. Consolidated cost of goods sold for the nine months ended September 30, 1997, as compared to the nine months ended September 30, 1996 decreased \$1,183,000 or 7.1%. However, cost of goods sold as a percentage of revenue increased for the nine month period of 1997, as compared to the same period of 1996 by 3.1% to 73.8%. This increase in cost of goods sold as a percentage of revenue is principally due to the reduced revenue and facility disruption, as discussed above, at the PFM facility. Cost of goods sold for PFM was approximately 76.7% for the nine months ended September 30, 1996, as compared to 126.8% for the corresponding nine months of 1997.

Selling, general and administrative expenses decreased 15.9% for the three months ended September 30, 1997 as compared to the corresponding three months ended 1996. As a percentage of revenue, selling, general and administrative expense also decreased to 20.3% for the quarter ended September 30, 1997, compared to 22.6% for the same period in 1996. The decrease of \$279,000 reflects a reduction in costs of \$50,000 in the Consulting Engineering segment and a \$194,000 reduction in the Waste Management segment with the balance being a reduction in corporate overhead. Consolidated selling, general and administrative expenses decreased \$526,000 or 10.2% for

the nine months ended September 30, 1997 as compared to the same period in 1996. As a percentage of revenue, selling, general and administrative expenses increased .3% for the nine months ended September 30, 1997 as compared to the same period in 1996. The Company's Waste Management segment decreased marketing expenses by \$334,000, while the Consulting Engineering segment decreased administrative expense by \$161,000 for the nine months ended September 30, 1997, as compared to the corresponding period in 1996.

Depreciation and amortization expense for the quarter ended September 30, 1997 reflects an increase of \$13,000 or .6% of revenue as compared to the quarter ended September 30, 1996 as a result of the purchase of new assets, capitalized during the third quarter of 1997. Amortization expense reflects a total decrease of \$20,000 from the quarter ended September 30, 1997 as compared to 1996, which is a direct result of the "Covenant Not to Compete" having become fully amortized during the first quarter of 1997. Consolidated depreciation and amortization expense for the nine months ended September 30, 1997 reflects a total decrease of \$87,000 from the nine months ended September 30, 1996. Amortization expense reflects a total decrease of \$50,000 for the nine months ended September 30, 1997 as compared to the same period of 1996, which is a direct result of the fully amortized covenant described above. Depreciation expense for this nine month period of 1997 reflects a reduction of \$37,000 in conjunction with the sale of certain assets as a result of the Company's previous restructuring programs and various other assets becoming fully depreciated.

Interest expense decreased \$18,000 from the quarter ended September 30, 1997 as compared to the corresponding period of 1996. The decrease in interest expense reflects the reduced borrowing levels on the Heller Financial, Inc. revolving loan and term note. Offsetting this reduced interest expense, during the third quarter of 1997, was the Preferred Stock dividend totaling \$99,000 incurred in conjunction with the Series 3 Class C, Series 4 Class D and Series 5 Class E Convertible Preferred Stock as issued in July 1996, June 1997, and July 1997, respectively. As a result of the

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issuance of the Series 4 Class D and Series 5 Class E Preferred Stock during 1997, dividends increased by \$35,000 for the third quarter of 1997 as compared to the same quarter of 1996. Interest expense for the nine months ended September 30, 1997 decreased \$124,000, as compared to the same period of 1996. This decrease also reflects the reduced borrowing levels on the Heller Financial, Inc. revolving loan and term note. Offsetting this reduced interest expense for the nine months ended September 30, 1997, was the Preferred Stock dividend totaling \$262,000 incurred in conjunction with the Series 3 Class C, Series 4 Class D and Series 5 Class E Convertible Preferred Stock as issued in July 1996, June 1997, and July 1997, respectively. The dividend expense for the nine months ended September 30, 1997 reflects an increase of \$188,000 as compared to the same period of 1996.

#### Facility Disruption

As previously discussed, on January 27, 1997, an explosion and resulting tank fire occurred at PFM's facility, a hazardous waste storage, processing and blending facility. See Note 5 "Facility Disruption" and "Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources" for further information and discussion of certain forward-looking statements contained herein and certain cautionary statements relating thereto.

As a result of the explosion and resulting tank fire at the PFM facility, TDEC issued the TDEC Order, which alleges that the facility violated certain hazardous waste rules and regulations promulgated by the TDEC. The TDEC Order assessed a penalty against PFM of approximately \$144,000 and ordered, among other things, that (a) the facility cease blending operations, (b) the facility's permit to construct a new hazardous waste tank storage area, which has not yet been constructed, be revoked, and (c) PFM implement certain other actions. PFM has responded to the TDEC Order and asserted that the TDEC Order was issued against the wrong party, that PFM did not violate any rules and regulations and that the TDEC is not entitled to such penalties. The Company intends for

PFM to vigorously defend itself in connection with this matter. This paragraph contains forward-looking statements which are subject to certain factors that could cause the actual results to differ materially from anticipated results, including, but not limited to, certain factors set forth in "Forward-Looking Statements" of this "Management's Discussion and Analysis of Financial Condition and Results of Operations."

#### Liquidity and Capital Resources of the Company

At September 30, 1997, the Company had cash and cash equivalents of \$110,000. This cash and cash equivalents total reflects an increase of \$65,000 from December 31, 1996, as a result of net cash used in operations of \$619,000, cash used in investing activities of \$949,000 (principally purchases of equipment, net totaling \$899,000, partially offset by the proceeds from the sale of property and equipment of \$52,000) and cash provided by financing activities of \$1,633,000 (principally from the proceeds from issuance of stock totaling \$3,380,000, partially offset by repayments of long-term debt and the revolving loan and term note facility). Accounts receivable, net of allowances, totaled \$5,063,000, a decrease of \$486,000 from the December 31, 1996 balance of \$5,549,000, which reflects the reduced revenue levels during the third quarter, and improved collection activities.

Under the Heller Agreement, as entered into in January 1995, the Company was provided a term loan of \$2,500,000 and a revolving loan facility in the amount of \$7,000,000. The term loan is for a term of 36 months, payable in monthly installments of \$42,000 and a balloon payment for the balance on January 31, 1998. The revolving loan facility is reduced by the outstanding unpaid principal amount due on the term loan and is subject to the maximum credit availability, determined through a monthly borrowing base equal to 80% of the eligible accounts receivable (as defined in the loan agreement) of the Company and its subsidiaries. The termination date of the revolving loan facility is also January 31, 1998. See Note 2 to Notes to Consolidated Financial Statements.

As noted above, the Heller Agreement has a scheduled termination date of January 31, 1998. The Company is currently negotiating with Heller for the renewal of this Agreement and has received proposals from two other potential lenders, one of which

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has provided a commitment, to replace the term and revolving loans provided to the Company by Heller. There are no assurances that such a renewal or new credit facility will be obtained. As a result of this scheduled termination date, and in compliance with Generally Accepted Accounting Principles, the Company has reclassified as a current liability \$2,666,000 outstanding under the Heller Agreement that would otherwise be classified as long-term debt. As of September 30, 1997, the Company was in default of, among other things, the "Minimum EBITDA", "Capital Expenditure Limit" and "Fixed Charge Coverage" financial covenants of the Agreement. The financial covenant defaults are principally a result of the facility disruption and resulting net loss incurred by the Perma-Fix of Memphis, Inc. ("PFM") facility due to an explosion and fire in January 1997 (see Note 5) and the additional capital spending in conjunction with the equity raised during 1997. The Company is currently negotiating with Heller for a waiver of this default. Heller has tentatively agreed to forebear from exercising any rights and remedies under the Heller Agreement as a result of these defaults and continues to make normal advances under the revolving loan facility.

As of September 30, 1997, the borrowings under the Company's revolving loan facility with Heller totaled \$2,173,000, a decrease of \$706,000 from the December 31, 1996 balance of \$2,879,000, with a related additional borrowing availability of \$1,271,000, based on 80% of the amount of eligible receivables of the Company as of September 30, 1997. The balance on the term loan totaled \$993,000, as compared to \$1,383,000 at December 31, 1996. Total indebtedness under the Heller Agreement, as amended, as of September 30, 1997 was \$3,166,000, a decrease of \$1,096,000 from the December 31, 1996, balance of \$4,262,000. See Note 2 to Notes to Consolidated Financial Statements.

Pursuant to the Sixth Amendment, the Company was obligated to raise an additional \$700,000 on or before August 15, 1997, of which

\$150,000 was to be received by June 15, 1997. During the second quarter of 1997 and July, 1997, the Company fully satisfied this covenant obligation, having raised approximately \$3,632,000 principally through insurance proceeds with regard to the vandalism at the Perma-Fix of Ft. Lauderdale, Inc. ("PFL") facility in 1996 and from the issuance of the 2,500 shares of newly-created Series 4 Class D Convertible Preferred Stock ("Series 4 Preferred"), and the issuance of 350 shares of newly created Series 5 Class E Convertible Preferred Stock ("Series 5 Preferred"), as further discussed in Note 4 to Notes to Consolidated Financial Statements.

The Company received net proceeds of \$2,650,000 (after deduction of the payment of \$200,000 for broker's commissions, but prior to any legal fees and other costs in connection with the sale of the Series 4 Preferred and the Series 5 Preferred, the exchange of the Series 4 Preferred and Series 5 Preferred for the Series 6 Preferred and Series 7 Preferred, respectively, and for registration of the Common Stock issuable upon conversion of Series 6 Preferred and Series 7 Preferred. Each share of Series 4 Preferred and Series 5 Preferred sold for \$1,000 per share and has a liquidation value of \$1,000. The Company used the net proceeds to reduce its revolving line of credit. The Company reborrowed a significant portion of such funds for capital improvements at the Company's various facilities, working capital and payment of trade payables.

Ally Capital Corporation ("Ally") had previously provided the Company with an equipment financing arrangement to finance the purchase of capital equipment. As of September 30, 1997, the Company's outstanding principal balance owing under this equipment financing arrangement was \$796,000. The Company has fully utilized this equipment financing arrangement with Ally. As of September 30, 1997, the Company was in default of the "Minimum EBITDA", "Capital Expenditure Limit" and "Fixed Charge Coverage" financial covenants of the Agreement. The defaults are principally a result of the facility disruption and resulting net loss incurred by the Perma-Fix of Memphis, Inc. ("PFM") facility due to an explosion and fire in January 1997 (see Note 5) and the additional capital spending in conjunction with the equity raised during 1997. The Company is currently negotiating with Ally for a waiver of these defaults and has received proposals from two other potential lenders to replace Ally. Based upon the Company's discussions with Ally, the nature and reason for said default and the significant collateral position securing this equipment financing agreement, the Company has chosen not to reclassify the long-term balance of \$165,000 at September 30, 1997 as a current liability. See Note 2 to Notes to Consolidated Financial Statements.

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At September 30, 1997, the Company had \$4,901,000 in aggregate principal amounts of outstanding debt, as compared to \$6,360,000 at December 31, 1996. This decrease in outstanding debt of \$1,459,000 during the nine month period ended September 30, 1997 is principally a result of the repayment of the Heller revolving loan facility as a result of the issuance of the Series 4 Preferred and Series 5 Preferred. The total indebtedness under the Heller Agreement decreased during the nine month period ended September 30, 1997 by \$1,096,000.

As of September 30, 1997, total consolidated accounts payable for the Company was \$2,739,000, a decrease of \$938,000 from the December 31, 1996 balance of \$3,677,000. This decrease is principally a result of the proceeds from the Series 4 and Series 5 Preferred issued during June and July 1997.

The Company's net purchases of new capital equipment for the nine month period ended September 30, 1997 totaled approximately \$899,000, excluding financed capital expenditures of \$287,000. These expenditures were for improvements to the operations, including two (2) capital expansion projects and the construction of certain mixed waste equipment within the Waste Management Services segment, and other capital expenditures necessary to maintain compliance with federal, state or local permit standards. These capital expenditures were principally funded through the operating cash flow of the Company, proceeds from the Series 4 and Series 5 Preferred issued during June, and July 1997 and utilization of the Heller revolving loan facility. The Company has budgeted capital expenditures of \$1,250,000 for 1997 (excluding any

expenditures at PFM due to the explosion and fire), which includes completion of the two (2) above noted capital expansion projects estimated to be approximately \$200,000, as well as other identified capital and permit compliance expenditures. The Company anticipates funding these capital expenditures by a combination of lease financing with lenders other than the equipment financing arrangement discussed above, proceeds from the Series 4 Preferred and Series 5 Preferred, and/or internally generated funds. As of September 30, 1997, the Company's purchases of new capital equipment totaled \$1,185,000, of which approximately \$287,000 was financed. The Company's statements regarding its anticipated ability to fund such capital expenditures are forward-looking statements and are subject to certain factors that could cause actual results to differ materially from such statements, including, but not limited to, the factors discussed under "Forward-Looking Statements" of this "Management's Discussion and Analysis of Financial Conditions and Results of Operations."

The working capital deficit position at September 30, 1997 was \$2,718,000, as compared to a deficit position of \$773,000 at December 31, 1996. The September 30, 1997, deficit position includes the reclassification of the Heller long-term debt to current, as a result of the Heller Agreement's scheduled termination date of January 31, 1998. In compliance with Generally Accepted Accounting Principles, the Company has reclassified as a current liability \$2,666,000 outstanding under the Agreement that would otherwise be classified as long-term debt. If the Company would not have had to reclassify \$2,666,000 of the debt due to Heller under the Agreement, the September 1997 working capital deficit position would have been \$53,000, which would reflect an improvement of \$720,000 from the December deficit position. The Company is currently negotiating with Heller for the renewal of this Agreement and has received proposals from two other potential lenders to replace Heller, although no assurance can be given that such a renewal or new credit facility will be obtained.

As previously discussed, the Company's subsidiary, PFM, sustained an explosion and fire at its TSD facility in Memphis, Tennessee, on January 27, 1997, damaging certain hazardous waste storage tanks and causing certain limited contamination at the facility. The facility was non-operational until May 1997, at which time it began limited operations. PFM is in the process of repairing or removing the damaged tanks and removing or remediating the contamination caused by the explosion and fire. During the period subsequent to this explosion and fire, PFM has accepted and will continue to accept waste for processing and disposal, but has arranged for other facilities owned by the Company or subsidiaries of the Company or others not affiliated with the Company to process such waste. See "Management's Discussion and Analysis of Financial Condition and Results of Operation--Facility Disruption." The Company and PFM have property and business interruption insurance. The Company has settled its property and contents claim for \$522,000. The Company is presently in the process of negotiating with its insurance carrier regarding the amount of business interruption insurance that may be recoverable by PFM as a result

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of such occurrence. Certain statements contained in this paragraph are forward-looking statements and are subject to certain factors that could cause actual results to differ materially from those set forth above, including, but not limited to, certain factors set forth under "Forward-Looking Statements" of this "Management's Discussion and Analysis of Financial Condition and Results of Operations."

In summary, the Company has taken a number of steps to improve its operations and liquidity as discussed above, which during the first nine months of 1997 was negatively impacted by the disruption from the PFM explosion and fire. If the Company is unable to continue to improve its operations and to continue profitability in the foreseeable future, such would have a material adverse effect on the Company's liquidity position and on the Company. This is a forward-looking statement and is subject to certain factors that could cause actual results to differ materially from those in the forward-looking statement, including, but not limited to, certain factors set forth in "Forward-Looking Statements" of this "Management's Discussion and Analysis of Financial Condition and Results of Operations," the Company's ability to continue profitability or, if the Company is not able to continue

profitability, whether the Company is able to raise additional liquidity in the form of additional equity or debt.

#### Environmental Contingencies

The Company is engaged in the waste management services segment of the pollution control industry. As a participant in the on-site treatment, storage and disposal market and the off-site treatment and services market, the Company is subject to rigorous federal, state and local regulations. These regulations mandate strict compliance and therefore are a cost and concern to the Company. Because of the integral role of these regulations in providing quality environmental services, the Company makes every reasonable attempt to maintain complete compliance with these regulations; however, even with a diligent commitment, the Company, as with many of its competitors, may be required to pay fines for violations or investigate and potentially remediate its waste management facilities. See Note 3 to Notes to Consolidated Financial Statements and "Facility Disruption."

The Company routinely uses third party disposal companies, who ultimately destroy or secure landfill residual materials generated at its facilities or at a client's site. The Company, compared to certain of its competitors, disposes of significantly less hazardous or industrial by-products from its operations due to rendering material non-hazardous, discharging treated waste waters to publicly-owned treatment works and/or recycling wastes into saleable products. In the past, numerous third party disposal sites have improperly managed wastes and consequently require remedial action. As a result, any party utilizing these sites in the past or present may be liable for some or all of the remedial costs. Despite the Company's aggressive compliance and auditing procedures for disposal of wastes, the Company could, in the future, be notified that it is a potentially responsible party at a remedial action site, which could have a material adverse effect on the Company.

In addition to budgeted capital expenditures of \$1,250,000 for 1997 at the Company's treatment, storage, and disposal facilities, which are necessary to maintain permit compliance and improve operations, as discussed above, excluding capital expenditures due to the fire and explosion at the PFM facility, the Company has also budgeted for 1997 an additional \$350,000 in environmental expenditures to comply with federal, state and local regulations in connection with remediation of certain contaminants at two locations of which approximately \$165,000 has been spent during the nine months ended September 30, 1997. The two locations where these expenditures will be made are at a certain leased property in Dayton, Ohio, a former RCRA storage facility operated by the former owners of PFD and leased by a predecessor of PFD, and PFM's facility in Memphis, Tennessee (excluding any capital expenditures due to the previously discussed fire and explosion at PFM). Additional funds will be required for the next five to fifteen years to properly investigate and remediate these sites. The Company has accrued \$1,468,000 for estimated costs of remediating these two sites (excluding any expenditures due to the fire and explosion at PFM), which is projected to be the maximum exposure and is expected to be performed over a period in excess of ten (10) years. The Company expects to fund these expenses to remediate these two sites from funds generated internally. This is a forward

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looking statement and is subject to numerous conditions. See "Management's Discussion and Analysis of Financial Condition and Results of Operations-- Forward Looking Statements".

#### Recent Accounting Pronouncement

In February 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 128 "Earnings Per Share" ("SFAS 128"). SFAS 128 establishes new standards for computing and presenting earnings per share ("EPS"). Specifically, SFAS 128 replaces the presentation of primary EPS with a presentation of basic EPS, requires dual presentation of basic and diluted EPS on the face of the income statement for all entities with complex capital structures and requires a reconciliation of the numerator and denominator of the basic EPS computation to the numerator and denominator of the diluted EPS computation. SFAS 128 is effective for financial statements issued for periods ending after December 15, 1997, earlier application is not permitted. EPS for the three and nine months ended September

30, 1997 and 1996 computed under SFAS 128 would not be materially different than previously computed.

In June 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income," ("FAS 130") and No. 131, "Disclosure about Segments of an Enterprise and Related Information," ("FAS 131"). FAS 130 Establishes standards for reporting and displaying comprehensive income, its components and accumulated balances. FAS 131 establishes standards for the way that public companies report information about operating segments in annual financial statements and requires reporting of selected information about operating segments in interim financial statements issued to the public. Both FAS 130 and FAS 131 are effective for periods beginning after December 15, 1997. The Company has not determined the impact that the adoption of these new accounting standards will have on its future financial statements and disclosures.

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.

## PART II - Other Information

### Item 1. Legal Proceedings

There are no additional legal proceedings pending against the Company and/or its subsidiaries not previously reported by the Company in Item 3 of its Form 10-K for the fiscal year ended December 31, 1996 or Part II, Item 1 of the Form 10-Q for the quarters ended March 31, 1997 and June 30, 1997.

During September 1994, Perma-Fix of Memphis, Inc. ("PFM"), formerly American Resource Recovery Corporation ("ARR") and a subsidiary of the Company, was sued by Community First Bank ("Community First") to collect a note in the principal sum of \$341,000 that was allegedly made by ARR to CTC Industrial Services, Inc. ("CTC") in February 1987 (the "Note"), and which was allegedly pledged by CTC to Community First in December 1988 to secure certain loans to CTC. This lawsuit styled Community First Bank v. American Resource Recovery Corporation, was instituted on September 14, 1994, and is pending in the Circuit Court, Shelby County, Tennessee. The Company was not aware of either the Note or its pledge to Community First at the time of the Company's acquisition of PFM in December 1993. The Company vigorously defended itself in connection therewith and filed a third party complaint against Billie Kay Dowdy, who was the sole shareholder of PFM immediately prior to the acquisition of PFM by the Company, alleging that Ms. Dowdy was required to defend and indemnify the Company and PFM from and against this action under the terms of the agreement relating to the Company's acquisition of PFM. This matter was settled on August 29, 1997. PFM and Dowdy each agreed to pay the plaintiff \$45,000 in exchange for a full and complete release and a dismissal of the above matter.

### Item 2. Changes in Securities

(c) During the quarter ended September 30, 1997, the Company sold, or entered into an agreement to sell, equity securities that were not registered under the Securities Act of 1933, as amended ("Securities Act"), as follows:

(i) On or about June 11, 1997, the Company issued to RBB Bank Aktiengesellschaft, located in Graz, Austria ("RBB Bank"), 2,500 shares of newly-created Series 4 Class D Convertible Preferred Stock, par value \$.001 per share ("Series 4 Preferred"), at a price of \$1,000 per share, for an aggregate sales price of \$2,500,000. The sale to RBB Bank was made in a private placement under Rule 506 of Regulation D under the Securities Acts of 1933, as amended ("Securities Act"), pursuant to the terms of a Subscription and Purchase Agreement, dated June 9, 1997, between the Company and RBB Bank ("Subscription Agreement"). The Series 4 Preferred has a liquidation preference over the Company's Common Stock equal to \$1,000 consideration per outstanding share of Series 4 Preferred (the "Liquidation Value"), plus an amount equal to all accrued and unpaid dividends. The Series 4 Preferred accrues dividends on a cumulative basis at a rate of four percent (4%) per annum of the Liquidation Value ("Dividend Rate"), and is payable semi-annually when and as declared by the Board of Directors. No dividends or

other distributions may be paid or declared or set aside for payment on the Company's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 4 Preferred have been paid or set aside for payment. Dividends may be paid, at the option of the Company, in the form of cash or Common Stock of the Company. If the Company pays dividends in Common Stock, such is payable in the number of shares of Common Stock equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Common Stock as reported on the NASDAQ for the five trading days immediate prior to the date the dividend is declared, times (b) a fraction, the numerator of which is the number of days elapsed during the period for which the dividend is to be paid and the denominator of which is 365.

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The holder of the Series 4 Preferred may convert into Common Stock up to 1,250 shares of the Series 4 Preferred on and after October 5, 1997, and the remaining 1,250 shares of the Series 4 Preferred on and after November 5, 1997. The conversion price per share is the lesser of (a) the product of the average closing bid quotation of the Common Stock as reported on the NASDAQ for the five (5) trading days immediately preceding the conversion date multiplied by eighty percent (80%) or (b) \$1.6875. The minimum conversion price is \$.75, which minimum will be eliminated from and after September 6, 1998. Subject to the closing bid price of the Company's Common Stock at the time of the conversion and other conditions which could increase the number of shares to be issued upon conversion, the Series 4 Preferred, if all were converted, could be converted into between 1,482,000 and 3,334,000 shares of Common Stock, or more after the minimum conversion price is eliminated or under certain other limited conditions. The Company will have the option to redeem the shares of Series 4 Preferred (a) between June 11, 1998, and June 11, 2001, at a redemption price of \$1,300 per share if at any time the average closing bid price of the Common Stock for ten consecutive trading days is in excess of \$4.00, and (b) after June 11, 2001, at a redemption price of \$1,000 per share. The holder of the Series 4 Preferred will have the option to convert the Series 4 Preferred prior to redemption by the Company.

As part of the sale of the Series 4 Preferred, the Company also issued to RBB Bank two common stock purchase warrants (collectively, the "Warrants") entitling RBB Bank to purchase, after December 31, 1997 and until June 9, 2000, an aggregate of up to 375,000 shares of Common Stock, subject to certain anti-dilution provisions, with 187,500 shares exercisable at a price equal to \$2.10 per share and 187,500 shares exercisable at a price equal to \$2.50 per share. 1,482,000 shares of Common Stock issuable on the conversion of the Series 4 Preferred, 250,000 shares of Common Stock issuable in payment of accrued dividends on the Series 4 Preferred and the shares of Common Stock issuable on the exercise of the Warrants are subject to certain registration rights pursuant to the Subscription Agreement.

Effective September 16, 1997 the Company entered into an Exchange Agreement with RBB Bank ("RBB Exchange Agreement") which provided that the 2,500 shares of Series 4 Preferred and the RBB Series 4 Warrants were tendered to the Company in exchange for (i) 2,500 shares of a newly created Series 6 Class F Preferred Stock, par value \$.001 per share ("Series 6 Preferred"), (ii) two warrants each to purchase 187,500 shares of Common Stock exercisable at \$1.8125 per share, and (iii) one warrant to purchase 281,250 shares of Common Stock exercisable at \$2.125 per share (collectively, the "RBB Series 6 Warrants"). The RBB Series 6 Warrants are for a term of three (3) years and may be exercised at any time after December 31, 1997, and until June 9, 2000.

The conversion price of the Series 6 Preferred shall be \$1.8125 per share, unless the closing bid quotation of the Common Stock is lower than \$2.50 in twenty (20) out of any thirty (30) consecutive trading days after March 1, 1998, in which case, the conversion price per share shall be the lesser of (A) the product of the average closing bid quotation for the five (5) trading days immediately preceding the conversion date multiplied by eighty percent (80%) or (B) \$1.8125 with the minimum conversion price being \$.75, which minimum will be eliminated from and after September 6, 1998. The remaining terms of the Series 6 Preferred are substantially the same as the terms of the Series 4 Preferred.



(ii) On or about July 14, 1997, the Company issued to the Infinity Fund, L.P. ("Infinity"), 350 shares of newly-created Series 5 Class E Convertible Preferred Stock, par value \$.001 per share ("Series 5 Preferred"), at a price of \$1,000 per share, for an aggregate sales price of \$350,000. The sale to Infinity was made in a private placement under Rule 506 of Regulation D under the Securities Acts of 1933, as amended, pursuant to the terms of a Subscription and Purchase Agreement, dated July 7, 1997, between

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the Company and Infinity ("Infinity Subscription Agreement"). The Company intends to utilize the proceeds received on the sale of Series 5 Preferred for the payment of debt and general working capital.

The Series 5 Preferred has a liquidation preference over the Company's Common Stock, par value \$.001 per share ("Common Stock"), equal to \$1,000 consideration per outstanding share of Series 5 Preferred (the "Liquidation Value"), plus an amount equal to all unpaid dividends accrued thereon. The Series 5 Preferred accrues dividends on a cumulative basis at a rate of four percent (4%) per annum of the Liquidation Value ("Dividend Rate"). Dividends are payable semi-annually when and as declared by the Board of Directors. No dividends or other distributions may be paid or declared or set aside for payment on the Company's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 5 Preferred have been paid or set aside for payment. Dividends may be paid, at the option of the Company, in the form of cash or Common Stock of the Company. If the Company pays dividends in Common Stock, such is payable in the number of shares of Common Stock equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Common Stock as reported on the NASDAQ for the five trading days immediately prior to the date the dividend is declared, multiplied by (b) a fraction, the numerator of which is the number of days elapsed during the period for which the dividend is to be paid and the denominator of which is 365.

The holder of the Series 5 Preferred may convert into Common Stock up to 175 shares of the Series Preferred on and after November 3, 1997, and the remaining 175 shares of the Series 5 Preferred on and after December 3, 1997. The conversion price per share is the lesser of (a) the product of the average closing bid quotation for the five trading days immediately preceding the conversion date multiplied by 80% or (b) \$1.6875. The minimum conversion price is \$.75, which minimum will be eliminated from and after September 6, 1998. The Company will have the option to redeem the shares of Series 5 Preferred (a) between July 14, 1998, and July 13, 2001, at a redemption price of \$1,300 per share if at any time the average closing bid price of the Common Stock for ten consecutive trading days is in excess of \$4.00, and (b) after July 13, 2001, at a redemption price of \$1,000 per share. The holder of the Series 5 Preferred will have the option to convert the Series 5 Preferred prior to redemption by the Company. A certain number of shares of Common Stock issuable upon conversion of the Series 5 Preferred is subject to certain registration rights pursuant to the Infinity Subscription Agreement.

Effective September 16, 1997, the Company entered into an Exchange Agreement with Infinity ("Infinity Fund Exchange Agreement") which provided that the 350 shares of Series 5 Preferred were tendered to the Company in exchange for (i) 350 shares of a newly created Series 7 Class G Preferred Stock, par value \$.001 per share ("Series 7 Preferred"), and (ii) one Warrant to purchase up to 35,000 shares of Common Stock exercisable at \$1.8125 per share ("Series 7 Warrant"). The Infinity Fund Series 7 Warrant is for a term of three (3) years and may be exercised at any time after December 31, 1997, and until July 7, 2000.

The conversion price of the Series 7 Preferred shall be \$1.8125 per share, unless the closing bid quotation of the Common Stock is lower than \$2.50 per share in twenty (20) out of any thirty (30) consecutive trading days after March 1, 1998, in which case, the conversion price per share shall be the lesser of (i) the product of the average closing bid quotation for the five (5) trading days immediately preceding the conversion date multiplied by eighty percent (80%) or (ii) \$1.8125, with the minimum conversion price being \$.75, which minimum will be eliminated from and after September 6, 1998. The remaining terms of the Series 7 Preferred

are substantially the same as the terms of the Series 5 Preferred.

(iii) On June 30, 1997, the Company entered into a Stock Purchase Agreement ("Centofanti Agreement") with Dr. Louis F. Centofanti, under which the Company agreed to sell, and

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Dr. Centofanti agreed to purchase 24,381 shares of the Company's Common Stock. The purchase price was \$1.6406 per share representing 75% of the \$2.1875 closing bid price of the Common Stock as quoted on the NASDAQ on the date that Dr. Centofanti notified the Company of his desire to purchase such shares. Pursuant to the terms of the Centofanti Agreement, Dr. Centofanti was to pay the Company the aggregate purchase price of \$40,000 for the 24,381 shares of Common Stock. Dr. Centofanti purchased 12,190 shares, during July for \$20,000, and during October, the Agreement was amended to reduce the number of shares of Common Stock that Dr. Centofanti is to acquire under the Centofanti Agreement to the 12,190 shares already acquired by Dr. Centofanti under the Centofanti Agreement, upon consideration of the certain recent accounting pronouncements related to stock based compensation. The sale of the shares pursuant to the Centofanti Agreement and its subsequent amendment dated October 7, 1997, for the sale of 12,190 shares were authorized by the Company's Board of Directors.

(iv) On July 30, 1997, the Company entered into a Stock Purchase Agreement ("Gorlin Agreement") with Mr. Steve Gorlin, a Director of the Company, whereby the Company agreed to sell, and Mr. Gorlin agreed to purchase, 200,000 shares of the Company's Common Stock. The purchase price was \$2.125 per share representing the closing bid price of the Common Stock as quoted on the NASDAQ on July 30, 1997. Pursuant to the terms of the Gorlin Agreement, Mr. Gorlin agreed to pay the Company the aggregate purchase price of \$425,000 for the 200,000 shares of Common Stock. In order to induce Mr. Gorlin to enter into the amendment to the Gorlin Agreement, and to purchase the Common Stock on the terms and subject to the conditions thereof, PESI agreed to issue a three (3) year Warrant to Mr. Gorlin for the purchase of 100,000 shares of Common Stock at \$2.40 per share. Under the Gorlin Agreement, Mr. Gorlin agreed to tender \$425,000 during August, 1997, however, pursuant to an amendment to the Gorlin Agreement, which was entered into on October 7, 1997, the payment schedule was modified such that Mr. Gorlin agreed to tender the \$425,000 on or before November 30, 1997.

### Item 3. Defaults Upon Senior Securities

Since the quarter ended September 30, 1997 and continuing through the date of this report, the Company has not been in compliance with certain financial covenants contained in the Company's loan agreement with Heller Financial, Inc. ("Heller") relating to the Company's term loan and revolving line of credit and the loan agreement with Ally Capital Corporation ("Ally") relating to certain equipment financing. Since September 30, 1997, the Company has been in default on the "Minimum EBITDA", "Capital Expenditure Limit" and "Fixed Charge Coverage" financial covenants contained in such loan agreements, principally a result of the facility disruption and resulting net loss incurred by the Perma-Fix of Memphis, Inc. ("PFM") facility due to an explosion and fire in January 1997 and the additional capital spending in conjunction with the equity raised during 1997. The Company is currently negotiating with Heller and Ally for a waiver of such defaults, but there are no assurances that the Company will receive such waivers. Neither Heller nor Ally have accelerated payments of the loans as of the date of this report as a result of such default, and Heller is continuing to make advances to the Company under the revolving line of credit as of the date of this report in accordance with the terms thereof. See Note 2 to Notes to Consolidated Financial Statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations Liquidity and Capital Resources of the Company."

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### Item 6. Exhibits and Reports on Form 8-K

#### (a) Exhibits

- 3(i) Restated Certificate of Incorporation, as amended, and all Certificates of Designations.

- 3(ii) Bylaws, as incorporated by reference to the Company's Registration Statement, No. 33-51874.
- 4.1 Subscription and Purchase Agreement, dated June 9, 1997, between the Company and RBB Bank Aktiengesellschaft is incorporated by reference from Exhibit 4.1 to the Company's Form 8-K, dated June 11, 1997.
- 4.2 Certificate of Designations of Series 4 Class D Convertible Preferred Stock, dated June 9, 1997, is incorporated by reference from Exhibit 4.2 to the Company's Form 8-K, dated June 11, 1997.
- 4.3 Specimen copy of Certificate relating to the Series 4 Class D Convertible Preferred Stock is incorporated by reference from Exhibit 4.3 to the Company's Form 8-K, dated June 11, 1997.
- 4.4 Subscription and Purchase Agreement, dated July 7, 1997, between the Company and The Infinity Fund, L.P. is incorporated by reference from Exhibit 4.1 to the Company's Form 8-K, dated July 7, 1997.
- 4.5 Certificate of Designations of Series 5 Class E Convertible Preferred Stock, dated July 14, 1997, is incorporated by reference from Exhibit 4.2 to the Company's Form 8-K, dated July 7, 1997.
- 4.6 Specimen copy of Series 5 Class E Convertible Preferred Stock certificate is incorporated by reference from Exhibit 4.3 to the Company's Form 8-K, dated July 7, 1997.
- 4.7 Certificate of Designations of Series 6 Class F Convertible Preferred Stock, dated November 6, 1997, incorporated by reference from Exhibit 3 (i) above.
- 4.8 Specimen copy of Series 6 Class F Convertible Preferred Stock Certificate.
- 4.9 Certificate of Designations of Series 7 Class G Convertible Preferred Stock, dated October 30, 1997, incorporated by reference from Exhibit 3 (i) above.
- 4.10 Specimen copy of Series 7 Class G Convertible Preferred Stock Certificate.
- 4.11 Exchange Agreement dated November 6, 1997, to be considered effective as of September 16, 1997, between the Company and RBB Bank.
- 4.12 Exchange Agreement dated as of October 31, 1997, to be considered effective as of September 16, 1997, between the Company and the Infinity Fund, L.P.
- 10.1 Common Stock Purchase Warrant (\$2.10) dated June 9, 1997, between the Company and RBB Bank Aktiengesellschaft is incorporated by reference from Exhibit 4.4 to the Company's Form 8-K, dated June 11, 1997.
- 10.2 Common Stock Purchase Warrant (\$2.50) dated June 9, 1997, between the Company and RBB Bank Aktiengesellschaft is incorporated by reference from Exhibit 4.5 to the Company's Form 8-K, dated June 11, 1997.
- 10.3 Common Stock Purchase Warrant (\$1.50) dated June 9, 1997, between the Company and J W Charles Securities, Inc. is incorporated by reference from Exhibit 4.6 to the Company's Form 8-K, dated June 11, 1997.

- 10.4 Common Stock Purchase Warrant (\$2.00) dated June 9, 1997, between the Company and J W Charles Securities, Inc. is incorporated by reference from Exhibit 4.7 to the company's Form 8-K, dated June 11, 1997.
- 10.5 Stock Purchase Agreement, dated June 30, 1997, between the Company and Dr. Louis F. Centofanti is incorporated by reference from Exhibit 4.4 to the Company's Form 8-K, dated July 7, 1997.
- 10.6 Amended Stock Purchase Agreement, dated October 7, 1997, between the Company and Dr. Louis F. Centofanti.
- 10.7 Amended Stock Purchase Agreement, dated October 7, 1997, between the Company and Steve Gorlin.
- 10.8 Stock Purchase Agreement, dated July 31, 1997, between the Company and Steve Gorlin.
- 10.9 Employment Agreement, dated October 1, 1997, between the Company and Dr. Louis F. Centofanti.
- 27 Financial Data Schedule

(b) Reports on Form 8-K

A current report on Form 8-K (Item 5. Other Event) was filed on July 25, 1997 reporting that on July 14, 1997, the Company issued 350 shares of its newly created Series 5 Class E Preferred Stock at a price of \$1,000 per share, for an aggregate sales price of \$350,000. It is also reported that on June 30, 1997, the Company entered into a Stock Purchase Agreement with Dr. Louis F. Centofanti to purchase 24,381 shares of Common Stock at a purchase price of \$1.6406 per share, for an aggregate sales price of \$40,000.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

Date: November 18, 1997

By: /s/ Dr. Louis F. Centofanti

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

By: /s/ Richard T. Kelecy

\_\_\_\_\_  
Richard T. Kelecy  
Chief Financial Officer

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	as amended, and all Certificates of Designations.....	33
Exhibit 3(ii)	Bylaws, as incorporated by reference to the Company's Registration Statement, No. 33-51874.....	*
Exhibit 4.1	Subscription and Purchase Agreement, dated June 9, 1997, between the Company and RBB Bank Aktiengesellschaft is incorporated by reference from Exhibit 4.1 to the Company's Form 8-K, dated June 11, 1997.....	*
Exhibit 4.2	Certificate of Designations of Series 4 Class D Convertible Preferred Stock, dated June 9, 1997, is incorporated by reference from Exhibit 4.2 to the Company's Form 8-K, dated June 11, 1997..	*
Exhibit 4.3	Specimen copy of Certificate relating to the Series 4 Class D Convertible Preferred Stock is incorporated by reference from Exhibit 4.3 to the Company's Form 8-K, dated June 11, 1997.....	*
Exhibit 4.4	Subscription and Purchase Agreement, dated July 7, 1997, between the Company and The Infinity Fund, L.P. is incorporated by reference from Exhibit 4.1 to the Company's Form 8-K, dated July 7, 1997.....	*
Exhibit 4.5	Certificate of Designations of Series 5 Class E Convertible Preferred Stock, dated July 14, 1997, is incorporated by reference from Exhibit 4.2 to the Company's Form 8-K, dated July 7, 1997....	*
Exhibit 4.6	Specimen copy of Series 5 Class E Convertible Preferred Stock certificate is incorporated by reference from Exhibit 4.3 to the Company's Form 8-K dated July 7, 1997.....	*
Exhibit 4.7	Certificate of Designations of Series 6 Class F Convertible Preferred Stock, dated November 6, 1997, incorporated by reference from Exhibit 3(i) herein.....	
Exhibit 4.8	Specimen copy of Series 6 Class F Convertible Preferred Stock Certificate . . . . .	142
Exhibit 4.9	Certificate of Designations of Series 7 Class G Convertible Preferred Stock, dated October 30, 1997, incorporated by reference from Exhibit 3 (i) herein.....	
Exhibit 4.10	Specimen copy of Series 7 Class G Convertible Preferred Stock Certificate.....	
Exhibit 4.11	Exchange Agreement dated November 6, 1997, to be considered effective as of September 16, 1997, between the Company and RBB Bank.....	144
Exhibit 4.12	Exchange Agreement dated as of October 31, 1997, to be considered effective as of September 16, 1997, between the Company and the Infinity Fund, L.P.....	172
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Exhibit 10.1	Common Stock Purchase Warrant (\$2.10) dated June 9, 1997, between the Company and RBB Bank Aktiengesellschaft is incorporated by reference from Exhibit 4.4 to the Company's Form 8-K, dated June 11, 1997.....	*
Exhibit 10.2	Common Stock Purchase Warrant (\$2.50) dated June 9, 1997, between the Company and RBB Bank Aktiengesellschaft is incorporated by reference from Exhibit 4.5 to the Company's Form 8-K, dated June 11, 1997.....	*

Exhibit 10.3	Common Stock Purchase Warrant (\$1.50) dated June 9, 1997, between the Company and J W Charles Securities, Inc. is incorporated by reference from Exhibit 4.6 to the Company's Form 8-K, dated June 11, 1997.....	*
Exhibit 10.4	Common Stock Purchase Warrant (\$2.00) dated June 9, 1997, between the Company and J W Charles Securities, Inc. is incorporated by reference from Exhibit 4.7 to the Company's Form 8-K, dated June 11, 1997.....	*
Exhibit 10.5	Stock Purchase Agreement, dated June 30, 1997, between the Company and Dr. Louis F. Centofanti is incorporated by reference from Exhibit 4.4 to the Company's Form 8-K, dated June 7, 1997.....	*
Exhibit 10.6	Amended Stock Purchase Agreement, dated October 7, 1997, between the Company and Dr. Louis F. Centofanti.....	203
Exhibit 10.7	Amended Stock Purchase Agreement, dated October 7, 1997, between the Company and Steve Gorlin.....	209
Exhibit 10.8	Stock Purchase Agreement, dated July 31, 1997, between the Company and Steve Gorlin.....	216
Exhibit 10.9	Employment Agreement, dated October 1, 1997, between the Company and Dr. Louis F. Centofanti.....	223
Exhibit 27	Financial Data Schedule.....	240

\*incorporated by reference

I, WILLIAM T. QUILLEN, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF RESTATED CERTIFICATE OF INCORPORATION OF "NATIONAL ENVIRONMENTAL INDUSTRIES, LTD." FILED IN THIS OFFICE ON THE TWENTY-SIXTH DAY OF NOVEMBER, A.D. 1991 AT 10 O'CLOCK A.M.

\* \* \* \* \*

/s/ William T. Quillen

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William T. Quillen,  
Secretary of State

Authentication: 3909777  
Date: 05/24/1993

931445217

RESTATED CERTIFICATE OF INCORPORATION  
OF  
NATIONAL ENVIRONMENTAL INDUSTRIES, LTD.

1. The present name of the corporation (hereinafter called the "Corporation") is National Environmental Industries, Ltd., and the date of filing the original certificate of incorporation of the Corporation with the Secretary of State of the State of Delaware is December 19, 1990.

2. The certificate of incorporation of the Corporation is hereby amended by striking out Articles FOURTH through NINTH thereof and by substituting in lieu thereof new Articles FOURTH through NINTH as set forth in the Restated Certificate of Incorporation hereinafter provided for.

3. The provisions of the certificate of incorporation as heretofore amended and/or supplemented, and as herein amended, are hereby restated and integrated into the single instrument which is hereinafter set forth, and which is entitled Restated Certificate of Incorporation of National Environmental Industries, Ltd. without any further amendment other than the amendment certified herein and without any discrepancy between the provisions of the certificate of incorporation as heretofore amended and supplemented and the provisions of the said single instrument hereinafter set forth.

4. The amendment and restatement of the certificate of incorporation herein certified have been duly adopted by the stockholders in accordance with the provisions of Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware. Prompt written notice of the adoption of the amendment and of the restatement of the certificate of incorporation herein certified

has been given to those stockholders who have not consented in writing thereto, as provided in Section 228 of the General Corporation Law of the State of Delaware.

5. The certificate of incorporation of the Corporation, as amended and restated herein, shall at the effective time of this Restated Certificate of Incorporation, read as follows:

"Restated Certificate of Incorporation  
of  
National Environmental Industries, Ltd.

FIRST: The name of the Corporation is National Environmental Industries, Ltd.

SECOND: The address of the Corporation's registered office in the State of Delaware is 32 Loockerman Square, Suite L-100, City of Dover, County of Dover. The name of its registered agent at such address is The Prentice-Hall Corporation System, Inc.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the laws of the General Corporation Law of the State of Delaware.

FOURTH: The total number of shares of capital stock which the Corporation shall have authority to issue is Twenty-Two Million (22,000,000) shares, of which Twenty Million (20,000,000) shares shall be Common Stock, par value \$.001 per share, and Two Million (2,000,000) shares shall be Preferred Stock, \$.001 par value per share.

The Preferred Stock may be issued from time to time in one or more series. The Board of Directors is hereby expressly authorized to provide, by resolution or resolutions duly adopted by it prior to issuance, for the creation of each such series and to fix the designation and the powers, preferences, rights, qualifications, limitations and restrictions relating to the shares of each such series. The authority of the Board of Directors with respect to each such series of Preferred Stock shall include, but not be limited to, determining the following:

(a) the designation of such series, the number of shares to constitute such series and the stated value if different from the par value thereof;

(b) whether the shares of such series shall have voting rights, in addition to any voting rights provided by law, and, if so, the terms of such voting rights, which may be general or limited;

(c) the dividends, if any, payable on such series, whether any such dividends shall be cumulative, and, if so, from what dates, the conditions and dates upon which such dividends shall be payable, and the preference or relation which such dividends shall bear to the dividends payable on any shares of stock of any other class or any other series of Preferred Stock;

(d) whether the shares of such series shall be subject to redemption by the Corporation, and, if so, the times, prices and other conditions of such redemption;

(e) the amount or amounts payable upon shares of such



series upon, and the rights of the holders of such series in, the voluntary or involuntary liquidation, dissolution or winding up, or upon any distribution of the assets of the Corporation;

(f) whether the shares of such series shall be subject to the operation of a retirement or sinking fund and, if so, the extent to and manner in which any such retirement or sinking fund shall be applied to the purchase or redemption of the shares of such series for retirement or other corporate purposes and the terms and provisions relating to the operation thereof;

(g) whether the shares of such series shall be convertible into, or exchangeable for, shares of stock of any other class or any other series of Preferred Stock or any other securities and, if so, the price or prices or the rate or rates of conversion or exchange and the method, if any, of adjusting the same, and any other terms and conditions of conversion or exchange;

(h) the limitations and restrictions, if any, to be effective while any shares of such series are outstanding upon the payment of dividends or the making of other distributions on, and upon the purchase, redemption or other acquisition by the Corporation of, the Common Stock or shares of stock of any other class or any other series of Preferred Stock;

(i) the conditions or restrictions, if any, upon the creation of indebtedness of the Corporation or upon the issue of any additional stock, including additional shares of such series or of any other series of Preferred Stock or of any other class; and

(j) any other powers, preferences and relative participating, optional and other special rights, and any qualifications, limitations and restrictions thereof.

The powers, preferences and relative, participating, optional and other special rights of each series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may differ from those of any and all other series at any time outstanding. All shares of any one series of Preferred Stock shall be identical in all respects with all other shares of such series, except that shares of any one series issued at different times may differ as to the dates from which dividends thereof shall be cumulative.

FIFTH: Unless required by law or determined by the chairman of the meeting to be advisable, the vote by stockholders on any matter, including the election of directors, need not be by written ballot.

SIXTH: The Corporation reserves the right to increase or decrease its authorized capital stock, or any class or series thereof, and to reclassify the same, and to amend, alter, change or repeal any provision contained in the Certificate of Incorporation under which the Corporation is organized or in any amendment thereto, in the manner now or hereafter prescribed by law, and all rights conferred upon stockholders in said Certificate of Incorporation or any amendment thereto are granted subject to the aforementioned reservation.

SEVENTH: The Board of Directors shall have the power at any time, and from time to time, to adopt, amend and repeal any and all By-Laws of the Corporation.

EIGHTH: All persons who the Corporation is empowered to indemnify pursuant to the provisions of 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), shall be indemnified by the Corporation to the full extent permitted thereby. The foregoing right of indemnification shall not be deemed to be exclusive of any other rights to which those seeking indemnification maybe entitled under any by-law, agreement, vote of stockholders or disinterested directors, or otherwise. No repeal or amendment of this Article EIGHTH shall adversely affect any rights of any person pursuant to this Article Eighth which existed at the time of such repeal or amendment with respect to acts or omissions occurring prior to such repeal or amendment.

NINTH: No director of the Corporation shall be personally liable to the Corporation or its stockholders for any monetary damages for breaches of fiduciary duty as a director, provided that this provisions 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 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 General Corporation Law of the State of Delaware; or (iv) for any transaction from which the director derived an improper personal benefit. No repeal or amendment of this Article NINTH shall adversely affect any rights of any person pursuant to this Article NINTH which existed at the time of such repeal or amendment with respect to acts or omissions occurring prior to such repeal or amendment."

IN WITNESS WHEREOF, we have signed this Certificate this 22nd day of November, 1991.

/s/ Louis Centofanti

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ATTEST:

/s/ Carol A. Dixon

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Secretary

State of Delaware  
Office of the Secretary of State

Page 1

I, WILLIAM T. QUILLEN, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "NATIONAL ENVIRONMENTAL INDUSTRIES, LTD." FILED IN THIS OFFICE ON THE SEVENTEENTH DAY OF DECEMBER, A.D. 1991, AT 4:30 O'CLOCK P.M.

\* \* \* \* \*

/s/ William T. Quillen

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William T. Quillen,  
Secretary of State

Authentication: 3909774

Date: 05/24/1993

931445217

CERTIFICATE OF AMENDMENT  
TO THE  
RESTATED CERTIFICATE OF INCORPORATION  
OF  
NATIONAL ENVIRONMENTAL INDUSTRIES, LTD.

It is hereby certified that:

1. The name of the corporation (hereinafter called the "Corporation") is National Environmental Industries, Ltd.

2. The Restated Certificate of Incorporation is hereby amended by striking out Article FIRST thereof and by substituting in lieu of said Article FIRST the following new Article:

"FIRST: The name of the Corporation is  
Perma-Fix Environmental Services, Inc."

3. The amendment of the Certificate of Incorporation herein certified has been duly adopted in accordance with the provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware. Prompt written notice of the adoption of the amendment herein certified has been given to those stockholders who have not consented in writing thereto, as provided in Section 228 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, we have signed this Certificate this 16th day of December, 1991.

/s/ Louis Centofanti

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Louis Centofanti, President

ATTEST:

/s/ Mark Zwecker

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Mark Zwecker, Secretary

State of Delaware  
Office of the Secretary of State

Page 1

I, WILLIAM T. QUILLEN, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "PERMA-FIX ENVIRONMENTAL SERVICES, INC." FILED IN THIS OFFICE ON THE FOURTH DAY OF SEPTEMBER, A.D. 1992, AT 11:30 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO

\* \* \* \* \*

/s/ William T. Quillen

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William T. Quillen,  
Secretary of State

Authentication: 3909773

Date: 05/24/1993

931445217

CERTIFICATE OF AMENDMENT  
TO  
RESTATED CERTIFICATE OF INCORPORATION, AS AMENDED  
OF  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Perma-Fix Environmental Services, Inc., a Delaware corporation (the "Corporation"), does hereby certify:

That the amendment set forth below to the Corporation's Restated Certificate of Incorporation, as amended, was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware and written notice thereof has been given as provided in Section 228 thereof:

I) The first paragraph of Article FOURTH of the Corporation's Restated Certificate of Incorporation, as amended, is hereby deleted and replaced in its entirety by the following:

Fourth: The total number of shares of capital stock that the Corporation shall have authority to issue is 22,000,000 shares of which 20,000,000 shares of the par value of \$.001 per share shall be designated Common Stock ("Common Stock"), and 2,000,000 shares of the par value of \$.001 per share shall be designated Preferred Stock.

As of September 4, 1992 (the "Effective Time"), each share of Common Stock issued and outstanding immediately prior to the Effective Time shall automatically be changed and converted, without any action on the part of the holder thereof, into 1/3.0236956 of a share of Common Stock and, in connection with fractional interests in shares of Common Stock of the Corporation, each holder whose aggregate holdings of shares of Common stock prior to the Effective Time amounted to less than 3.0236956, or to a number not evenly divisible by 3.0236956 shares of Common Stock shall be entitled to receive for such fractional interest, and at such time, any such fractional interest in shares of Common Stock of the Corporation shall be converted into the right to receive, upon surrender of the stock certificates formerly representing

shares of Common Stock of the Corporation, one whole share of Common Stock.

IN WITNESS whereof, Perma-Fix Environmental Services, Inc. has caused this Certificate to be signed and attested to by its duly authorized officers as of this first day of September, 1992.

Perma-Fix Environmental Services, Inc.

By: /s/ Louis Centofanti

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ATTEST:

By: /s/ Mark Zwecker

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State of Delaware  
Office of the Secretary of State

Page 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DESIGNATION OF "PERMA-FIX ENVIRONMENTAL SERVICES, INC." FILED IN THIS OFFICE ON THE SIXTH DAY OF FEBRUARY, A.D. 1996 AT 4 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

/s/ Edward J. Freel

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Edward J. Freel,  
Secretary of State

Authentication: 7818327  
Date: 02/07/1996

960035778

CERTIFICATE OF DESIGNATIONS  
OF SERIES I CLASS A PREFERRED STOCK  
OF  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Perma-Fix Environmental Services, Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify:

That, pursuant to authority conferred upon by the Board of

Directors by the Corporation's Certificate of Incorporation, as amended, and pursuant to the provisions of Section 151 of the Delaware Corporation Law, said Board of Directors, acting by unanimous written consent in lieu of a meeting dated February 2, 1996, hereby adopted the terms of the Series I Class A Preferred Stock, which resolutions are set forth on the attached page.

Dated: February 2, 1996

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

By /s/ Louis F. Centofanti

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Dr. Louis F. Centofanti  
Chairman of the Board

ATTEST:

/s/ Mark A. Zwecker

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Mark A. Zwecker, Secretary

ISTE:\N-P\PESI\CERT.DES

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(the "Corporation")

RESOLUTION OF THE BOARD OF DIRECTORS

FIXING THE NUMBER AND DESIGNATING THE RIGHTS, PRIVILEGES,  
RESTRICTIONS AND CONDITIONS ATTACHING TO THE SERIES I CLASS A  
PREFERRED STOCK

WHEREAS,

A. The Corporation's share capital includes Preferred Stock, par value \$.001 per share ("Preferred Stock"), which Preferred Stock may be issued in one or more series with the directors of the Corporation (the "Board") being entitled by resolution to fix the number of shares in each series and to designate the rights, designations, preferences, and relative, participating, optional or other special rights, privileges, restrictions and conditions attaching to the shares of each such series; and

B. It is in the best interests of the Corporation for the Board to create a new series from the Preferred Stock designated as

the Series I Class A Preferred Stock, par value \$.001.

NOW, THEREFORE, BE IT RESOLVED, THAT:

The Series I Class A Preferred Stock, par value \$.001 (the "Series I Class A Preferred Stock") of the Corporation shall consist of 1,100 shares and no more and shall be designated as the Series I Class A Preferred Stock and in addition to the preferences, rights, privileges, restrictions and conditions attaching to all the Series I Class A Preferred Stock as a series, the rights, privileges, restrictions and conditions attaching to the Series I Class A Preferred Stock shall be as follows:

Part 1 - Voting and Preemptive Rights.

1.1 Except as otherwise provided herein, in the Certificate of Incorporation (the "Articles") or the General Corporation Law of the State of Delaware (the "GCL"), each holder of Series I Class A Preferred Stock, by virtue of his ownership thereof, shall be entitled to cast that number of votes per share thereof on each matter submitted to the Corporation's shareholders for voting which equals the number of votes which could be cast by such holder of the number of shares of the Corporation's Common Stock, par value \$.001 per share (the "Common Shares") into which such shares of Series I Class A Preferred Stock would be converted into pursuant to Part 5 hereof immediately prior to the record date of such vote. The outstanding Series I Class A Preferred Stock and the Common Shares of the Corporation shall vote together as a single class, except as otherwise expressly required by the GCL or Part 7 hereof. The Series I Class A Preferred Stock shall not have cumulative voting rights.

1.2 The Series I Class A Preferred Stock shall not give its holders any preemptive rights to acquire any other securities issued by the Corporation at any time in the future.

Part 2 - Liquidation Rights.

2.1 If the Corporation shall be voluntarily or involuntarily liquidated, dissolved or wound up at any time when any Series I Class A Preferred Stock shall be outstanding, the holders of the then outstanding Series I Class A Preferred Stock shall have a preference in distribution of the Corporation's property available for distribution to the holders of the Common Shares equal to \$1,000 consideration per outstanding share of Series I Class A Preferred Stock, together with an amount equal to all unpaid dividends accrued thereon, if any, to the date of payment of such distribution, whether or not declared by the Board; provided, however, that the merger of the Corporation with any corporation or corporations in which the Corporation is not the survivor, or the sale or transfer by the Corporation of all or substantially all of its property, or any reduction by at least seventy percent (70%) of the then issued and outstanding Common Shares of the Corporation, shall be deemed to be a liquidation of the Corporation within the meaning of any of the provisions of this Part 2.

2.2 Subject to the provisions of Part 6 hereof, all amounts to be paid as preferential distributions to the holders of Series I Class A Preferred Stock, as provided in this Part 2, shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any of the Corporation's property to the holders of Common Shares, whether now or hereafter

authorized, in connection with such liquidation, dissolution or winding up.

### Part 3 - Dividends.

3.1 Holders of record of Series I Class A Preferred Stock, out of funds legally available therefor and to the extent permitted by law, shall be entitled to receive dividends on their Series I Class A Preferred Stock, which dividends shall accrue at the rate per share of five percent (5%) per annum of consideration paid for each share of Series I Class A Preferred Stock (\$50.00 per share per year for each full year) commencing on the date of the issuance thereof, payable, at the option of the Corporation, (i) in cash, or (ii) by the issuance of that number of whole Common Shares computed by dividing the amount of the dividend by the market price applicable to such dividend.

3.2 For the purposes of this Part 3 and Part 4 hereof, "market price" means the average of the daily closing prices of Common Shares for a period of five (5) consecutive trading days ending on the date on which any dividend becomes payable or of any notice of redemption as the case may be. The closing price for each trading day shall be (i) for any period during which the Common Shares shall be listed for trading on a national securities exchange, the last reported bid price per share of Common Shares as reported by the primary stock exchange, or the Nasdaq Stock Market, if the Common Shares are quoted on the Nasdaq Stock Market, or (ii) if last sales price information is not available, the average closing bid price of Common Shares as reported by the Nasdaq Stock Market, or if not so listed or reported, then as reported by National Quotation Bureau, Incorporated, or (iii) in the event neither clause (i) nor (ii) is applicable, the average of the closing bid and asked prices as furnished by any member of the National Association of Securities Dealers, Inc., selected from time to time by the Corporation for that purpose.

3.3 Dividends on Series I Class A Preferred Stock shall be cumulative, and no dividends or other distributions shall be paid or declared and set aside for payment on the Common Shares until full cumulative dividends on all outstanding Series I Class A Preferred Stock shall have been paid or declared and set aside for payment.

3.4 Dividends shall be payable in arrears, at the rate of \$12.50 per share for each full calendar quarter on each February 28, May 31, August 31, and November 30 of each calendar year, to the holders of record of the Series I Class A Preferred Stock as they appear in the securities register of the Corporation on such record dates not more than sixty (60) nor less than ten (10) days preceding the payment date thereof, as shall be fixed by the Board; provided, however, that the initial dividend for the Series I Class A Preferred Stock shall accrue for the period commencing on the date of the issuance thereof to and including December 31, 1995.

3.5 If, in any quarter, insufficient funds are available to pay such dividends as are then due and payable with respect to the Series I Class A Preferred Stock and all other classes and series of the capital stock of the Corporation ranking in parity therewith (or such payment is otherwise prohibited by provisions of the GCL, such funds as are legally available to pay such dividends shall be paid or Common Shares will be issued as stock dividends to the holders of Series I Class A Preferred Stock and to the holders of any other series of Class A Preferred Stock then outstanding as provided in Part 6 hereof, in accordance with the rights of each



such holder, and the balance of accrued but undeclared and/or unpaid dividends, if any, shall be declared and paid on the next succeeding dividend date to the extent that funds are then legally available for such purpose.

#### Part 4 - Redemption.

4.1 At any time, and from time to time, on and after one hundred twenty (120) days from the date of the issuance of any Series I Class A Preferred Stock, if the average of the closing bid prices for the Common Shares for five (5) consecutive trading days shall be in excess of \$1.50, the Corporation may, at its sole option, but shall not be obligated to, redeem, in whole or in part, the then outstanding Series I Class A Preferred Stock at a price per share of U. S. \$1,000 each (the "Redemption Price") (such price to be adjusted proportionately in the event of any change of the Series I Class A Shares into a different number of Shares).

4.2 Thirty (30) days prior to any date stipulated by the Corporation for the redemption of Series I Class A Preferred Stock (the "Redemption Date"), written notice (the "Redemption Notice") shall be mailed to each holder of record on such notice date of the Series I Class A Preferred Stock. The Redemption Notice shall state: (i) the Redemption Date of such Shares, (ii) the number of Series I Class A Preferred Stock to be redeemed from the holder to whom the Redemption Notice is addressed, (iii) instructions for surrender to the Corporation, in the manner and at the place designated of a share certificate or share certificates representing the number of Series I Class A Preferred Stock to be redeemed from such holder, and (iv) instructions as to how to specify to the Corporation the number of Series I Class A Preferred Stock to be redeemed as provided in this Part 4, and the number of shares to be converted into Common Shares as provided in Part 5 hereof.

4.3 Upon receipt of the Redemption Notice, any Eligible Holder (as defined in Section 5.2 hereof) shall have the option, at its sole election, to specify what portion of its Series I Class A Preferred Stock called for redemption in the Redemption Notice shall be redeemed as provided in this Part 4 or converted into Common Shares in the manner provided in Part 5 hereof, except that, notwithstanding any provision of such Part 5 to the contrary, any Eligible Holder shall have the right to convert into Common Shares that number of Series I Class A Preferred Stock called for redemption in the Redemption Notice.

4.4 On or before the Redemption Date in respect of any Series I Class A Preferred Stock, each holder of such shares shall surrender the required certificate or certificates representing such shares to the Corporation in the manner and at the place designated in the Redemption Notice, and upon the Redemption Date, the Redemption Price for such shares shall be made payable, in the manner provided in Section 5.5 hereof, to the order of the person whose name appears on such certificate or certificates as the owner thereof, and each surrendered share certificate shall be canceled and retired. If a share certificate is surrendered and all the shares evidenced thereby are not being redeemed (as described below), the Corporation shall cause the Series I Class A Shares which are not being redeemed to be registered in the names of the persons whose names appear as the owners on the respective surrendered share certificates and deliver such certificate to such person.

4.5 On the Redemption Date in respect of any Series I Class A

Shares or prior thereto, the Corporation shall deposit with any bank or trust company having a capital and surplus of at least U. S. \$50,000,000, as a trust fund, a sum equal to the aggregate Redemption Price of all such shares called from redemption (less the aggregate Redemption Price for those Series I Class A Shares in respect of which the Corporation has received notice from the Eligible Holder thereof of its election to convert Series I Class A Shares in to Common Shares), with irrevocable instructions and authority to the bank or trust company to pay, on or after the Redemption Date, the Redemption Price to the respective holders upon the surrender of their share certificates. The deposit shall constitute full payment for the shares to their holders, and from and after the date of the deposit the redeemed share shall be deemed to be no longer outstanding, and holders thereof shall cease to be shareholders with respect to such shares and shall have no rights with respect thereto except the rights to receive from the bank or trust company payments of the Redemption price of the shares, without interest, upon surrender of their certificates thereof. Any funds so deposited and unclaimed at the end of one year following the Redemption Date shall be released or repaid to the Corporation, after which the former holders of shares called for redemption shall be entitled to receive payment of the Redemption Price in respect of their shares only from the Corporation.

#### Part 5 - Conversion.

5.1 For the purposes of conversion of the Series I Class A Preferred Stock shall be valued at \$1,000 per share ("Value"), and, if converted, the Series I Class A Preferred Stock shall be converted into such number of Common Shares (the "Conversion Shares") as is obtained by dividing the aggregate Value of the shares of Series I Class A Preferred Stock being so converted, together with all accrued but unpaid dividends thereon, by the "Average Stock Price" per share of the Conversion Shares (the "Conversion Price"), subject to adjustment pursuant to the provisions of this Part 5. For purposes of this Part 5, the "Average Stock Price" means the lesser of (x) seventy percent (70%) of the average daily closing bid prices of the Common Shares for the period of five (5) consecutive trading days immediately preceding the date of subscription by the Holder or (y) seventy percent (70%) of the daily average closing bid prices of Common Shares for the period of five (5) consecutive trading days immediately preceding the date of the conversion of the Series I Class A Preferred Stock in respect of which such Average Stock Price is determined. The closing price for each trading day shall be determined as provided in the last sentence of Section 3.2.

5.2 Any holder of Series I Class A Preferred Stock (an "Eligible Holder") may at any time commencing forty-five (45) days after the issuance of any Series I Class A Preferred Stock convert up to one hundred percent (100%) of his holdings of Series I Class A Preferred Stock in accordance with this Part 5.

5.3 The conversion right granted by Section 5.2 hereof may be exercised only by an Eligible Holder of Series I Class A Preferred Stock, in whole or in part, by the surrender of the share certificate or share certificates representing the Series I Class A Preferred Stock to be converted at the principal office of the Corporation (or at such other place as the Corporation may designate in a written notice sent to the holder by first class mail, postage prepaid, at its address shown on the books of the Corporation) against delivery of that number of whole Common Shares as shall be computed by dividing (1) the aggregate Value of the

Series I Class A Preferred Stock so surrendered for conversion plus any accrued but unpaid dividends thereon, if any, by (2) the Conversion Price in effect at the date of the conversion. At the time of conversion of a share of the Series I Class A Preferred Stock, the Corporation shall pay in cash to the holder thereof an amount equal to all unpaid dividends, if any, accrued thereon to the date of conversion, or, at the Corporation's option, issue that number of whole Common Shares which is equal to the product of dividing the amount of such unpaid dividends by the Average Stock Price whether or not declared by the Board. Each Series I Class A Preferred Stock share certificate surrendered for conversion shall be endorsed by its holder. In the event of any exercise of the conversion right of the Series I Class A Preferred Stock granted herein (i) share certificate representing the Common Shares purchased by virtue of such exercise shall be delivered to such holder within three (3) days of notice of conversion, and (ii) unless the Series I Class A Preferred Stock has been fully converted, a new share certificate representing the Series I Class A Preferred Stock not so converted, if any, shall also be delivered to such holder within three (3) days of notice of conversion. Any Eligible Holder may exercise its right to convert the Series I Class A Preferred Stock by telecopying an executed and completed Notice of Conversion to the Corporation, and within seventy-two (72) hours thereafter, delivering the original Notice of Conversion and the certificate representing the Series I Class A Preferred Stock to the Corporation by express courier. Each date on which a Notice of Conversion is telecopied to and received by the Corporation in accordance with the provisions hereof shall be deemed a conversion date. The Corporation will transmit the Common Shares certificates issuable upon conversion of any Series I Class A Preferred Stock (together with the certificates representing the Series I Class A Preferred Stock not so converted) to the Eligible Holder via express courier within three (3) business days after the conversion date if the Corporation has received the original Notice of Conversion and the Series I Class A Shares certificates being so converted by such date.

5.4 All Common Shares which may be issued upon conversion of Series I Class A Preferred Stock will, upon issuance, be duly issued, fully paid and nonassessable and free from all taxes, liens, and charges with respect to the issue thereof. At all times that any Series I Class A Preferred Stock is outstanding, the Corporation shall have authorized, and shall have reserved for the purpose of issuance upon such conversion, a sufficient number of Common Shares to provide for the conversion into Common Shares of all Series I Class A Preferred Stock then outstanding at the then effective Conversion Price. Without limiting the generality of the foregoing, if, at any time, the Conversion Price is decreased, the number of Common Shares authorized and reserved for issuance upon the conversion of the Series I Class A Preferred Stock shall be proportionately increased.

5.5 The number of Common Shares issued upon conversion of Series I Class A Preferred Stock and the Conversion Price shall be subject to adjustment from time to time upon the happening of certain events, as follows:

5.5.1 Change of Designation of the Common Shares or the rights, privileges, restrictions and conditions in respect of the Common Shares or division of the Common Shares into series. In the case of any amendment to the Articles to change the designation of the Common Shares or the rights, privileges, restrictions or conditions in respect of the

Common Shares or division of the Common Shares into series the rights of the holders of the Series I Class A Preferred Stock shall be adjusted so as to provide that upon conversion thereof, the holder of the Series I Class A Preferred Stock being converted shall procure, in lieu of each Common Share theretofore issuable upon such conversion, the kind and amount of shares, other securities, money and property receivable upon such designation, change or division by the holder of one Common Share issuable upon such conversion had conversion occurred immediately prior to such designation, change or division. The Series I Class A Preferred Stock shall be deemed thereafter to provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Part 5. The provisions of this subsection 5.5.1 shall apply in the same manner to successive reclassifications, changes, consolidations, and mergers.

5.5.2 If the Corporation, at any time while any of the Series I Class A Preferred Stock is outstanding, shall amend the Articles so as to change the Common Shares into a different number of shares, the Conversion Price shall be proportionately reduced, in case of such change increasing the number of Common Shares, as of the effective date of such increase, or if the Corporation shall take a record of holders of its Common Shares for the purpose of such increase, as of such record date, whichever is earlier, or the Conversion Price shall be proportionately increased, in the case of such change decreasing the number of Common Shares, as of the effective date of such decrease or, if the Corporation shall take a record of holders of its Common Stock for the purpose of such decrease, as of such record date, whichever is earlier.

5.5.3 If the Corporation, at any time while any of the Series I Class A Preferred Stock is outstanding, shall pay a dividend payable in Common Shares (except for any dividends of Common Shares payable pursuant to Part 3 hereof), the Conversion Price shall be adjusted, as of the date the Corporation shall take a record of the holders of its Common Shares for the purposes of receiving such dividend (or if no such record is taken, as of the date of payment of such dividend), to that price determined by multiplying the Conversion Price therefor in effect by a fraction (1) the numerator of which shall be the total number of Common Shares outstanding immediately prior to such dividend, and (2) the denominator of which shall be the total number of Common Shares outstanding immediately after such dividend (plus in the event that the Corporation paid cash for fractional shares, the number of additional shares which would have been outstanding had the Corporation issued fractional shares in connection with said dividend).

5.6 Whenever the Conversion Price shall be adjusted pursuant to Section 5.5 hereof, the Corporation shall make a certificate signed by its President, or a Vice President and by its Treasurer, Assistant Treasurer, Secretary or Assistant Secretary, setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated (including a description of the basis on which the Board of Directors made any determination hereunder), and the Conversion Price after giving effect to such adjustment, and shall cause copies of such certificates to be mailed (by first class mail, postage prepaid) to each holder of the Series I Class A Preferred Stock at its address shown on the books of the

Corporation. The Corporation shall make such certificate and mail it to each such holder promptly after each adjustment.

5.7 No fractional Common Shares shall be issued in connection with any conversion of Series I Class A Preferred Stock, but in lieu of such fractional shares, the Corporation shall make a cash payment therefor equal in amount to the product of the applicable fraction multiplied by the Conversion Price then in effect.

5.8 No Series I Class A Preferred Stock which has been converted into Common Shares shall be reissued by the Corporation; provided, however, that each such share shall be restored to the status of authorized but unissued Preferred Stock without designation as to series and may thereafter be issued as a series of Preferred Stock not designated as Series I Class A Preferred Stock.

Part 6 - Parity with Other Shares of Class A Preferred Shares.

6.1 If any cumulative dividends or accounts payable or return of capital in respect of Series I Class A Preferred Stock are not paid in full, the owners of all series of outstanding Preferred Stock shall participate rateably in respect of accumulated dividends and return of capital.

Part 7 - Amendment.

7.1 In addition to any requirement for a series vote pursuant to the GCL in respect of any amendment to the Corporation's Certificate of Incorporation that adversely affects the rights, privileges, restrictions and conditions of the Series I Class A Preferred Stock, the rights, privileges, restrictions and conditions attaching to the Series I Class A Preferred Stock may be amended by an amendment to the Corporation's Certificate of Incorporation so as to affect such adversely only if the Corporation has obtained the affirmative vote at a duly called and held series meeting of the holders of the Series I Class A Preferred Stock or written consent by the holders of a majority of the Series I Class A Preferred Stock then outstanding. Notwithstanding the above, the number of authorized shares of such class or classes of stock may be increased or decreased (but not below the number of shares thereof outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote thereon, voting as a single class, irrespective of this Section 7.1.

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DESIGNATION OF "PERMA-FIX ENVIRONMENTAL SERVICES, INC." FILED IN THIS OFFICE ON THE TWENTIETH DAY OF FEBRUARY, A.D. 1996, AT 10:45 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

/s/ Edward J. Freel

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Edward J. Freel,  
Secretary of State

Authentication: 7832562  
Date: 02/20/1996

960047351

CERTIFICATE OF DESIGNATIONS  
OF SERIES 2 CLASS B CONVERTIBLE PREFERRED STOCK  
OF  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Perma-Fix Environmental Services, Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify:

That, pursuant to authority conferred upon by the Board of Directors by the Corporation's Restated Certificate of Incorporation, as amended, and pursuant to the provisions of Section 151 of the Delaware Corporation Law, the Board of Directors of the Corporation has adopted resolutions, a copy of which is attached hereto, establishing and providing for the issuance of a series of Preferred Stock designated as Series 2 Class B Convertible Preferred Stock and has established and fixed the voting powers, designations, preferences and relative participating, optional and other special rights and qualifications, limitations and restrictions of such Series 2 Class B Convertible Preferred Stock as set forth in the attached resolutions.

Dated: February 16, 1996

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

By /s/ Louis F. Centofanti

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Dr. Louis F. Centofanti  
Chairman of the Board

ATTEST:

/s/ Mark A. Zwecker

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Mark A. Zwecker, Secretary

ISTE:\N-P\PESI\CERT-DES.S2B  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(the "Corporation")

RESOLUTION OF THE BOARD OF DIRECTORS

FIXING THE NUMBER AND DESIGNATING THE RIGHTS, PRIVILEGES,  
RESTRICTIONS AND CONDITIONS ATTACHING TO THE  
SERIES 2 CLASS B CONVERTIBLE PREFERRED STOCK

WHEREAS,

A. The Corporation's share capital includes Preferred Stock, par value \$.001 per share ("Preferred Stock"), which Preferred Stock may be issued in one or more series with the directors of the Corporation (the "Board") being entitled by resolution to fix the number of shares in each series and to designate the rights, designations, preferences, and relative, participating, optional or other special rights, privileges, restrictions and conditions attaching to the shares of each such series; and

B. It is in the best interests of the Corporation for the Board to create a new series from the Preferred Stock designated as the Series 2 Class B Convertible Preferred Stock, par value \$.001.

NOW, THEREFORE, BE IT RESOLVED, THAT:

The Series 2 Class B Convertible Preferred Stock, par value \$.001 (the "Series 2 Class B Preferred Stock") of the Corporation shall consist of 2,500 shares and no more and shall be designated as the Series 2 Class B Preferred Stock and in addition to the preferences, rights, privileges, restrictions and conditions attaching to all the Series 2 Class B Preferred Stock as a series, the rights, privileges, restrictions and conditions attaching to the Series 2 Class B Preferred Stock shall be as follows:

Part 1 - Voting and Preemptive Rights.

1.1 Except as otherwise provided herein, in the Corporation's Certificate of Incorporation (the "Articles") or the General Corporation Law of the State of Delaware (the "GCL"), each holder of Series 2 Class B Preferred Stock, by virtue of his ownership

thereof, shall be entitled to cast that number of votes per share thereof on each matter submitted to the Corporation's shareholders for voting which equals the number of votes which could be cast by such holder of the number of shares of the Corporation's Common Stock, par value \$.001 per share (the "Common Shares") into which such shares of Series 2 Class B Preferred Stock would be entitled to be converted into pursuant to Part 5 hereof on the record date of such vote. The outstanding Series 2 Class B Preferred Stock, the Common Shares of the Corporation and any other series of Preferred Stock of the Corporation having voting rights shall vote together as a single class, except as otherwise expressly required by the GCL or Part 7 hereof. The Series 2 Class B Preferred Stock shall not have cumulative voting rights.

1.2 The Series 2 Class B Preferred Stock shall not give its holders any preemptive rights to acquire any other securities issued by the Corporation at any time in the future.

## Part 2 - Liquidation Rights.

2.1 If the Corporation shall be voluntarily or involuntarily liquidated, dissolved or wound up at any time when any Series 2 Class B Preferred Stock shall be outstanding, the holders of the then outstanding Series 2 Class B Preferred Stock shall have a preference in distribution of the Corporation's property available for distribution to the holders of the Common Shares equal to \$1,000 consideration per outstanding share of Series 2 Class B Preferred Stock, together with an amount equal to all unpaid dividends accrued thereon, if any, to the date of payment of such distribution, whether or not declared by the Board; provided, however, that the merger of the Corporation with any corporation or corporations in which the Corporation is not the survivor, or the sale or transfer by the Corporation of all or substantially all of its property, or a reduction by at least seventy percent (70%) of the then issued and outstanding Common Shares of the Corporation, shall be deemed to be a liquidation of the Corporation within the meaning of any of the provisions of this Part 2.

2.2 Subject to the provisions of Part 6 hereof, all amounts to be paid as preferential distributions to the holders of Series 2 Class B Preferred Stock, as provided in this Part 2, shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any of the Corporation's property to the holders of Common Shares, whether now or hereafter authorized, in connection with such liquidation, dissolution or winding up.

2.3 After the payment to the holders of the shares of the Series 2 Class B Preferred Stock of the full preferential amounts provided for in this Part 2, the holders of the Series 2 Class B Preferred Stock as such shall have no right or claim to any of the remaining assets of the Corporation.

2.4 In the event that the assets of the Corporation available for distribution to the holders of shares of the Series 2 Class B Preferred Stock upon any dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, shall be insufficient to pay in full all amounts to which such holders are entitled pursuant to this Part 2, no such distribution shall be made on account of any shares of any other class or series of Preferred Stock ranking on a parity with the shares of this Series 2 Class B Preferred Stock upon such dissolution, liquidation or winding up unless proportionate distributive amounts shall be paid on account of the shares of this Series 2 Class B Preferred Stock



and shares of such other class or series ranking on a parity with the shares of this Series 2 Class B Preferred Stock, ratably, in proportion to the full distributable amounts for which holders of all such parity shares are respectively entitled upon such dissolution, liquidation or winding up.

### Part 3 - Dividends.

3.1 Holders of record of Series 2 Class B Preferred Stock, out of funds legally available therefor and to the extent permitted by law, shall be entitled to receive dividends on their Series 2 Class B Preferred Stock, which dividends shall accrue at the rate per share of five percent (5%) per annum of consideration paid for each share of Series 2 Class B Preferred Stock (\$50.00 per share per year for each full year) commencing on the date of the issuance thereof, payable, at the option of the Corporation, (i) in cash, or (ii) by the issuance of that number of whole Common Shares computed by dividing the amount of the dividend by the market price applicable to such dividend.

3.2 For the purposes of this Part 3 and Part 4 hereof, "market price" means the average of the daily closing prices of Common Shares for a period of five (5) consecutive trading days ending on the date on which any dividend becomes payable or of any notice of redemption as the case may be. The closing price for each trading day shall be (i) for any period during which the Common Shares shall be listed for trading on a national securities exchange, the last reported bid price per share of Common Shares as reported by the primary stock exchange, or the Nasdaq Stock Market, if the Common Shares are quoted on the Nasdaq Stock Market, or (ii) if last sales price information is not available, the average closing bid price of Common Shares as reported by the Nasdaq Stock Market, or if not so listed or reported, then as reported by National Quotation Bureau, Incorporated, or (iii) in the event neither clause (i) nor (ii) is applicable, the average of the closing bid and asked prices as furnished by any member of the National Association of Securities Dealers, Inc., selected from time to time by the Corporation for that purpose.

3.3 Dividends on Series 2 Class B Preferred Stock shall be cumulative, and no dividends or other distributions shall be paid or declared and set aside for payment on the Common Shares until full cumulative dividends on all outstanding Series 2 Class B Preferred Stock shall have been paid or declared and set aside for payment.

3.4 Dividends shall be payable in arrears, at the rate of \$12.50 per share for each full calendar quarter on each February 28, May 31, August 31, and November 30 of each calendar year, to the holders of record of the Series 2 Class B Preferred Stock as they appear in the securities register of the Corporation on such record dates not more than sixty (60) nor less than ten (10) days preceding the payment date thereof, as shall be fixed by the Board; provided, however, that the initial dividend for the Series 2 Class B Preferred Stock shall accrue for the period commencing on the date of the issuance thereof.

3.5 If, in any quarter, insufficient funds are available to pay such dividends as are then due and payable with respect to the Series 2 Class B Preferred Stock and all other classes and series of the capital stock of the Corporation ranking in parity therewith (or such payment is otherwise prohibited by provisions of the GCL, such funds as are legally available to pay such dividends shall be

paid or Common Shares will be issued as stock dividends to the holders of Series 2 Class B Preferred Stock and to the holders of any other series of Class B Preferred Stock then outstanding as provided in Part 6 hereof, in accordance with the rights of each such holder, and the balance of accrued but undeclared and/or unpaid dividends, if any, shall be declared and paid on the next succeeding dividend date to the extent that funds are then legally available for such purpose.

#### Part 4 - Redemption.

4.1 At any time, and from time to time, on and after one hundred twenty (120) days from the date of the issuance of any Series 2 Class B Preferred Stock, if the average of the closing bid prices for the Common Shares for five (5) consecutive trading days shall be in excess of \$1.50 per share, the Corporation may, at its sole option, but shall not be obligated to, redeem, in whole or in part, the then outstanding Series 2 Class B Preferred Stock at a price per share of U. S. \$1,000 each (the "Redemption Price") (such price to be adjusted proportionately in the event of any change of the Series 2 Class B Preferred Stock into a different number of shares of Series 2 Class B Preferred Stock).

4.2 Thirty (30) days prior to any date stipulated by the Corporation for the redemption of Series 2 Class B Preferred Stock (the "Redemption Date"), written notice (the "Redemption Notice") shall be mailed to each holder of record on such notice date of the Series 2 Class B Preferred Stock. The Redemption Notice shall state: (i) the Redemption Date of such shares, (ii) the number of Series 2 Class B Preferred Stock to be redeemed from the holder to whom the Redemption Notice is addressed, (iii) instructions for surrender to the Corporation, in the manner and at the place designated of a share certificate or share certificates representing the number of Series 2 Class B Preferred Stock to be redeemed from such holder, and (iv) instructions as to how to specify to the Corporation the number of Series 2 Class B Preferred Stock to be redeemed as provided in this Part 4, and the number of shares to be converted into Common Shares as provided in Part 5 hereof.

4.3 Upon receipt of the Redemption Notice, any Eligible Holder (as defined in Section 5.2 hereof) shall have the option, at its sole election, to specify what portion of its Series 2 Class B Preferred Stock called for redemption in the Redemption Notice shall be redeemed as provided in this Part 4 or converted into Common Shares in the manner provided in Part 5 hereof, except that, notwithstanding any provision of such Part 5 to the contrary, any Eligible Holder shall have the right to convert into Common Shares that number of Series 2 Class B Preferred Stock called for redemption in the Redemption Notice.

4.4 On or before the Redemption Date in respect of any Series 2 Class B Preferred Stock, each holder of such shares shall surrender the required certificate or certificates representing such shares to the Corporation in the manner and at the place designated in the Redemption Notice, and upon the Redemption Date, the Redemption Price for such shares shall be made payable, in the manner provided in Section 4.5 hereof, to the order of the person whose name appears on such certificate or certificates as the owner thereof, and each surrendered share certificate shall be canceled and retired. If a share certificate is surrendered and all the shares evidenced thereby are not being redeemed (as described below), the Corporation shall cause the Series 2 Class B Preferred Stock which are not being redeemed to be registered in the names of the persons

whose names appear as the owners on the respective surrendered share certificates and deliver such certificate to such person.

4.5 On the Redemption Date in respect of any Series 2 Class B Preferred Stock or prior thereto, the Corporation shall deposit with any bank or trust company having a capital and surplus of at least U. S. \$50,000,000, as a trust fund, a sum equal to the aggregate Redemption Price of all such shares called from redemption (less the aggregate Redemption Price for those Series 2 Class B Preferred Stock in respect of which the Corporation has received notice from the Eligible Holder thereof of its election to convert Series 2 Class B Preferred Stock in to Common Shares), with irrevocable instructions and authority to the bank or trust company to pay, on or after the Redemption Date, the Redemption Price to the respective holders upon the surrender of their share certificates. The deposit shall constitute full payment for the shares to their holders, and from and after the date of the deposit the redeemed share shall be deemed to be no longer outstanding, and holders thereof shall cease to be shareholders with respect to such shares and shall have no rights with respect thereto except the rights to receive from the bank or trust company payments of the Redemption price of the shares, without interest, upon surrender of their certificates thereof. Any funds so deposited and unclaimed at the end of one year following the Redemption Date shall be released or repaid to the Corporation, after which the former holders of shares called for redemption shall be entitled to receive payment of the Redemption Price in respect of their shares only from the Corporation.

#### Part 5 - Conversion.

5.1 For the purposes of conversion of the Series 2 Class B Preferred Stock shall be valued at \$1,000 per share ("Value"), and, if converted, the Series 2 Class B Preferred Stock shall be converted into such number of Common Shares (the "Conversion Shares") as is obtained by dividing the aggregate Value of the shares of Series 2 Class B Preferred Stock being so converted, together with all accrued but unpaid dividends thereon, by the "Average Stock Price" per share of the Conversion Shares (the "Conversion Price"), subject to adjustment pursuant to the provisions of this Part 5. For purposes of this Part 5, the "Average Stock Price" means the lesser of (x) seventy percent (70%) of the average daily closing bid prices of the Common Shares for a period of five (5) consecutive trading days immediately preceding the date of subscription by the Holder or (y) seventy percent (70%) of the average daily closing bid prices of Common Shares for the period of five (5) consecutive trading days immediately preceding the date of the conversion of the Series 2 Class B Preferred Stock in respect of which such Average Stock Price is determined. The closing price for each trading day shall be determined as provided in the last sentence of Section 3.2.

5.2 Any holder of Series 2 Class B Preferred Stock (an "Eligible Holder") may at any time commencing forty-five (45) days after the issuance of any Series 2 Class B Preferred Stock convert up to one hundred percent (100%) of his holdings of Series 2 Class B Preferred Stock in accordance with this Part 5.

5.3 The conversion right granted by Section 5.2 hereof may be exercised only by an Eligible Holder of Series 2 Class B Preferred Stock, in whole or in part, by the surrender of the share certificate or share certificates representing the Series 2 Class B Preferred Stock to be converted at the principal office of the

Corporation (or at such other place as the Corporation may designate in a written notice sent to the holder by first class mail, postage prepaid, at its address shown on the books of the Corporation) against delivery of that number of whole Common Shares as shall be computed by dividing (1) the aggregate Value of the Series 2 Class B Preferred Stock so surrendered for conversion plus any accrued but unpaid dividends thereon, if any, by (2) the Conversion Price in effect at the date of the conversion. At the time of conversion of a share of the Series 2 Class B Preferred Stock, the Corporation shall pay in cash to the holder thereof an amount equal to all unpaid dividends, if any, accrued thereon to the date of conversion, or, at the Corporation's option, issue that number of whole Common Shares which is equal to the product of dividing the amount of such unpaid dividends by the Average Stock Price whether or not declared by the Board. Each Series 2 Class B Preferred Stock share certificate surrendered for conversion shall be endorsed by its holder. In the event of any exercise of the conversion right of the Series 2 Class B Preferred Stock granted herein (i) share certificate representing the Common Shares purchased by virtue of such exercise shall be delivered to such holder within three (3) days of notice of conversion, and (ii) unless the Series 2 Class B Preferred Stock has been fully converted, a new share certificate representing the Series 2 Class B Preferred Stock not so converted, if any, shall also be delivered to such holder within three (3) days of notice of conversion. Any Eligible Holder may exercise its right to convert the Series 2 Class B Preferred Stock by telecopying an executed and completed Notice of Conversion to the Corporation, and within seventy-two (72) hours thereafter, delivering the original Notice of Conversion and the certificate representing the Series 2 Class B Preferred Stock to the Corporation by express courier. Each date on which a Notice of Conversion is telecopied to and received by the Corporation in accordance with the provisions hereof shall be deemed a conversion date. The Corporation will transmit the Common Shares certificates issuable upon conversion of any Series 2 Class B Preferred Stock (together with the certificates representing the Series 2 Class B Preferred Stock not so converted) to the Eligible Holder via express courier within three (3) business days after the conversion date if the Corporation has received the original Notice of Conversion and the Series 2 Class B Shares certificates being so converted by such date.

5.4 All Common Shares which may be issued upon conversion of Series 2 Class B Preferred Stock will, upon issuance, be duly issued, fully paid and nonassessable and free from all taxes, liens, and charges with respect to the issue thereof. At all times that any Series 2 Class B Preferred Stock is outstanding, the Corporation shall have authorized, and shall have reserved for the purpose of issuance upon such conversion, a sufficient number of Common Shares to provide for the conversion into Common Shares of all Series 2 Class B Preferred Stock then outstanding at the then effective Conversion Price. Without limiting the generality of the foregoing, if, at any time, the Conversion Price is decreased, the number of Common Shares authorized and reserved for issuance upon the conversion of the Series 2 Class B Preferred Stock shall be proportionately increased.

5.5 The number of Common Shares issued upon conversion of Series 2 Class B Preferred Stock and the Conversion Price shall be subject to adjustment from time to time upon the happening of certain events, as follows:

5.5.1 In the case of any amendment to the Articles to change the designation of the Common Shares or the rights,

privileges, restrictions or conditions in respect of the Common Shares or division of the Common Shares into series the rights of the holders of the Series 2 Class B Preferred Stock shall be adjusted so as to provide that upon conversion thereof, the holder of the Series 2 Class B Preferred Stock being converted shall procure, in lieu of each Common Share theretofore issuable upon such conversion, the kind and amount of shares, other securities, money and property receivable upon such designation, change or division by the holder of one Common Share issuable upon such conversion had conversion occurred immediately prior to such designation, change or division. The Series 2 Class B Preferred Stock shall be deemed thereafter to provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Part 5. The provisions of this subsection 5.5.1 shall apply in the same manner to successive reclassifications, changes, consolidations, and mergers.

5.5.2 If the Corporation, at any time while any of the Series 2 Class B Preferred Stock is outstanding, shall amend the Articles so as to change the Common Shares into a different number of shares, the Conversion Price shall be proportionately reduced, in case of such change increasing the number of Common Shares, as of the effective date of such increase, or if the Corporation shall take a record of holders of its Common Shares for the purpose of such increase, as of such record date, whichever is earlier, or the Conversion Price shall be proportionately increased, in the case of such change decreasing the number of Common Shares, as of the effective date of such decrease or, if the Corporation shall take a record of holders of its Common Stock for the purpose of such decrease, as of such record date, whichever is earlier.

5.5.3 If the Corporation, at any time while any of the Series 2 Class B Preferred Stock is outstanding, shall pay a dividend payable in Common Shares (except for any dividends of Common Shares payable pursuant to Part 3 hereof), the Conversion Price shall be adjusted, as of the date the Corporation shall take a record of the holders of its Common Shares for the purposes of receiving such dividend (or if no such record is taken, as of the date of payment of such dividend), to that price determined by multiplying the Conversion Price therefor in effect by a fraction (1) the numerator of which shall be the total number of Common Shares outstanding immediately prior to such dividend, and (2) the denominator of which shall be the total number of Common Shares outstanding immediately after such dividend (plus in the event that the Corporation paid cash for fractional shares, the number of additional shares which would have been outstanding had the Corporation issued fractional shares in connection with said dividend).

5.6 Whenever the Conversion Price shall be adjusted pursuant to Section 5.5 hereof, the Corporation shall make a certificate signed by its President, or a Vice President and by its Treasurer, Assistant Treasurer, Secretary or Assistant Secretary, setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated (including a description of the basis on which the Board of Directors made any determination hereunder), and the Conversion Price after giving effect to such adjustment, and shall cause copies of such certificates to be mailed (by first class

mail, postage prepaid) to each holder of the Series 2 Class B Preferred Stock at its address shown on the books of the Corporation. The Corporation shall make such certificate and mail it to each such holder promptly after each adjustment.

5.7 No fractional Common Shares shall be issued in connection with any conversion of Series 2 Class B Preferred Stock, but in lieu of such fractional shares, the Corporation shall make a cash payment therefor equal in amount to the product of the applicable fraction multiplied by the Conversion Price then in effect.

5.8 No Series 2 Class B Preferred Stock which has been converted into Common Shares shall be reissued by the Corporation; provided, however, that each such share shall be restored to the status of authorized but unissued Preferred Stock without designation as to series and may thereafter be issued as a series of Preferred Stock not designated as Series 2 Class B Preferred Stock.

Part 6 - Parity with Other Shares of Series 2 Class B Preferred Stock and Priority.

6.1 If any cumulative dividends or accounts payable or return of capital in respect of Series 2 Class B Preferred Stock are not paid in full, the owners of all series of outstanding Preferred Stock shall participate rateably in respect of accumulated dividends and return of capital.

6.2 For purposes of this resolution, any stock of any class or series of the Corporation shall be deemed to rank:

6.2.1 Prior or senior to the shares of this Series 2 Class B Preferred Stock either as to dividends or upon liquidation, if the holders of such class or classes shall be entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of this Series 2 Class B Preferred Stock;

6.2.2 On a parity with, or equal to, shares of this Series 2 Class B Preferred Stock, either as to dividends or upon liquidation, whether or not the dividend rates, dividend payment dates, or redemption or liquidation prices per share or sinking fund provisions, if any, are different from those of this Series 2 Class B Preferred Stock, if the holders of such stock are entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, in proportion to their respective dividend rates or liquidation prices, without preference or priority, one over the other, as between the holders of such stock and over the other, as between the holders of such stock and the holders of shares of this Series 2 Class B Preferred Stock; and,

6.2.3 Junior to shares of this Series 2 Class B Preferred Stock, either as to dividends or upon liquidation, if such class or series shall be Common Shares or if the holders of shares of this Series 2 Class B Preferred Stock shall be entitled to receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of such class or series.

Part 7 - Amendment.

7.1 In addition to any requirement for a series vote pursuant to the GCL in respect of any amendment to the Articles that adversely affects the rights, privileges, restrictions and conditions of the Series 2 Class B Preferred Stock, the rights, privileges, restrictions and conditions attaching to the Series 2 Class B Preferred Stock may be amended by an amendment to the Corporation's Certificate of Incorporation so as to affect such adversely only if the Corporation has obtained the affirmative vote at a duly called and held series meeting of the holders of the Series 2 Class B Preferred Stock or written consent by the holders of a majority of the Series 2 Class B Preferred Stock then outstanding. Notwithstanding the above, the number of authorized shares of such class or classes of stock may be increased or decreased (but not below the number of shares thereof outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote thereon, voting together as a single class, irrespective of this Section 7.1.

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State of Delaware  
Office of the Secretary of State

Page 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DESIGNATION OF "PERMA-FIX ENVIRONMENTAL SERVICES, INC." FILED IN THIS OFFICE ON THE NINETEENTH DAY OF JULY, A.D. 1996, AT 12:30 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

/s/ Edward J. Freel

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Edward J. Freel,  
Secretary of State

Authentication: 8033738

2249849 8100

Date: 07-19-96

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CERTIFICATE OF DESIGNATIONS  
OF SERIES 3 CLASS C CONVERTIBLE PREFERRED STOCK  
OF  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Perma-Fix Environmental Services, Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify:

That, pursuant to authority conferred upon by the Board of Directors by the Corporation's Restated Certificate of Incorporation, as amended, and pursuant to the provisions of Section 151 of the Delaware Corporation Law, the Board of Directors of the Corporation has adopted resolutions, a copy of which is attached hereto, establishing and providing for the issuance of a series of Preferred Stock designated as Series 3 Class C Convertible Preferred Stock and has established and fixed the voting powers, designations, preferences and relative participating, optional and other special rights and qualifications, limitations and restrictions of such Series 3 Class C Convertible Preferred Stock as set forth in the attached resolutions.

Dated: July 17, 1996

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

By /s/ Louis F. Centofanti

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Dr. Louis F. Centofanti  
Chairman of the Board

ATTEST:

/s/ Richard T. Kelecy

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Richard T. Kelecy, Secretary



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PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(the "Corporation")

RESOLUTION OF THE BOARD OF DIRECTORS

FIXING THE NUMBER AND DESIGNATING THE RIGHTS, PRIVILEGES,  
RESTRICTIONS AND CONDITIONS ATTACHING TO THE  
SERIES 3 CLASS C CONVERTIBLE PREFERRED STOCK

WHEREAS,

A. The Corporation's share capital includes Preferred Stock, par value \$.001 per share ("Preferred Stock"), which Preferred Stock may be issued in one or more series by the Board of Directors of the Corporation (the "Board") being entitled by resolution to fix the number of shares in each series and to designate the rights, designations, preferences, and relative, participating, optional or other special rights, privileges, restrictions and conditions attaching to the shares of each such series; and

B. It is in the best interests of the Corporation for the Board to create a new series from the Preferred Stock designated as the Series 3 Class C Convertible Preferred Stock, par value \$.001.

NOW, THEREFORE, BE IT RESOLVED, THAT:

The Series 3 Class C Convertible Preferred Stock, par value \$.001 (the "Series 3 Class C Preferred Stock") of the Corporation shall consist of 5,500 shares and no more and shall be designated as the Series 3 Class C Convertible Preferred Stock, and the preferences, rights, privileges, restrictions and conditions attaching to the Series 3 Class C Preferred Stock shall be as follows:

Part 1 - Voting and Preemptive Rights.

1.1 Voting Rights. Except as otherwise provided herein, in the Corporation's Certificate of Incorporation (the "Articles") or the General Corporation Law of the State of Delaware (the "GCL"), the holders of the Series 3 Class C Preferred Stock shall have no voting rights whatsoever. To the extent that under the GCL the vote of the holders of the Series 3 Class C Preferred Stock, voting separately as a class or series as applicable, is required to authorize a given action of the Corporation, the affirmative vote or consent of the holders of at least a majority of the shares of the Series 3 Class C Preferred Stock represented at a duly held meeting at which a quorum is present or by written consent of a majority of the shares of Series 3 Class C Preferred Stock (except as otherwise may be required under the GCL) shall constitute the approval of such action by the series. To the extent that under the GCL the holders of the Series 3 Class C Preferred Stock are entitled to vote on a matter with holders of Corporation's Common Stock and/or any other class or series of the Corporation's voting

securities, the Series 3 Class C Preferred Stock, the Corporation's Common Stock and all other classes or series of the Corporation's voting securities shall vote together as one class, with each share of Series 3 Class C Preferred Stock entitled to a number of votes equal to the number of shares of the Corporation's Common Stock into which it is then convertible using the record date for the taking of such vote of stockholders as the date as of which the Conversion Price (as defined in Section 4.2 hereof) is calculated and conversion is effected. Holders of the Series 3 Class C Preferred Stock shall be entitled to notice of (and copies of proxy materials and other information sent to stockholders) for all shareholder meetings or written consents with respect to which they would be entitled to vote, which notice would be provided pursuant to the Corporation's bylaws and applicable statutes.

1.2 No Preemptive Rights. The Series 3 Class C Preferred Stock shall not give its holders any preemptive rights to acquire any other securities issued by the Corporation at any time in the future.

## Part 2 - Liquidation Rights.

2.1 Liquidation. If the Corporation shall be voluntarily or involuntarily liquidated, dissolved or wound up at any time when any shares of the Series 3 Class C Preferred Stock shall be outstanding, the holders of the then outstanding Series 3 Class C Preferred Stock shall have a preference in distribution of the Corporation's property available for distribution to the holders of the Corporation's Common Stock equal to \$1,000 consideration per outstanding share of Series 3 Class C Preferred Stock, plus an amount equal to all unpaid dividends accrued thereon to the date of payment of such distribution ("Liquidation Preference"), whether or not declared by the Board.

2.2 Payment of Liquidation Preferences. Subject to the provisions of Part 6 hereof, all amounts to be paid as Liquidation Preference to the holders of Series 3 Class C Preferred Stock, as provided in this Part 2, shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any of the Corporation's property to the holders of the Corporation's Common Stock, whether now or hereafter authorized, in connection with such liquidation, dissolution or winding up.

2.3 No Rights After Payment. After the payment to the holders of the shares of the Series 3 Class C Preferred Stock of the full Liquidation Preference amounts provided for in this Part 2, the holders of the Series 3 Class C Preferred Stock as such shall have no right or claim to any of the remaining assets of the Corporation.

2.4 Assets Insufficient to Pay Full Liquidation Preference. In the event that the assets of the Corporation available for distribution to the holders of shares of the Series 3 Class C Preferred Stock upon any dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, shall be insufficient to pay in full all amounts to which such holders are entitled pursuant to this Part 2, no such distribution shall be made on account of any shares of any other class or series of Preferred Stock ranking on a parity with the shares of this Series 3 Class C Preferred Stock upon such dissolution, liquidation or winding up unless proportionate distributive amounts shall be paid on account of the shares of this Series 3 Class C Preferred Stock and shares of such other class or series ranking on a parity with

the shares of this Series 3 Class C Preferred Stock, ratably, in proportion to the full distributable amounts for which holders of all such parity shares are respectively entitled upon such dissolution, liquidation or winding up.

#### Part 3 - Dividends.

3.1 The holders of the Series 3 Class C Preferred Stock are entitled to receive if, when and as declared by the Board out of funds legally available therefor, cumulative dividends, payable in cash or Common Stock of the Corporation, par value \$.001 per share (the "Common Stock"), at the Corporation's election, at the rate of six percent (6%) per annum of the Liquidation Value of the Series 3 Class C Preferred Stock. The Liquidation Value of the Series 3 Class C Preferred Stock shall be \$1,000.00 per share (the "Dividend Rate"). The dividend is payable semi-annually within seven (7) business days after each of December 31 and June 30 of each year, commencing December 31, 1996 (each, a "Dividend Declaration Date"). Dividends shall be paid only with respect to shares of Series 3 Class C Preferred Stock actually issued and outstanding on a Dividend Declaration Date and to holders of record as of the Dividend Declaration Date. Dividends shall accrue from the first day of the semi-annual period in which such dividend may be payable, except with respect to the first semi-annual dividend which shall accrue from the date of issuance of the Series 3 Class C Preferred Stock. In the event that the Corporation elects to pay dividends in Common Stock of the Corporation, each holder of the Series 3 Class C Preferred Stock shall receive shares of Common Stock of the Corporation equal to the quotient of (i) the Dividend Rate in effect on the applicable Dividend Declaration Date dividend by (ii) the average of the closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five (5) trading days immediately prior to the Dividend Declaration Date (the "Stock Dividend Price"). Dividends on the Series 3 Class C Preferred Stock shall be cumulative, and no dividends or other distributions shall be paid or declared or set aside for payment on the Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 3 Class C Preferred Stock shall have been paid or declared and set aside for payment.

Part 4 - Conversion. The holders of the Series 3 Class C Preferred Stock shall have rights to convert the shares of Series 3 Class C Preferred Stock into shares of the Corporation's Common Stock, par value \$.001 per share ("Common Stock"), as follows (the "Conversion Rights"):

4.1 Right to Convert. The Series 3 Class C Preferred Stock shall be convertible into shares of Common Stock, as follows:

4.1.1 Up to one thousand eight hundred thirty-three (1,833) shares of Series 3 Class C Preferred Stock may be converted at the Conversion Price (as that term is defined in Section 4.2 below) at any time on or after October 1, 1996;

4.1.2 Up to one thousand eight hundred thirty-three (1,833) shares of Series 3 Class C Preferred Stock may be converted at the Conversion Price at any time on or after November 1, 1996; and,

4.1.3 Up to one thousand eight hundred thirty-four (1,834) shares of Series 3 Class C Preferred Stock

may be converted at the Conversion Price on or after December 1, 1996.

4.2 Conversion Price. As used herein, the term Conversion Price shall be the product of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five (5) trading days immediately preceding the date of the Conversion Notice referred to in Section 4.3 below multiplied by (ii) seventy-five percent (75%). Notwithstanding the foregoing, the Conversion Price shall not be (i) less than a minimum of \$.75 per share ("Minimum Conversion Price") or (ii) more than a maximum of \$1.50 per share ("Maximum Conversion Price"). If, after July 1, 1996, the Corporation sustains a net loss, on a consolidated basis, in each of two (2) consecutive quarters, as determined under generally accepted accounting principles, the Minimum Conversion Price shall be reduced \$.25 a share, but there shall be no change to, or reduction of, the Maximum Conversion Price. For the purpose of determining whether the Corporation has had a net loss in each of two (2) consecutive quarters, at no time shall a quarter that has already been considered in such determination be considered in any subsequent determination (as an example the third quarter of 1996 in which there is a net profit and the fourth quarter of 1996 in which there is a net loss shall be considered as two consecutive quarters, and, as a result, the fourth quarter of 1996 shall not be considered along with the first quarter of 1997 as two (2) consecutive quarters, but the first quarter of 1997 must be considered with the second quarter of 1997 for the purposes of such determination). For the purposes of this Section 4.2, a "quarter" is a three (3) month period ending on March 31, June 30, September 30, and December 31. If any of the outstanding shares of Series 3 Class C Preferred Stock are converted, in whole or in part, into Common Stock pursuant to the terms of this Part 4, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a) the aggregate Liquidation Value of the Series 3 Class C Preferred Stock so surrendered for conversion by (b) the Conversion Price in effect at the date of the conversion. At the time of conversion of shares of the Series 3 Class C Preferred Stock, the Corporation shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to the date of conversion, or, at the Corporation's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of shares of whole Common Stock which is equal to the product of dividing the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 3 Class C Preferred Stock so converted by the Conversion Price in effect at the date of conversion.

4.3 Mechanics of Conversion. Any holder of the Series 3 Class C Preferred Stock who wishes to exercise its Conversion Rights pursuant to Section 4.1 of this Part 4 must, if such shares are not being held in escrow by the Corporation's attorneys, surrender the certificate therefor at the principal executive office of the Corporation, and give written notice, which may be via facsimile transmission, to the Corporation at such office that it elects to convert the same (the "Conversion Notice"). In the event that the shares of Series 3 Class C Preferred Stock are being held in escrow by the Corporation's attorneys, no delivery of the certificates shall be required. No Conversion Notice with respect to any shares of Series 3 Class C Preferred Stock can be given prior to the time such shares of Series 3 Class C Preferred Stock are eligible for conversion in accordance with the provision of Section 4.1 above. Any such premature Conversion Notice shall automatically be null

and void. The Corporation shall, within five (5) business days after receipt of an appropriate and timely Conversion Notice (and certificate, if necessary), issue to such holder of Series 3 Class C Preferred Stock or its agent a certificate for the number of shares of Common Stock to which he shall be entitled; it being expressly agreed that until and unless the holder delivers written notice to the Corporation to the contrary, all shares of Common Stock issuable upon conversion of the Series 3 Class C Preferred Stock hereunder are to be delivered by the Corporation to a party designated in writing by the holder in the Conversion Notice for the account of the holder and such shall be deemed valid delivery to the holder of such shares of Common Stock. Such conversion shall be deemed to have been made only after both the certificate for the shares of Series 3 Class C Preferred Stock to be converted have been surrendered and the Conversion Notice is received by the Corporation (or in the event that no surrender of the Certificate is required, then only upon the receipt by the Corporation of the Conversion Notice) (the "Conversion Documents"), and the person or entity whose name is noted on the certificate evidencing such shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock at and after such time. In the event that the Conversion Notice is sent via facsimile transmission, the Corporation shall be deemed to have received such Conversion Notice on the first business day on which such facsimile Conversion Notice is actually received. If the Corporation fails to deliver to the holder or its agent the certificate representing the shares of Common Stock that the holder is entitled to receive as a result of such conversion within five (5) business days after receipt by the Corporation from the holder of an appropriate and timely Conversion Notice and certificates pursuant to the terms of this Section 4.3, the Corporation shall pay to the holder U.S. \$1,000 for each day that the Corporation is late in delivering such certificate to the holder or its agent.

4.4 Adjustments to Conversion Price for Stock Dividends and for Combinations or Subdivisions of Common Stock. If the Corporation at any time or from time to time while shares of Series 3 Class C Preferred Stock are issued and outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the Conversion Price in effect immediately before such event shall, concurrently with the effectiveness of such event, be proportionately decreased or increased, as appropriate. If the Corporation shall declare or pay, without consideration, any dividend on the Common Stock payable in any right to acquire Common stock for no consideration, then the Corporation shall be deemed to have made a dividend payable in Common Stock in an amount of shares equal to the maximum number of shares issuable upon exercise of such rights to acquire Common Stock.

4.5. Adjustments for Reclassification and Reorganization. If the Common Stock issuable upon conversion of the Series 3 Class C Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for in Section 4.4

hereof), the Conversion Price then in effect shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted so that the Series 3 Class C Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders of Series 3 Class C Preferred Stock would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of the Series 3 Class C Preferred Stock immediately before that change.

4.6 Common Stock Duly Issued. All Common Stock which may be issued upon conversion of Series 3 Class C Preferred Stock will, upon issuance, be duly issued, fully paid and nonassessable and free from all taxes, liens, and charges with respect to the issue thereof.

4.7 Notice of Adjustments. Upon the occurrence of each adjustment or readjustment of any Conversion Price pursuant to this Part 4, the Corporation, at its expense, within a reasonable period of time, shall compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Series 3 Class C Preferred Stock a notice setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment is based.

4.8 Issue Taxes. The Corporation shall pay any and all issue and other taxes that may be payable in respect of any issue or delivery of shares of Common Stock on conversion of the Series 3 Class C Preferred Stock pursuant thereto; provided, however, that the Corporation shall not be obligated to pay any transfer taxes resulting from any transfer requested by any holder of Series 3 Class C Preferred Stock in connection with such conversion.

4.9 Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series 3 Class C Preferred Stock, such number of its shares of Common Stock as shall, from time to time, be sufficient to effect the conversion of all outstanding shares of the Series 3 Class C Preferred stock, and, if at any time, the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series 3 Class C Preferred Stock, the Corporation will take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in reasonable efforts to obtain the requisite stockholder approval of any necessary amendment to its Certificate of Incorporation.

4.10 Fractional Shares. No fractional share shall be issued upon the conversion of any share or shares of Series 3 Class C Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series 3 Class C Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of a fractional share of Common Stock, such fractional share shall be rounded up to the nearest whole share.

4.11 Notices. Any notices required by the provisions of this Part 4 to be given to the holders of shares of Series 3 Class C

Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of the Corporation.

4.12 Business Day. As used herein, the term "business day" shall mean any day other than a Saturday, Sunday or a day when the federal and state banks located in the State of New York are required or permitted to close.

#### Part 5 - Redemption.

5.1 Redemption During First 180 Days. At any time, and from time to time, during the first one hundred eighty (180) days from the date of issuance of the Series 3 Class C Preferred Stock, the Corporation may, at its sole option, but shall not be obligated to, redeem, in whole or in part, the then outstanding Series 3 Class C Preferred Stock at a price per share of U. S. \$1,300.00 each ("First Six Months Redemption Price"). The Company may exercise such redemption by giving the holder of the Series 3 Class C Preferred Stock written notice of such redemption at any time during such 180-day period.

5.2 Other Rights of Redemption by the Corporation. At any time, and from time to time, after one hundred eighty (180) days from the date of the issuance of any Series 3 Class C Preferred Stock, if the average of the closing bid price of the Common Stock for ten (10) consecutive days shall be in excess of \$2.50 per share, the Corporation may, at its sole option, but shall not be obligated to, redeem, in whole or in part, the then outstanding Series 3 Class C Preferred Stock at a price per share of U. S. \$1,000 each (the "Redemption Price") (such price to be adjusted proportionately in the event of any change of the Series 3 Class C Preferred Stock into a different number of shares of Series 3 Class C Preferred Stock).

5.3 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Corporation for the redemption of Series 3 Class C Preferred Stock (the "Redemption Date"), written notice (the "Redemption Notice") shall be mailed to each holder of record on such notice date of the Series 3 Class C Preferred Stock. The Redemption Notice shall state: (i) the Redemption Date of such shares, (ii) the number of Series 3 Class C Preferred Stock to be redeemed from the holder to whom the Redemption Notice is addressed, (iii) instructions for surrender to the Corporation, in the manner and at the place designated, of a share certificate or share certificates representing the number of Series 3 Class C Preferred Stock to be redeemed from such holder, and (iv) instructions as to how to specify to the Corporation the number of Series 3 Class C Preferred Stock to be redeemed as provided in this Part 5 and, if the Redemption Notice is mailed to the Holder after the first one hundred eighty (180) days from the date of issuance of the Series 3 Class C Preferred Stock, the number of shares to be converted into Common Stock as provided in Part 4 hereof.

5.4 Rights of Conversion Upon Redemption. If the redemption occurs pursuant to Section 5.1 hereof, the Holder of the Series 3 Class C Preferred Stock shall not have the right to convert those outstanding shares of Series 3 Class C Preferred Stock that the Company is redeeming after receipt of the Redemption Notice. If the redemption occurs pursuant to Section 5.2 hereof, then, upon receipt of the Redemption Notice, any holder of Series 3 Class C Preferred Stock shall have the option, at its sole election, to specify what portion of its Series 3 Class C Preferred Stock called

for redemption in the Redemption Notice shall be redeemed as provided in this Part 5 or converted into Common Stock in the manner provided in Part 4 hereof, except that, notwithstanding any provision of such Part 4 to the contrary, such holder shall have the right to convert into Common Stock that number of Series 3 Class C Preferred Stock called for redemption in the Redemption Notice.

5.5 Surrender of Certificates. On or before the Redemption Date in respect of any Series 3 Class C Preferred Stock, each holder of such shares shall surrender the required certificate or certificates representing such shares to the Corporation in the manner and at the place designated in the Redemption Notice, and upon the Redemption Date, the Redemption Price for such shares shall be made payable, in the manner provided in Section 5.5 hereof, to the order of the person whose name appears on such certificate or certificates as the owner thereof, and each surrendered share certificate shall be canceled and retired. If a share certificate is surrendered and all the shares evidenced thereby are not being redeemed (as described below), the Corporation shall cause the Series 3 Class C Preferred Stock which are not being redeemed to be registered in the names of the persons or entity whose names appear as the owners on the respective surrendered share certificates and deliver such certificate to such person.

5.6 Payment. On the Redemption Date in respect of any Series 3 Class C Preferred Stock or prior thereto, the Corporation shall deposit with any bank or trust company having a capital and surplus of at least U. S. \$50,000,000, as a trust fund, a sum equal to the aggregate First Six Months Redemption Price or the Redemption Price, whichever is applicable, of all such shares called from redemption (less the aggregate Redemption Price for those Series 3 Class C Preferred Stock in respect of which the Corporation has received notice from the holder thereof of its election to convert Series 3 Class C Preferred Stock into Common Stock), with irrevocable instructions and authority to the bank or trust company to pay, on or after the Redemption Date, the First Six Months Redemption Price or the Redemption Price, whichever is applicable, to the respective holders upon the surrender of their share certificates. The deposit shall constitute full payment for the shares to their holders, and from and after the date of the deposit the redeemed shares shall be deemed to be no longer outstanding, and holders thereof shall cease to be shareholders with respect to such shares and shall have no rights with respect thereto except the rights to receive from the bank or trust company payments of the First Six Months Redemption Price or the Redemption Price, whichever is applicable, of the shares, without interest, upon surrender of their certificates thereof. Any funds so deposited and unclaimed at the end of one year following the Redemption Date shall be released or repaid to the Corporation, after which the former holders of shares called for redemption shall be entitled to receive payment of the First Six Months Redemption Price or the Redemption Price, whichever is applicable, in respect of their shares only from the Corporation.

Part 6 - Parity with Other Shares of Series 3 Class C Preferred Stock and Priority.

6.1 Rateable Participation. If any cumulative dividends or return of capital in respect of Series 3 Class C Preferred Stock are not paid in full, the owners of all series of outstanding Preferred Stock shall participate rateably in respect of accumulated dividends and return of capital.



6.2 Ranking. For purposes of this resolution, any stock of any class or series of the Corporation shall be deemed to rank:

6.2.1 Prior or senior to the shares of this Series 3 Class C Preferred Stock either as to dividends or upon liquidation, if the holders of such class or classes shall be entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of this Series 3 Class C Preferred Stock;

6.2.2 On a parity with, or equal to, shares of this Series 3 Class C Preferred Stock, either as to dividends or upon liquidation, whether or not the dividend rates, dividend payment dates, or redemption or liquidation prices per share or sinking fund provisions, if any, are different from those of this Series 3 Class C Preferred Stock, if the holders of such stock are entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, in proportion to their respective dividend rates or liquidation prices, without preference or priority, one over the other, as between the holders of such stock and over the other, as between the holders of such stock and the holders of shares of this Series 3 Class C Preferred Stock; and,

6.2.3 Junior to shares of this Series 3 Class C Preferred Stock, either as to dividends or upon liquidation, if such class or series shall be Common Stock or if the holders of shares of this Series 3 Class C Preferred Stock shall be entitled to receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of such class or series.

#### Part 7 - Amendment and Reissue.

7.1 Amendment. If any proposed amendment to the Corporation's Certificate of Incorporation would alter or change the powers, preferences or special rights of the Series 3 Class C Preferred Stock so as to affect such adversely, then the Corporation must obtain the affirmative vote of such amendment to the Certificate of Incorporation at a duly called and held series meeting of the holders of the Series 3 Class C Preferred Stock or written consent by the holders of a majority of the Series 3 Class C Preferred Stock then outstanding. Notwithstanding the above, the number of authorized shares of any class or classes of stock may be increased or decreased (but not below the number of shares thereof outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote thereon, voting together as a single class, irrespective of this Section 7.1 or the requirements of Section 242 of the GCL.

7.2 Authorized. Any shares of Series 3 Class C Preferred Stock acquired by the Corporation by reason of purchase, conversion, redemption or otherwise shall be retired and shall become authorized but unissued shares of Preferred Stock, which may be reissued as part of a new series of Preferred Stock hereafter created.

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DESIGNATION OF "PERMA-FIX ENVIRONMENTAL SERVICES, INC." FILED IN THIS OFFICE ON THE ELEVENTH DAY OF JUNE, A.D. 1997, AT 11 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

/s/ Edward J. Freel

\_\_\_\_\_  
Edward J. Freel,  
Secretary of State

Authentication: 8505805

2249849 8100

Date: 06-11-97

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CERTIFICATE OF DESIGNATIONS  
OF SERIES 4 CLASS D CONVERTIBLE PREFERRED STOCK  
OF  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Perma-Fix Environmental Services, Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify:

That, pursuant to authority conferred upon by the Board of Directors by the Corporation's Restated Certificate of Incorporation, as amended, and pursuant to the provisions of Section 151 of the Delaware Corporation Law, the Board of Directors of the Corporation has adopted resolutions, a copy of which is attached hereto, establishing and providing for the issuance of a series of Preferred Stock designated as Series 4 Class D Convertible Preferred Stock and has established and fixed the voting powers, designations, preferences and relative participating, optional and other special rights and qualifications, limitations and restrictions of such Series 4 Class D Convertible Preferred Stock as set forth in the attached resolutions.

Dated: June 9, 1997

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

/s/ Louis F. Centofanti

By \_\_\_\_\_

Dr. Louis F. Centofanti  
Chairman of the Board

ATTEST:

/s/ Richard T. Kelecy

Richard T. Kelecy, Secretary

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(the "Corporation")

RESOLUTION OF THE BOARD OF DIRECTORS

FIXING THE NUMBER AND DESIGNATING THE RIGHTS, PRIVILEGES,  
RESTRICTIONS AND CONDITIONS ATTACHING TO THE  
SERIES 4 CLASS C CONVERTIBLE PREFERRED STOCK

WHEREAS, the Corporation's capital includes preferred stock, par value \$.001 per share ("Preferred Stock"), which Preferred Stock may be issued in one or more series by resolutions adopted by the directors, and with the directors being entitled by resolution to fix the number of shares in each series and to designate the rights, designations, preferences and relative, participating, optional or other special rights and privileges, restrictions and conditions attaching to the shares of each such series;

WHEREAS, it is in the best interests of the Corporation for the Board to create a new series from the Preferred Stock designated as the Series 4 Class D Convertible Preferred Stock, par value \$.001 per share ("Series 4 Class D Preferred Stock");

NOW, THEREFORE, BE IT RESOLVED, that the Series 4 Class D Convertible Preferred Stock, par value \$.001 (the "Series 4 Class D Preferred Stock") of the Corporation shall consist of two thousand five hundred (2,500) shares and no more and shall be designated as the Series 4 Class D Convertible Preferred Stock, and the preferences, rights, privileges, restrictions and conditions attaching to the Series 4 Class D Preferred Stock shall be as follows:

Part 1 - Voting and Preemptive Rights.

1.1 Voting Rights. Except as otherwise provided in Part 7 hereof or under the General Corporation Law of the State of Delaware (the "GCL"), the holders of the Series 4 Class D Preferred Stock shall have no voting rights whatsoever. To the extent that under Part 7 hereof or the GCL the vote of the holders of the Series 4 Class D Preferred Stock, voting separately as a class or series as applicable, is required to authorize a given action of the Corporation, the affirmative vote or consent of the holders of at least a majority of the shares of the Series 4 Class D Preferred Stock represented at a duly held meeting at which a quorum is present or by written consent of a majority of the shares of Series 4 Class D Preferred Stock (except as otherwise may be required under the GCL) shall constitute the approval of such action by the series. To the extent that under the GCL or Part 7 hereof, the holders of the Series 4 Class D Preferred Stock are entitled to vote on a matter, each share of the Series 4 Class D Preferred Stock shall be entitled one (1) vote for each outstanding share of Series 4 Class D Preferred Stock. Holders of the Series 4 Class D Preferred Stock shall be entitled to notice of (and copies of proxy materials and other information sent to stockholders) for all shareholder meetings or written consents with respect to which they

would be entitled to vote, which notice would be provided pursuant to the Corporation's bylaws and applicable statutes.

1.2 No Preemptive Rights. The Series 4 Class D Preferred Stock shall not give its holders any preemptive rights to acquire any other securities issued by the Corporation at any time in the future.

## Part 2 - Liquidation Rights.

2.1 Liquidation. If the Corporation shall be voluntarily or involuntarily liquidated, dissolved or wound up at any time when any shares of the Series 4 Class D Preferred Stock shall be outstanding, the holders of the then outstanding Series 4 Class D Preferred Stock shall have a preference in distribution of the Corporation's property available for distribution to the holders of the Corporation's Common Stock equal to \$1,000 consideration per outstanding share of Series 4 Class D Preferred Stock, plus an amount equal to all unpaid dividends accrued thereon to the date of payment of such distribution ("Liquidation Preference"), whether or not declared by the Board.

2.2 Payment of Liquidation Preferences. Subject to the provisions of Part 6 hereof, all amounts to be paid as Liquidation Preference to the holders of Series 4 Class D Preferred Stock, as provided in this Part 2, shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any of the Corporation's property to the holders of the Corporation's Common Stock, whether now or hereafter authorized, in connection with such liquidation, dissolution or winding up.

2.3 No Rights After Payment. After the payment to the holders of the shares of the Series 4 Class D Preferred Stock of the full Liquidation Preference amounts provided for in this Part 2, the holders of the Series 4 Class D Preferred Stock as such shall have no right or claim to any of the remaining assets of the Corporation.

2.4 Assets Insufficient to Pay Full Liquidation Preference. In the event that the assets of the Corporation available for distribution to the holders of shares of the Series 4 Class D Preferred Stock upon any dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, shall be insufficient to pay in full all amounts to which such holders are entitled pursuant to this Part 2, no such distribution shall be made on account of any shares of any other class or series of Preferred Stock ranking on a parity with the shares of this Series 4 Class D Preferred Stock upon such dissolution, liquidation or winding up unless proportionate distributive amounts shall be paid on account of the shares of this Series 4 Class D Preferred Stock and shares of such other class or series ranking on a parity with the shares of this Series 4 Class D Preferred Stock, ratably, in proportion to the full distributable amounts for which holders of all such parity shares are respectively entitled upon such dissolution, liquidation or winding up.

## Part 3 - Dividends.

3.1 The holders of the Series 4 Class D Preferred Stock are entitled to receive if, when and as declared by the Board out of funds legally available therefor, cumulative dividends, payable in cash or Common Stock of the Corporation, par value \$.001 per share (the "Common Stock"), or any combination thereof, at the

Corporation's election, at the rate of four percent (4%) per annum of the Liquidation Value (as defined below) of each issued and outstanding share of Series 4 Class D Preferred Stock (the "Dividend Rate"). The Liquidation Value of the Series 4 Class D Preferred Stock shall be \$1,000 per outstanding share of the Series 4 Class D Preferred Stock (the "Liquidation Value"). The dividend is payable semi-annually within seven (7) business days after each of December 31 and June 30 of each year, commencing December 31, 1997 (each, a "Dividend Declaration Date"). Dividends shall be paid only with respect to shares of Series 4 Class D Preferred Stock actually issued and outstanding on a Dividend Declaration Date and to holders of record of the Series 4 Class D Preferred Stock as of the Dividend Declaration Date. Dividends shall accrue from the first day of the semi-annual period in which such dividend may be payable, except with respect to the first semi-annual dividend which shall accrue from the date of issuance of the Series 4 Class D Preferred Stock. In the event that the Corporation elects to pay the accrued dividends due as of a Dividend Declaration Date on an outstanding share of the Series 4 Class D Preferred Stock in Common Stock of the Corporation, the holder of such share shall receive that number of shares of Common Stock of the Corporation equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Corporation's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing sale price if listed on a national securities exchange, for the five (5) trading days immediately prior to the Dividend Declaration Date (the "Stock Dividend Price"), times (b) a fraction, the numerator of which is the number of days elapsed during the period for which the dividend is to be paid, and the denominator of which is 365. Dividends on the Series 4 Class D Preferred Stock shall be cumulative, and no dividends or other distributions shall be paid or declared or set aside for payment on the Corporation's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 4 Class D Preferred Stock shall have been paid or declared and set aside for payment.

Part 4 - Conversion. The holders of the Series 4 Class D Preferred Stock shall have rights to convert the shares of Series 4 Class D Preferred Stock into shares of the Corporation's Common Stock, par value \$.001 per share ("Common Stock"), as follows (the "Conversion Rights"):

4.1 Right to Convert. The Series 4 Class D Preferred Stock shall be convertible into shares of Common Stock, as follows:

4.1.1 Up to one thousand two hundred fifty (1,250) shares of Series 4 Class D Preferred Stock may be converted at the Conversion Price (as that term is defined in Section 4.2 below) at any time on or after October 5, 1997; and,

4.1.2 Up to an additional one thousand two hundred fifty (1,250) shares of Series 4 Class D Preferred Stock may be converted at the Conversion Price at any time on or after November 5, 1997.

4.2 Conversion Price. Subject to the terms hereof, as used herein, the term Conversion Price per outstanding share of Series 4 Class D Preferred Stock shall be the product of the lesser of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the

closing sale price if listed on a national securities exchange, for the five (5) trading days immediately preceding the date of the Conversion Notice referred to in Section 4.3 below multiplied by eighty percent (80%) or (ii) U.S. \$1.6875. Notwithstanding the foregoing, the Conversion Price shall not be less than a minimum of \$.75 per share ("Minimum Conversion Price"), which Minimum Conversion Price shall be eliminated from and after September 6, 1998. If any of the outstanding shares of Series 4 Class D Preferred Stock are converted, in whole or in part, into Common Stock pursuant to the terms of this Part 4, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a) the aggregate Liquidation Value of the Series 4 Class D Preferred Stock so surrendered for conversion by (b) the Conversion Price in effect at the date of the conversion. At the time of conversion of shares of the Series 4 Class D Preferred Stock, the Corporation shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to the date of conversion, or, at the Corporation's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of shares of whole Common Stock which is equal to the quotient of the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 4 Class D Preferred Stock so converted divided by the Stock Dividend Price, as defined in Section 3.1 hereof, in effect at the date of conversion.

4.3 Mechanics of Conversion. Any holder of the Series 4 Class D Preferred Stock who wishes to exercise its Conversion Rights pursuant to Section 4.1 of this Part 4 must, if such shares are not being held in escrow by the Corporation's attorneys, surrender the certificate therefor at the principal executive office of the Corporation, and give written notice, which may be via facsimile transmission, to the Corporation at such office that it elects to convert the same (the "Conversion Notice"). In the event that the shares of Series 4 Class D Preferred Stock are being held in escrow by the Corporation's attorneys, no delivery of the certificates shall be required. No Conversion Notice with respect to any shares of Series 4 Class D Preferred Stock can be given prior to the time such shares of Series 4 Class D Preferred Stock are eligible for conversion in accordance with the provision of Section 4.1 above, except as provided in Section 4.4. Any such premature Conversion Notice shall automatically be null and void. The Corporation shall, within five (5) business days after receipt of an appropriate and timely Conversion Notice (and certificate, if necessary), issue to such holder of Series 4 Class D Preferred Stock or its agent a certificate for the number of shares of Common Stock to which he shall be entitled; it being expressly agreed that until and unless the holder delivers written notice to the Corporation to the contrary, all shares of Common Stock issuable upon conversion of the Series 4 Class D Preferred Stock hereunder are to be delivered by the Corporation to a party designated in writing by the holder in the Conversion Notice for the account of the holder and such shall be deemed valid delivery to the holder of such shares of Common Stock. Such conversion shall be deemed to have been made only after both the certificate for the shares of Series 4 Class D Preferred Stock to be converted have been surrendered and the Conversion Notice is received by the Corporation (or in the event that no surrender of the Certificate is required, then only upon the receipt by the Corporation of the Conversion Notice) (the "Conversion

Documents"), and the person or entity whose name is noted on the certificate evidencing such shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock at and after such time. In the event that the Conversion Notice is sent via facsimile transmission, the Corporation shall be deemed to have received such Conversion Notice on the first business day on which such facsimile Conversion Notice is actually received. If the Corporation fails to deliver to the holder or its agent the certificate representing the shares of Common Stock that the holder is entitled to receive as a result of such conversion within seven (7) business days after receipt by the Corporation from the holder of an appropriate and timely Conversion Notice and certificates pursuant to the terms of this Section 4.3 ("Seven (7) Business Day Period"), then, upon the written demand of RBB Bank Aktiengesellschaft ("RBB Bank"), the holder of the Series 4 Class D Preferred Stock, for payment of the penalty described below in this Section 4.3, which demand must be received by the Corporation no later than ten (10) calendar days after the expiration of such Seven (7) Business Day Period, the Corporation shall pay to RBB Bank the following penalty for each business day after the Seven (7) Business Day Period until the Corporation delivers to the holder or its agent the certificate representing the shares of Common Stock that the holder is entitled to receive as a result of such conversion: business day eight (8) - U.S. \$1,000; business day nine (9) - U.S. \$2,000, and each business day thereafter an amount equal to the penalty due on the immediately preceding business day times two (2) until the Corporation delivers to the holder or its agent the certificate representing the shares of Common Stock that the holder is entitled to receive as a result of such conversion.

4.4 Merger or Consolidation. In case of either (a) any merger or consolidation to which the Corporation is a party (collectively, the "Merger"), other than a Merger in which the Corporation is the surviving or continuing corporation, or (b) any sale or conveyance to another corporation of all, or substantially all, of the assets of the Corporation (collectively, the "Sale"), and such Merger or Sale becomes effective (x) while any shares of Series 4 Class D Preferred Stock are outstanding and prior to the date that the Corporation's Registration Statement covering up to 1,482,000 shares of Common Stock issuable upon the conversion of the Series 4 Class D Preferred Stock is declared effective by the U. S. Securities and Exchange Commission or (y) prior to the end of the restriction periods in Section 4.1, then, in such event, the Corporation or such successor corporation, as the case may be, shall make appropriate provision so that the holder of each share of Series 4 Class D Preferred Stock then outstanding shall have the right to convert such share of Series 4 Class D Preferred Stock into the kind and amount of shares of stock or other securities and property receivable upon such Merger or Sale by a holder of the number of shares of Common Stock into which such shares of Series 4 Class D Preferred Stock could have been converted into immediately prior to such Merger or Sale, subject to adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Part 4.

4.4 Adjustments to Conversion Price for Stock Dividends and for Combinations or Subdivisions of Common Stock. If the

Corporation at any time or from time to time while shares of Series 4 Class D Preferred Stock are issued and outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the Conversion Price in effect immediately before such event shall, concurrently with the effectiveness of such event, be proportionately decreased or increased, as appropriate.

4.5. Adjustments for Reclassification and Reorganization. If the Common Stock issuable upon conversion of the Series 4 Class D Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for in Section 4.4 hereof), the Conversion Price then in effect shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted so that the Series 4 Class D Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders of Series 4 Class D Preferred Stock would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of the Series 4 Class D Preferred Stock immediately before that change.

4.6 Common Stock Duly Issued. All Common Stock which may be issued upon conversion of Series 4 Class D Preferred Stock will, upon issuance, be duly issued, fully paid and nonassessable and free from all taxes, liens, and charges with respect to the issue thereof.

4.7 Notice of Adjustments. Upon the occurrence of each adjustment or readjustment of any Conversion Price pursuant to this Part 4, the Corporation, at its expense, within a reasonable period of time, shall compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Series 4 Class D Preferred Stock a notice setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment is based.

4.8 Issue Taxes. The Corporation shall pay any and all issue and other taxes that may be payable in respect of any issue or delivery of shares of Common Stock on conversion of the Series 4 Class D Preferred Stock pursuant thereto; provided, however, that the Corporation shall not be obligated to pay any transfer taxes resulting from any transfer requested by any holder of Series 4 Class D Preferred Stock in connection with such conversion.

4.9 Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series 4 Class D Preferred Stock, such number of its shares of Common Stock as shall, from time to time, be



sufficient to effect the conversion of all outstanding shares of the Series 4 Class D Preferred stock, and, if at any time, the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series 4 Class D Preferred Stock, the Corporation will take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in reasonable efforts to obtain the requisite stockholder approval of any necessary amendment to its Certificate of Incorporation.

4.10 Fractional Shares. No fractional shares shall be issued upon the conversion of any share or shares of Series 4 Class D Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series 4 Class D Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of a fractional share of Common Stock, such fractional share shall be rounded up to the nearest whole share.

4.11 Notices. Any notices required by the provisions of this Part 4 to be given to the holders of shares of Series 4 Class D Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of the Corporation.

4.12 Business Day. As used herein, the term "business day" shall mean any day other than a Saturday, Sunday or a day when the federal and state banks located in the State of New York are required or is permitted to close.

## Part 5 - Redemption.

5.1 Redemption at Corporation's Option. Except as otherwise provided in this Section 5.1, at any time, and from time to time, after the expiration of one (1) year from the date of the first issuance of the Series 4 Class D Preferred Stock, the Corporation may, at its sole option, but shall not be obligated to, redeem, in whole or in part, at any time, and from time to time, the then outstanding Series 4 Class D Preferred Stock at the following cash redemption prices per share (the "Redemption Price") if redeemed during the following periods: (a) within four (4) years from the date of the first issuance of Series 4 Class D Preferred Stock - \$1,300 per share, if at any time during such four (4) year period the average of the closing bid price of the Common Stock for ten (10) consecutive trading days shall be in excess of Four U.S. Dollars (\$4.00) per share, and (b) after four (4) years from the date of the first issuance of Series 4 Class D Preferred Stock - \$1,000 per share.

5.3 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Corporation for the redemption of Series 4 Class D Preferred Stock (the "Redemption Date"), written notice (the "Redemption Notice") shall be mailed to each holder of record on such notice date of the Series 4 Class D Preferred Stock. The Redemption Notice shall state: (i) the

Redemption Date of such shares, (ii) the number of Series 4 Class D Preferred Stock to be redeemed from the holder to whom the Redemption Notice is addressed, (iii) instructions for surrender to the Corporation, in the manner and at the place designated, of a share certificate or share certificates representing the number of Series 4 Class D Preferred Stock to be redeemed from such holder, and (iv) instructions as to how to specify to the Corporation the number of Series 4 Class D Preferred Stock to be redeemed as provided in this Part 5 and, if the Redemption Notice is mailed to the Holder after the first one hundred eighty (180) days from the date of issuance of the Series 4 Class D Preferred Stock, the number of shares to be converted into Common Stock as provided in Part 4 hereof.

5.4 Rights of Conversion Upon Redemption. If the redemption occurs after the first one hundred eighty (180) days after the first issuance of Series 4 Class D Preferred Stock, then, upon receipt of the Redemption Notice, any holder of Series 4 Class D Preferred Stock shall have the option, at its sole election, to specify what portion of its Series 4 Class D Preferred Stock called for redemption in the Redemption Notice shall be redeemed as provided in this Part 5 or converted into Common Stock in the manner provided in Part 4 hereof, except that, notwithstanding any provision of such Part 4 to the contrary, such holder shall have the right to convert into Common Stock that number of Series 4 Class D Preferred Stock called for redemption in the Redemption Notice.

5.5 Surrender of Certificates. On or before the Redemption Date in respect of any Series 4 Class D Preferred Stock, each holder of such shares shall surrender the required certificate or certificates representing such shares to the Corporation in the manner and at the place designated in the Redemption Notice, and upon the Redemption Date, the Redemption Price for such shares shall be made payable, in the manner provided in Section 5.6 hereof, to the order of the person whose name appears on such certificate or certificates as the owner thereof, and each surrendered share certificate shall be canceled and retired. If a share certificate is surrendered and all the shares evidenced thereby are not being redeemed (as described below), the Corporation shall cause the Series 4 Class D Preferred Stock which are not being redeemed to be registered in the names of the persons or entity whose names appear as the owners on the respective surrendered share certificates and deliver such certificate to such person.

5.6 Payment. On the Redemption Date in respect of any Series 4 Class D Preferred Stock or prior thereto, the Corporation shall deposit with any bank or trust company having a capital and surplus of at least U. S. \$50,000,000, as a trust fund, a sum equal to the aggregate Redemption Price of all such shares called from redemption (less the aggregate Redemption Price for those Series 4 Class D Preferred Stock in respect of which the Corporation has received notice from the holder thereof of its election to convert Series 4 Class D Preferred Stock into Common Stock), with irrevocable instructions and authority to the bank or trust company to pay, on or after the Redemption Date, the Redemption Price to the respective holders upon the surrender of their share certificates. The deposit shall constitute full payment for the shares to their holders, and from and after the date of the deposit the redeemed shares shall be deemed to be no longer outstanding, and holders thereof shall cease to be shareholders with respect to such

shares and shall have no rights with respect thereto except the rights to receive from the bank or trust company payments of the Redemption Price of the shares, without interest, upon surrender of their certificates thereof. Any funds so deposited and unclaimed at the end of one year following the Redemption Date shall be released or repaid to the Corporation, after which the former holders of shares called for redemption shall be entitled to receive payment of the Redemption Price in respect of their shares only from the Corporation.

Part 6 - Parity with Other Shares of Series 4 Class D Preferred Stock and Priority.

6.1 Rateable Participation. If any cumulative dividends or return of capital in respect of Series 4 Class D Preferred Stock are not paid in full, the owners of all series of outstanding Preferred Stock shall participate rateably in respect of accumulated dividends and return of capital.

6.2 Ranking. For purposes of this resolution, any stock of any class or series of the Corporation shall be deemed to rank:

6.2.1 Prior or senior to the shares of this Series 4 Class D Preferred Stock either as to dividends or upon liquidation, if the holders of such class or classes shall be entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of this Series 4 Class D Preferred Stock;

6.2.2 On a parity with, or equal to, shares of this Series 4 Class D Preferred Stock, either as to dividends or upon liquidation, whether or not the dividend rates, dividend payment dates, or redemption or liquidation prices per share or sinking fund provisions, if any, are different from those of this Series 4 Class C Preferred Stock, if the holders of such stock are entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, in proportion to their respective dividend rates or liquidation prices, without preference or priority, one over the other, as between the holders of such stock and over the other, as between the holders of such stock and the holders of shares of this Series 4 Class D Preferred Stock; and,

6.2.3 Junior to shares of this Series 4 Class D Preferred Stock, either as to dividends or upon liquidation, if such class or series shall be Common Stock or if the holders of shares of this Series 4 Class D Preferred Stock shall be entitled to receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the

Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of such class or series.

Part 7 - Amendment and Reissue.

7.1 Amendment. If any proposed amendment to the Corporation's Certificate of Incorporation (the "Articles") would alter or change the powers, preferences or special rights of the Series 4 Class D Preferred Stock so as to affect such adversely, then the Corporation must obtain the affirmative vote of such amendment to the Articles at a duly called and held series meeting of the holders of the Series 4 Class D Preferred Stock or written consent by the holders of a majority of the Series 4 Class D Preferred Stock then outstanding. Notwithstanding the above or the provisions of the GCL, the number of authorized shares of any class or classes of stock of the Corporation may be increased or decreased (but not below the number of shares thereof outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote thereon, voting together as a single class, irrespective of the provisions of this Section 7.1 or Section 242 of the GCL.

7.2 Authorized. Any shares of Series 4 Class D Preferred Stock acquired by the Corporation by reason of purchase, conversion, redemption or otherwise shall be retired and shall become authorized but unissued shares of Preferred Stock, which may be reissued as part of a new series of Preferred Stock hereafter created.

State of Delaware  
Office of the Secretary of State Page 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DESIGNATION OF "PERMA-FIX ENVIRONMENTAL SERVICES, INC." FILED IN THIS OFFICE ON THE FOURTEENTH DAY OF JULY, A.D. 1997, AT 11:15 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

/s/ Edward J. Freel

\_\_\_\_\_  
Edward J. Freel,  
Secretary of State

Authentication: 8556371

2249849 8100

Date: 07-14-97

971232152

OF SERIES 5 CLASS E CONVERTIBLE PREFERRED STOCK  
OF  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Perma-Fix Environmental Services, Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify:

That, pursuant to authority conferred upon by the Board of Directors by the Corporation's Restated Certificate of Incorporation, as amended, and pursuant to the provisions of Section 151 of the Delaware Corporation Law, the Board of Directors of the Corporation has adopted resolutions, a copy of which is attached hereto, establishing and providing for the issuance of a series of Preferred Stock designated as Series 5 Class E Convertible Preferred Stock and has established and fixed the voting powers, designations, preferences and relative participating, optional and other special rights and qualifications, limitations and restrictions of such Series 5 Class E Convertible Preferred Stock as set forth in the attached resolutions.

Dated: July 3, 1997

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis Centofanti

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Dr. Louis F. Centofanti  
Chairman of the Board

ATTEST:

/s/ Richard T. Kelecy

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Richard T. Kelecy, Secretary

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(the "Corporation")

RESOLUTION OF THE BOARD OF DIRECTORS

FIXING THE NUMBER AND DESIGNATING THE RIGHTS, PRIVILEGES,  
RESTRICTIONS AND CONDITIONS ATTACHING TO THE  
SERIES 5 CLASS E CONVERTIBLE PREFERRED STOCK

WHEREAS, the Corporation's capital includes preferred stock, par value \$.001 per share ("Preferred Stock"), which Preferred Stock may be issued in one or more series by resolutions adopted by the directors, and with the directors being entitled by resolution to fix the number of shares in each series and to designate the rights, designations, preferences and relative, participating, optional or other special rights and privileges, and qualifications, limitations or restrictions attaching to the shares of each such series;

WHEREAS, it is in the best interests of the Corporation for the Board to create a new series from the Preferred Stock

designated as the Series 5 Class E Convertible Preferred Stock, par value \$.001 per share ("Series 5 Class E Preferred Stock");

NOW, THEREFORE, BE IT RESOLVED, that the Series 5 Class E Convertible Preferred Stock, par value \$.001 (the "Series 5 Class E Preferred Stock") of the Corporation shall consist of three hundred fifty (350) shares and no more and shall be designated as the Series 5 Class E Convertible Preferred Stock, and the preferences, rights, privileges, restrictions and conditions attaching to the Series 5 Class E Preferred Stock shall be as follows:

#### Part 1 - Voting and Preemptive Rights.

1.1 Voting Rights. Except as otherwise provided in Section 242(b)(2) of the General Corporation Law of the State of Delaware (the "GCL"), the holders of the Series 5 Class E Preferred Stock shall have no voting rights whatsoever. To the extent that under Section 242(b)(2) of the GCL the vote of the holders of the Series 5 Class E Preferred Stock, voting separately as a class or series as applicable, is required to authorize a given action of the Corporation, the affirmative vote or consent of the holders of at least a majority of the shares of the Series 5 Class E Preferred Stock represented at a duly held meeting at which a quorum is present or by written consent of a majority of the shares of Series 5 Class E Preferred Stock (except as otherwise may be required under the GCL) shall constitute the approval of such action by the series. To the extent that under Section 242(b)(2) of the GCL the holders of the Series 5 Class E Preferred Stock are entitled to vote on a matter, each share of the Series 5 Class E Preferred Stock shall be entitled one (1) vote for each outstanding share of Series 5 Class E Preferred Stock. Holders of the Series 5 Class E Preferred Stock shall be entitled to notice of (and copies of proxy materials and other information sent to stockholders) for all shareholder meetings or written consents with respect to which they would be entitled to vote, which notice would be provided pursuant to the Corporation's bylaws and applicable statutes. If the holders of the Series 5 Class E Preferred Stock are required to vote under Section 242(b)(2) of the GCL as a result of the number of authorized shares of any such class or classes of stock being increased or decreased, the number of authorized shares of any of such class or classes of stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote thereon, irrespective of the provisions of Section 242(b)(2) of the GCL.

1.2 No Preemptive Rights. The Series 5 Class E Preferred Stock shall not give its holders any preemptive rights to acquire any other securities issued by the Corporation at any time in the future.

#### Part 2 - Liquidation Rights.

2.1 Liquidation. If the Corporation shall be voluntarily or involuntarily liquidated, dissolved or wound up at any time when any shares of the Series 5 Class E Preferred Stock shall be outstanding, the holders of the then outstanding Series 5 Class E Preferred Stock shall be entitled to receive out of the assets of the Corporation available for distribution to shareholders an amount equal to \$1,000 consideration per outstanding share of Series 5 Class E Preferred Stock, and no more, plus an amount equal to all unpaid dividends accrued thereon to the date of payment of such distribution ("Liquidation Preference"), whether or not

declared by the Board of Directors, before any payment shall be made or any assets distributed to the holders of the Corporation's Common Stock.

2.2 Payment of Liquidation Preferences. Subject to the provisions of Part 6 hereof, all amounts to be paid as Liquidation Preference to the holders of Series 5 Class E Preferred Stock, as provided in this Part 2, shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any of the Corporation's property to the holders of the Corporation's Common Stock, whether now or hereafter authorized, in connection with such liquidation, dissolution or winding up.

2.3 No Rights After Payment. After the payment to the holders of the shares of the Series 5 Class E Preferred Stock of the full Liquidation Preference amounts provided for in this Part 2, the holders of the Series 5 Class E Preferred Stock as such shall have no right or claim to any of the remaining assets of the Corporation.

2.4 Assets Insufficient to Pay Full Liquidation Preference. In the event that the assets of the Corporation available for distribution to the holders of shares of the Series 5 Class E Preferred Stock upon any dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, shall be insufficient to pay in full all amounts to which such holders are entitled pursuant to this Part 2, no such distribution shall be made on account of any shares of any other class or series of Preferred Stock ranking on a parity with the shares of this Series 5 Class E Preferred Stock upon such dissolution, liquidation or winding up unless proportionate distributive amounts shall be paid on account of the shares of this Series 5 Class E Preferred Stock and shares of such other class or series ranking on a parity with the shares of this Series 5 Class E Preferred Stock, ratably, in proportion to the full distributable amounts for which holders of all such parity shares are respectively entitled upon such dissolution, liquidation or winding up.

### Part 3 - Dividends.

3.1 The holders of the Series 5 Class E Preferred Stock are entitled to receive if, when and as declared by the Board of Directors of the Corporation (the "Board") out of funds legally available therefor, cumulative annual dividends, payable in cash or Common Stock of the Corporation, par value \$.001 per share (the "Common Stock"), or any combination thereof, at the Corporation's election, at the rate of four percent (4%) per annum of the Liquidation Value (as defined below) of each issued and outstanding share of Series 5 Class E Preferred Stock (the "Dividend Rate"). The Liquidation Value of the Series 5 Class E Preferred Stock shall be \$1,000 per outstanding share of the Series 5 Class E Preferred Stock (the "Liquidation Value"). The dividend is payable semi-annually within seven (7) business days after each of December 31 and June 30 of each year, commencing December 31, 1997 (each, a "Dividend Declaration Date"). Dividends shall be paid only with respect to shares of Series 5 Class E Preferred Stock actually issued and outstanding on a Dividend Declaration Date and to holders of record of the Series 5 Class E Preferred Stock as of the Dividend Declaration Date. Dividends shall accrue from the first day of the semi-annual period in which such dividend may be payable, except with respect to the first semi-annual dividend which shall accrue from the date of issuance of the Series 5 Class

E Preferred Stock. In the event that the Corporation elects to pay the accrued dividends due as of a Dividend Declaration Date on an outstanding share of the Series 5 Class E Preferred Stock in Common Stock of the Corporation, the holder of such share shall receive that number of shares of Common Stock of the Corporation equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Corporation's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing sale price if listed on a national securities exchange, for the five (5) trading days immediately prior to the Dividend Declaration Date (the "Stock Dividend Price"), times (b) a fraction, the numerator of which is the number of days elapsed during the period for which the dividend is to be paid, and the denominator of which is 365. Dividends on the Series 5 Class E Preferred Stock shall be cumulative, and no dividends or other distributions shall be paid or declared or set aside for payment on the Corporation's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 5 Class E Preferred Stock shall have been paid or declared and set aside for payment.

Part 4 - Conversion. The holders of the Series 5 Class E Preferred Stock shall have rights to convert the shares of Series 5 Class E Preferred Stock into shares of the Corporation's Common Stock, as follows (the "Conversion Rights"):

4.1 Right to Convert. The Series 5 Class E Preferred Stock shall be convertible into shares of Common Stock, as follows:

4.1.1 Up to one hundred seventy-five (175) shares of Series 5 Class E Preferred Stock may be converted at the Conversion Price (as that term is defined in Section 4.2 below) at any time on or after November 3, 1997; and,

4.1.2 Up to an additional one hundred seventy-five (175) shares of Series 5 Class E Preferred Stock may be converted at the Conversion Price at any time on or after December 3, 1997.

4.2 Conversion Price. Subject to the terms hereof, as used herein, the term Conversion Price per outstanding share of Series 5 Class E Preferred Stock shall be the product of the lesser of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five (5) trading days immediately preceding the date of the Conversion Notice referred to in Section 4.3 below multiplied by eighty percent (80%) or (ii) U.S. \$1.6875. Notwithstanding the foregoing, the Conversion Price shall not be less than a minimum of \$.75 per share ("Minimum Conversion Price"), which Minimum Conversion Price shall be eliminated from and after September 6, 1998. If any of the outstanding shares of Series 5 Class E Preferred Stock are converted, in whole or in part, into Common Stock pursuant to the terms of this Part 4, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a) the aggregate Liquidation Value of the Series 5 Class E Preferred Stock so surrendered for conversion by (b) the Conversion Price in effect at the date of the conversion. At the time of conversion of shares of the Series 5 Class E Preferred Stock, the Corporation shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to the date of



conversion, or, at the Corporation's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of shares of whole Common Stock which is equal to the quotient of the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 5 Class E Preferred Stock so converted divided by the Stock Dividend Price, as defined in Section 3.1 hereof, in effect at the date of conversion.

4.3 Mechanics of Conversion. Any holder of the Series 5 Class E Preferred Stock who wishes to exercise its Conversion Rights pursuant to Section 4.1 of this Part 4 must surrender the certificate therefor at the principal executive office of the Corporation, and give written notice, which may be via facsimile transmission, to the Corporation at such office that it elects to convert the same (the "Conversion Notice"). No Conversion Notice with respect to any shares of Series 5 Class E Preferred Stock can be given prior to the time such shares of Series 5 Class E Preferred Stock are eligible for conversion in accordance with the provision of Section 4.1 above, except as provided in Section 4.4. Any such premature Conversion Notice shall automatically be null and void. The Corporation shall, within seven (7) business days after receipt of an appropriate and timely Conversion Notice (and certificate, if necessary), issue to such holder of Series 5 Class E Preferred Stock or its agent a certificate for the number of shares of Common Stock to which he shall be entitled; it being expressly agreed that until and unless the holder delivers written notice to the Corporation to the contrary, all shares of Common Stock issuable upon conversion of the Series 5 Class E Preferred Stock hereunder are to be delivered by the Corporation to a party designated in writing by the holder in the Conversion Notice for the account of the holder and such shall be deemed valid delivery to the holder of such shares of Common Stock. Such conversion shall be deemed to have been made only after both the certificate for the shares of Series 5 Class E Preferred Stock to be converted have been surrendered and the Conversion Notice is received by the Corporation (the "Conversion Documents"), and the person or entity whose name is noted on the certificate evidencing such shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock at and after such time. In the event that the Conversion Notice is sent via facsimile transmission, the Corporation shall be deemed to have received such Conversion Notice on the first business day on which such facsimile Conversion Notice is actually received.

4.4 Merger or Consolidation. In case of either (a) any merger or consolidation to which the Corporation is a party (collectively, the "Merger"), other than a Merger in which the Corporation is the surviving or continuing corporation, or (b) any sale or conveyance to another corporation of all, or substantially all, of the assets of the Corporation (collectively, the "Sale"), and such Merger or Sale becomes effective (x) while any shares of Series 5 Class E Preferred Stock are outstanding and prior to the date that the Corporation's Registration Statement covering up to 200,000 shares of Common Stock issuable upon the conversion of the Series 5 Class E Preferred Stock is declared effective by the U. S. Securities and Exchange Commission or (y) prior to the end of the restriction periods in Section 4.1, then, in such event, the Corporation or such successor corporation, as the

case may be, shall make appropriate provision so that the holder of each share of Series 5 Class E Preferred Stock then outstanding shall have the right to convert such share of Series 5 Class E Preferred Stock into the kind and amount of shares of stock or other securities and property receivable upon such Merger or Sale by a holder of the number of shares of Common Stock into which such shares of Series 5 Class E Preferred Stock could have been converted into immediately prior to such Merger or Sale, subject to adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Part 4.

4.4 Adjustments to Conversion Price for Stock Dividends and for Combinations or Subdivisions of Common Stock. If the Corporation at any time or from time to time while shares of Series 5 Class E Preferred Stock are issued and outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the Conversion Price in effect immediately before such event shall, concurrently with the effectiveness of such event, be proportionately decreased or increased, as appropriate.

4.5. Adjustments for Reclassification and Reorganization. If the Common Stock issuable upon conversion of the Series 5 Class E Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for in Section 4.4 hereof), the Conversion Price then in effect shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted so that the Series 5 Class E Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders of Series 5 Class E Preferred Stock would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of the Series 5 Class E Preferred Stock immediately before that change.

4.6 Common Stock Duly Issued. All Common Stock which may be issued upon conversion of Series 5 Class E Preferred Stock will, upon issuance, be duly issued, fully paid and nonassessable and free from all taxes, liens, and charges with respect to the issue thereof.

4.7 Notice of Adjustments. Upon the occurrence of each adjustment or readjustment of any Conversion Price pursuant to this Part 4, the Corporation, at its expense, within a reasonable period of time, shall compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Series 5 Class E Preferred Stock a notice setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment is based.

4.8 Issue Taxes. The Corporation shall pay any and all issue and

other taxes that may be payable in respect of any issue or delivery of shares of Common Stock on conversion of the Series 5 Class E Preferred Stock pursuant thereto; provided, however, that the Corporation shall not be obligated to pay any transfer taxes resulting from any transfer requested by any holder of Series 5 Class E Preferred Stock in connection with such conversion.

4.9 Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series 5 Class E Preferred Stock, such number of its shares of Common Stock as shall, from time to time, be sufficient to effect the conversion of all outstanding shares of the Series 5 Class E Preferred stock, and, if at any time, the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series 5 Class E Preferred Stock, the Corporation will take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in reasonable efforts to obtain the requisite stockholder approval of any necessary amendment to its Certificate of Incorporation.

4.10 Fractional Shares. No fractional shares shall be issued upon the conversion of any share or shares of Series 5 Class E Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series 5 Class E Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of a fractional share of Common Stock, such fractional share shall be rounded up to the nearest whole share.

4.11 Notices. Any notices required by the provisions of this Part 4 to be given to the holders of shares of Series 5 Class E Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of the Corporation.

4.12 Business Day. As used herein, the term "business day" shall mean any day other than a Saturday, Sunday or a day when the federal and state banks located in the State of New York are required or is permitted to close.

## Part 5 - Redemption.

5.1 Redemption at Corporation's Option. Except as otherwise provided in this Section 5.1, at any time, and from time to time, after the expiration of one (1) year from the date of the first issuance of the Series 5 Class E Preferred Stock, the Corporation may, at its sole option, but shall not be obligated to, redeem, in whole or in part, at any time, and from time to time, the then outstanding Series 5 Class E Preferred Stock at the following cash redemption prices per share (the "Redemption Price") if redeemed during the following periods: (a) within four (4) years from the date of

the first issuance of Series 5 Class E Preferred Stock - \$1,300 per share, if at any time during such four (4) year period the average of the closing bid price of the Common Stock for ten (10) consecutive trading days shall be in excess of Four U.S. Dollars (\$4.00) per share, and (b) after four (4) years from the date of the first issuance of Series 5 Class E Preferred Stock - \$1,000 per share.

5.3 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Corporation for the redemption of Series 5 Class E Preferred Stock (the "Redemption Date"), written notice (the "Redemption Notice") shall be mailed to each holder of record on such notice date of the Series 5 Class E Preferred Stock. The Redemption Notice shall state: (i) the Redemption Date of such shares, (ii) the number of Series 5 Class E Preferred Stock to be redeemed from the holder to whom the Redemption Notice is addressed, (iii) instructions for surrender to the Corporation, in the manner and at the place designated, of a share certificate or share certificates representing the number of Series 5 Class E Preferred Stock to be redeemed from such holder, and (iv) instructions as to how to specify to the Corporation the number of Series 5 Class E Preferred Stock to be redeemed as provided in this Part 5.

5.4 Rights of Conversion Upon Redemption. If the redemption occurs after the first one hundred eighty (180) days after the first issuance of Series 5 Class E Preferred Stock, then, upon receipt of the Redemption Notice, any holder of Series 5 Class E Preferred Stock shall have the option, at its sole election, to specify what portion of its Series 5 Class E Preferred Stock called for redemption in the Redemption Notice shall be redeemed as provided in this Part 5 or converted into Common Stock in the manner provided in Part 4 hereof.

5.5 Surrender of Certificates. On or before the Redemption Date in respect of any Series 5 Class E Preferred Stock, each holder of such shares shall surrender the required certificate or certificates representing such shares to the Corporation in the manner and at the place designated in the Redemption Notice, and upon the Redemption Date, the Redemption Price for such shares shall be made payable, in the manner provided in Section 5.6 hereof, to the order of the person whose name appears on such certificate or certificates as the owner thereof. If a share certificate is surrendered and all the shares evidenced thereby are not being redeemed (as described below), the Corporation shall cause the Series 5 Class E Preferred Stock which are not being redeemed to be registered in the names of the persons or entity whose names appear as the owners on the respective surrendered share certificates and deliver such certificate to such person.

5.6 Payment. On the Redemption Date in respect of any Series 5 Class E Preferred Stock or prior thereto, the Corporation shall deposit with any bank or trust company having a capital and surplus of at least U. S. \$50,000,000, as a trust fund, a sum equal to the aggregate Redemption Price of all such shares called from redemption (less the aggregate Redemption Price for those Series 5 Class E Preferred Stock in respect of which the Corporation has received notice from the holder thereof of its election to convert Series 5 Class E Preferred Stock into Common Stock), with irrevocable instructions and authority to the bank or trust company to pay, on or after the Redemption Date, the Redemption Price to the respective holders upon the surrender of their share certificates. The deposit shall

constitute full payment for the shares to their holders, and from and after the date of the deposit the redeemed shares shall be deemed to be no longer outstanding, and holders thereof shall cease to be shareholders with respect to such shares and shall have no rights with respect thereto except the rights to receive from the bank or trust company payments of the Redemption Price of the shares, without interest, upon surrender of their certificates thereof. Any funds so deposited and unclaimed at the end of one year following the Redemption Date shall be released or repaid to the Corporation, after which the former holders of shares called for redemption shall be entitled to receive payment of the Redemption Price in respect of their shares only from the Corporation.

Part 6 - Parity with Other Shares of Series 5 Class E Preferred Stock and Priority.

6.1 Rateable Participation. If any cumulative dividends or return of capital in respect of Series 5 Class E Preferred Stock are not paid in full, the owners of all series of outstanding Preferred Stock shall participate rateably in respect of accumulated dividends and return of capital.

6.2 Ranking. For purposes of this resolution, any stock of any class or series of the Corporation shall be deemed to rank:

6.2.1 Prior or senior to the shares of this Series 5 Class E Preferred Stock either as to dividends or upon liquidation, if the holders of such class or classes shall be entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of this Series 5 Class E Preferred Stock;

6.2.2 On a parity with, or equal to, shares of this Series 5 Class E Preferred Stock, either as to dividends or upon liquidation, whether or not the dividend rates, dividend payment dates, or redemption or liquidation prices per share or sinking fund provisions, if any, are different from those of this Series 5 Class E Preferred Stock, if the holders of such stock are entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, in proportion to their respective dividend rates or liquidation prices, without preference or priority, one over the other, as between the holders of such stock and over the other, as between the holders of such stock and the holders of shares of this Series 5 Class E Preferred Stock; and,

6.2.3 Junior to shares of this Series 5 Class E Preferred Stock, either as to dividends or upon liquidation, if such class or series shall be Common Stock or if the holders of

shares of this Series 5 Class E Preferred Stock shall be entitled to receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of such class or series.

Part 7 - Reissue.

7.1 Authorized. Any shares of Series 5 Class E Preferred Stock acquired by the Corporation by reason of purchase, conversion, redemption or otherwise shall be retired and shall become authorized but unissued shares of Preferred Stock, which may be reissued as part of a new series of Preferred Stock hereafter created.

State of Delaware  
Office of the Secretary of State Page 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DESIGNATION OF "PERMA-FIX ENVIRONMENTAL SERVICES, INC." FILED IN THIS OFFICE ON THE THIRTEENTH DAY OF NOVEMBER, A.D. 1997, AT 1:30 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

/s/ Edward J. Freel

\_\_\_\_\_  
Edward J. Freel,  
Secretary of State

Authentication: 8755483

2249849 8100

Date: 11-13-97

971387107

CERTIFICATE OF DESIGNATIONS  
OF SERIES 6 CLASS F CONVERTIBLE PREFERRED STOCK  
OF  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Perma-Fix Environmental Services, Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify:

That, pursuant to authority conferred upon by the Board of Directors by the Corporation's Restated Certificate of Incorporation, as amended, and pursuant to the provisions of Section 151 of the Delaware Corporation Law, the Board of Directors

of the Corporation has adopted resolutions, a copy of which is attached hereto, establishing and providing for the issuance of a series of Preferred Stock designated as Series 6 Class F Convertible Preferred Stock and has established and fixed the voting powers, designations, preferences and relative participating, optional and other special rights and qualifications, limitations and restrictions of such Series 6 Class F Convertible Preferred Stock as set forth in the attached resolutions.

Dated: November 12, 1997

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis Centofanti

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Dr. Louis F. Centofanti  
Chairman of the Board

ATTEST:

/s/ Richard T. Kelecy

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Richard T. Kelecy, Secretary

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(the "Corporation")

RESOLUTION OF THE BOARD OF DIRECTORS

FIXING THE NUMBER AND DESIGNATING THE RIGHTS, PRIVILEGES,  
RESTRICTIONS AND CONDITIONS ATTACHING TO THE  
SERIES 6 CLASS F CONVERTIBLE PREFERRED STOCK

WHEREAS, the Corporation's capital includes preferred stock, par value \$.001 per share ("Preferred Stock"), which Preferred Stock may be issued in one or more series by resolutions adopted by the directors, and with the directors being entitled by resolution to fix the number of shares in each series and to designate the rights, designations, preferences and relative, participating, optional or other special rights and privileges, restrictions and conditions attaching to the shares of each such series;

WHEREAS, it is in the best interests of the Corporation for the Board to create a new series from the Preferred Stock designated as the Series 6 Class F Convertible Preferred Stock, par value \$.001 per share (the "Series 6 Class F Preferred Stock");

NOW, THEREFORE, BE IT RESOLVED, that the Series 6 Class F Preferred Stock shall consist of two thousand five hundred (2,500) shares and no more and shall be designated as the Series 6 Class F Convertible Preferred Stock, and the preferences, rights, privileges, restrictions and conditions attaching to the Series 6 Class F Preferred Stock shall be as follows:

Part 1 - Voting and Preemptive Rights.

1.1 Voting Rights. Except as otherwise provided in Part

7 hereof or under the General Corporation Law of the State of Delaware (the "GCL"), the holders of the Series 6 Class F Preferred Stock shall have no voting rights whatsoever. To the extent that under Part 7 hereof or the GCL the vote of the holders of the Series 6 Class F Preferred Stock, voting separately as a class or series as applicable, is required to authorize a given action of the Corporation, the affirmative vote or consent of the holders of at least a majority of the shares of the Series 6 Class F Preferred Stock represented at a duly held meeting at which a quorum is present or by written consent of a majority of the shares of Series 6 Class F Preferred Stock (except as otherwise may be required under the GCL) shall constitute the approval of such action by the series. To the extent that under the GCL or Part 7 hereof, the holders of the Series 6 Class F Preferred Stock are entitled to vote on a matter, each share of the Series 6 Class F Preferred Stock shall be entitled one (1) vote for each outstanding share of Series 6 Class F Preferred Stock. Holders of the Series 6 Class F Preferred Stock shall be entitled to notice of (and copies of proxy materials and other information sent to stockholders) for all shareholder meetings or written consents with respect to which they would be entitled to vote, which notice would be provided pursuant to the Corporation's bylaws and applicable statutes.

1.2 No Preemptive Rights. The Series 6 Class F Preferred Stock shall not give its holders any preemptive rights to acquire any other securities issued by the Corporation at any time in the future.

## Part 2 - Liquidation Rights.

2.1 Liquidation. If the Corporation shall be voluntarily or involuntarily liquidated, dissolved or wound up at any time when any shares of the Series 6 Class F Preferred Stock shall be outstanding, the holders of the then outstanding Series 6 Class F Preferred Stock shall have a preference in distribution of the Corporation's property available for distribution to the holders of the Corporation's Common Stock equal to \$1,000 consideration per outstanding share of Series 6 Class F Preferred Stock, plus an amount equal to all unpaid dividends accrued thereon to the date of payment of such distribution ("Liquidation Preference"), whether or not declared by the Board.

2.2 Payment of Liquidation Preferences. Subject to the provisions of Part 6 hereof, all amounts to be paid as Liquidation Preference to the holders of Series 6 Class F Preferred Stock, as provided in this Part 2, shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any of the Corporation's property to the holders of the Corporation's Common Stock, whether now or hereafter authorized, in connection with such liquidation, dissolution or winding up.

2.3 No Rights After Payment. After the payment to the holders of the shares of the Series 6 Class F Preferred Stock of the full Liquidation Preference amounts provided for in this Part 2, the holders of the Series 6 Class F Preferred Stock as such shall have no right or claim to



any of the remaining assets of the Corporation.

2.4 Assets Insufficient to Pay Full Liquidation Preference. In the event that the assets of the Corporation available for distribution to the holders of shares of the Series 6 Class F Preferred Stock upon any dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, shall be insufficient to pay in full all amounts to which such holders are entitled pursuant to this Part 2, no such distribution shall be made on account of any shares of any other class or series of Preferred Stock ranking on a parity with the shares of this Series 6 Class F Preferred Stock upon such dissolution, liquidation or winding up unless proportionate distributive amounts shall be paid on account of the shares of this Series 6 Class F Preferred Stock and shares of such other class or series ranking on a parity with the shares of this Series 6 Class F Preferred Stock, ratably, in proportion to the full distributable amounts for which holders of all such parity shares are respectively entitled upon such dissolution, liquidation or winding up.

Part 3 - Dividends. The holders of the Series 6 Class F Preferred Stock are entitled to receive if, when and as declared by the Board out of funds legally available therefor, cumulative dividends, payable in cash or Common Stock of the Corporation, par value \$.001 per share (the "Common Stock"), or any combination thereof, at the Corporation's election, at the rate of four percent (4%) per annum of the Liquidation Value (as defined below) of each issued and outstanding share of Series 6 Class F Preferred Stock (the "Dividend Rate"). The Liquidation Value of the Series 6 Class F Preferred Stock shall be \$1,000 per outstanding share of the Series 6 Class F Preferred Stock (the "Liquidation Value"). The dividend is payable semi-annually within seven (7) business days after each of December 31 and June 30 of each year, commencing December 31, 1997 (each, a "Dividend Declaration Date"). Dividends shall be paid only with respect to shares of Series 6 Class F Preferred Stock actually issued and outstanding on a Dividend Declaration Date and to holders of record of the Series 6 Class F Preferred Stock as of the Dividend Declaration Date. Dividends shall accrue from the first day of the semi-annual period in which such dividend may be payable, except with respect to the first semi-annual dividend which shall accrue from September 16, 1997. In the event that the Corporation elects to pay the accrued dividends due as of a Dividend Declaration Date on an outstanding share of the Series 6 Class F Preferred Stock in Common Stock of the Corporation, the holder of such share shall receive that number of shares of Common Stock of the Corporation equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Corporation's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing sale price if listed on a national securities exchange, for the five (5) trading days immediately prior to the Dividend Declaration Date (the "Stock Dividend Price"), times (b) a fraction, the numerator of which is the number of days elapsed during

the period for which the dividend is to be paid, and the denominator of which is 365. Dividends on the Series 6 Class F Preferred Stock shall be cumulative, and no dividends or other distributions shall be paid or declared or set aside for payment on the Corporation's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 6 Class F Preferred Stock shall have been paid or declared and set aside for payment.

Part 4 - Conversion. The holders of the Series 6 Class F Preferred Stock shall have rights to convert the shares of Series 6 Class F Preferred Stock into shares of the Corporation's Common Stock, par value \$.001 per share ("Common Stock"), as follows (the "Conversion Rights"):

4.1 Right to Convert. The Series 6 Class F Preferred Stock shall be convertible into shares of Common Stock, as follows:

4.1.1 Up to one thousand two hundred fifty (1,250) shares of Series 6 Class F Preferred Stock may be converted at the Conversion Price (as that term is defined in Section 4.2 below) at any time on or after October 5, 1997; and,

4.1.2 Up to an additional one thousand two hundred fifty (1,250) shares of Series 6 Class F Preferred Stock may be converted at the Conversion Price at any time on or after November 5, 1997.

4.2 Conversion Price. Subject to the terms hereof, as used herein, the Conversion Price per outstanding share of Series 6 Class F Preferred Stock shall be \$1.8125, except that, in the event the average closing bid price per share of the Common Stock for 20 of any 30 consecutive trading days after March 1, 1998 shall be less than \$2.50 as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, the Conversion Price shall thereafter be the product of the lesser of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five trading days immediately preceding the date of the Conversion Notice referred to in Section 4.3 below multiplied by eighty percent (80%) or (ii) \$1.8125. Notwithstanding the foregoing, the Conversion Price shall not be less than a minimum of \$.75 per share ("Minimum Conversion Price"), which Minimum Conversion Price shall be eliminated from and after September 6, 1998. If any of the outstanding shares of Series 6 Class F Preferred Stock are converted, in whole or in part, into Common Stock pursuant to the terms of this Part 4, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a) the aggregate Liquidation Value of the Series 6 Class F Preferred Stock so surrendered for conversion by (b) the Conversion Price as of such conversion. At the time of conversion of shares of the Series 6 Class F Preferred Stock, the Corporation shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to

the date of conversion, or, at the Corporation's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of whole shares of Common Stock which is equal to the quotient of the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 6 Class F Preferred Stock so converted divided by the Stock Dividend Price, as defined in Part 3 hereof, in effect at the date of conversion.

4.3 Mechanics of Conversion. Any holder of the Series 6 Class F Preferred Stock who wishes to exercise its Conversion Rights pursuant to Section 4.1 of this Part 4 must, if such shares are not being held in escrow by the Corporation's attorneys, surrender the certificate therefor at the principal executive office of the Corporation, and give written notice, which may be via facsimile transmission, to the Corporation at such office that it elects to convert the same (the "Conversion Notice"). In the event that the shares of Series 6 Class F Preferred Stock are being held in escrow by the Corporation's attorneys, no delivery of the certificates shall be required. No Conversion Notice with respect to any shares of Series 6 Class F Preferred Stock can be given prior to the time such shares of Series 6 Class F Preferred Stock are eligible for conversion in accordance with the provision of Section 4.1 above, except as provided in Section 4.4. Any such premature Conversion Notice shall automatically be null and void. The Corporation shall, within five (5) business days after receipt of an appropriate and timely Conversion Notice (and certificate, if necessary), issue to such holder of Series 6 Class F Preferred Stock or its agent a certificate for the number of shares of Common Stock to which he shall be entitled; it being expressly agreed that until and unless the holder delivers written notice to the Corporation to the contrary, all shares of Common Stock issuable upon conversion of the Series 6 Class F Preferred Stock hereunder are to be delivered by the Corporation to a party designated in writing by the holder in the Conversion Notice for the account of the holder and such shall be deemed valid delivery to the holder of such shares of Common Stock. Such conversion shall be deemed to have been made only after both the certificate for the shares of Series 6 Class F Preferred Stock to be converted have been surrendered and the Conversion Notice is received by the Corporation (or in the event that no surrender of the Certificate is required, then only upon the receipt by the Corporation of the Conversion Notice) (the "Conversion Documents"), and the person or entity whose name is noted on the certificate evidencing such shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock at and after such time. In the event that the Conversion Notice is sent via facsimile transmission, the Corporation shall be deemed to have received such Conversion Notice on the first business day on which such facsimile Conversion Notice is actually received. If the Corporation fails to deliver to the holder or its agent the certificate representing the shares of Common Stock that the holder is entitled to receive as a result of such conversion within seven (7) business days after

receipt by the Corporation from the holder of an appropriate and timely Conversion Notice and certificates pursuant to the terms of this Section 4.3 ("Seven (7) Business Day Period"), then, upon the written demand of RBB Bank Aktiengesellschaft ("RBB Bank"), the holder of the Series 6 Class F Preferred Stock, for payment of the penalty described below in this Section 4.3, which demand must be received by the Corporation no later than ten (10) calendar days after the expiration of such Seven (7) Business Day Period, the Corporation shall pay to RBB Bank the following penalty for each business day after the Seven (7) Business Day Period until the Corporation delivers to the holder or its agent the certificate representing the shares of Common Stock that the holder is entitled to receive as a result of such conversion: business day eight (8) - U.S. \$1,000; business day nine (9) - U.S. \$2,000, and each business day thereafter an amount equal to the penalty due on the immediately preceding business day times two (2) until the Corporation delivers to the holder or its agent the certificate representing the shares of Common Stock that the holder is entitled to receive as a result of such conversion.

4.4 Merger or Consolidation. In case of either (a) any merger or consolidation to which the Corporation is a party (collectively, the "Merger"), other than a Merger in which the Corporation is the surviving or continuing corporation, or (b) any sale or conveyance to another corporation of all, or substantially all, of the assets of the Corporation (collectively, the "Sale"), and such Merger or Sale becomes effective (x) while any shares of Series 6 Class F Preferred Stock are outstanding and prior to the date that the Corporation's Registration Statement covering up to 1,379,500 shares of Common Stock issuable upon the conversion of the Series 6 Class F Preferred Stock is declared effective by the U. S. Securities and Exchange Commission or (y) prior to the end of the restriction periods in Section 4.1, then, in such event, the Corporation or such successor corporation, as the case may be, shall make appropriate provision so that the holder of each share of Series 6 Class F Preferred Stock then outstanding shall have the right to convert such share of Series 6 Class F Preferred Stock into the kind and amount of shares of stock or other securities and property receivable upon such Merger or Sale by a holder of the number of shares of Common Stock into which such shares of Series 6 Class F Preferred Stock could have been converted into immediately prior to such Merger or Sale, subject to adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Part 4.

4.5 Adjustments to Conversion Price for Stock Dividends and for Combinations or Subdivisions of Common Stock. If the Corporation at any time or from time to time while shares of Series 6 Class F Preferred Stock are issued and outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or in any right

to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the Conversion Price in effect immediately before such event shall, concurrently with the effectiveness of such event, be proportionately decreased or increased, as appropriate.

4.6 Adjustments for Reclassification and Reorganization. If the Common Stock issuable upon conversion of the Series 6 Class F Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for in Section 4.4 hereof), the Conversion Price shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted so that the Series 6 Class F Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders of Series 6 Class F Preferred Stock would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of the Series 6 Class F Preferred Stock immediately before that change.

4.7 Common Stock Duly Issued. All Common Stock which may be issued upon conversion of Series 6 Class F Preferred Stock will, upon issuance, be duly issued, fully paid and nonassessable and free from all taxes, liens, and charges with respect to the issue thereof.

4.8 Notice of Adjustments. Upon the occurrence of each adjustment or readjustment of any Conversion Price pursuant to this Part 4, the Corporation, at its expense, within a reasonable period of time, shall compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Series 6 Class F Preferred Stock a notice setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment is based.

4.9 Issue Taxes. The Corporation shall pay any and all issue and other taxes that may be payable in respect of any issue or delivery of shares of Common Stock on conversion of the Series 6 Class F Preferred Stock pursuant thereto; provided, however, that the Corporation shall not be obligated to pay any transfer taxes resulting from any transfer requested by any holder of Series 6 Class F Preferred Stock in connection with such conversion.

4.10 Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series 6 Class F Preferred Stock, such number of its shares of Common Stock as shall, from time to time, be sufficient to effect the conversion of all outstanding shares of the Series 6 Class F Preferred stock, and, if at any time, the number of authorized but

unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series 6 Class F Preferred Stock, the Corporation will take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in reasonable efforts to obtain the requisite stockholder approval of any necessary amendment to its Certificate of Incorporation.

4.11 Fractional Shares. No fractional shares shall be issued upon the conversion of any share or shares of Series 6 Class F Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series 6 Class F Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of a fractional share of Common Stock, such fractional share shall be rounded up to the nearest whole share.

4.12 Notices. Any notices required by the provisions of this Part 4 to be given to the holders of shares of Series 6 Class F Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of the Corporation.

4.13 Business Day. As used herein, the term "business day" shall mean any day other than a Saturday, Sunday or a day when the federal and state banks located in the State of New York are required or is permitted to close.

#### Part 5 - Redemption.

5.1 Redemption at Corporation's Option. Except as otherwise provided in this Section 5.1, at any time, and from time to time, after the expiration of one (1) year from June 9, 1997, the Corporation may, at its sole option, but shall not be obligated to, redeem, in whole or in part, at any time, and from time to time, the then outstanding Series 6 Class F Preferred Stock at the following cash redemption prices per share (the "Redemption Price") if redeemed during the following periods: (a) within four years from June 9, 1997 - \$1,300 per share, if at any time during such four year period the average of the closing bid price of the Common Stock for ten consecutive trading days shall be in excess of Four Dollars (\$4.00) per share, and (b) after four years from June 9, 1997 - \$1,000 per share.

5.2 Mechanics of Redemption. Thirty days prior to any date stipulated by the Corporation for the redemption of Series 6 Class F Preferred Stock (the "Redemption Date"), written notice (the "Redemption Notice") shall be mailed to each holder of record on such notice date of the Series 6 Class F Preferred Stock. The Redemption Notice shall state: (i) the Redemption Date of such shares, (ii) the number of Series 6 Class F Preferred Stock to be redeemed from the holder to whom the Redemption Notice is addressed, (iii) instructions for surrender to the

Corporation, in the manner and at the place designated, of a share certificate or share certificates representing the number of Series 6 Class F Preferred Stock to be redeemed from such holder, and (iv) instructions as to how to specify to the Corporation the number of Series 6 Class F Preferred Stock to be redeemed as provided in this Part 5 and, if the Redemption Notice is mailed to the Holder after the first 180 days from the date of issuance of the Series 6 Class F Preferred Stock, the number of shares to be converted into Common Stock as provided in Part 4 hereof.

5.3 Rights of Conversion Upon Redemption. If the redemption occurs after the first 180 days after the first issuance of Series 6 Class F Preferred Stock, then, upon receipt of the Redemption Notice, any holder of Series 6 Class F Preferred Stock shall have the option, at its sole election, to specify what portion of its Series 6 Class F Preferred Stock called for redemption in the Redemption Notice shall be redeemed as provided in this Part 5 or converted into Common Stock in the manner provided in Part 4 hereof, except that, notwithstanding any provision of such Part 4 to the contrary, such holder shall have the right to convert into Common Stock that number of Series 6 Class F Preferred Stock called for redemption in the Redemption Notice.

5.4 Surrender of Certificates. On or before the Redemption Date in respect of any Series 6 Class F Preferred Stock, each holder of such shares shall surrender the required certificate or certificates representing such shares to the Corporation in the manner and at the place designated in the Redemption Notice, and upon the Redemption Date, the Redemption Price for such shares shall be made payable, in the manner provided in Section 5.6 hereof, to the order of the person whose name appears on such certificate or certificates as the owner thereof, and each surrendered share certificate shall be canceled and retired. If a share certificate is surrendered and all the shares evidenced thereby are not being redeemed (as described below), the Corporation shall cause the Series 6 Class F Preferred Stock which are not being redeemed to be registered in the names of the persons or entity whose names appear as the owners on the respective surrendered share certificates and deliver such certificate to such person.

5.5 Payment. On the Redemption Date in respect of any Series 6 Class F Preferred Stock or prior thereto, the Corporation shall deposit with any bank or trust company having a capital and surplus of at least \$50,000,000, as a trust fund, a sum equal to the aggregate Redemption Price of all such shares called from redemption (less the aggregate Redemption Price for those Series 6 Class F Preferred Stock in respect of which the Corporation has received notice from the holder thereof of its election to convert Series 6 Class F Preferred Stock into Common Stock), with irrevocable instructions and authority to the bank or trust company to pay, on or after the Redemption Date, the Redemption Price to the respective holders upon the surrender of their share certificates. The deposit shall constitute full payment for the shares to their holders, and from and after the date of the

deposit the redeemed shares shall be deemed to be no longer outstanding, and holders thereof shall cease to be shareholders with respect to such shares and shall have no rights with respect thereto except the rights to receive from the bank or trust company payments of the Redemption Price of the shares, without interest, upon surrender of their certificates thereof. Any funds so deposited and unclaimed at the end of one year following the Redemption Date shall be released or repaid to the Corporation, after which the former holders of shares called for redemption shall be entitled to receive payment of the Redemption Price in respect of their shares only from the Corporation.

Part 6 - Parity with Other Shares of Series 6 Class F Preferred Stock and Priority.

6.1 Rateable Participation. If any cumulative dividends or return of capital in respect of Series 6 Class F Preferred Stock are not paid in full, the owners of all series of outstanding Preferred Stock shall participate rateably in respect of accumulated dividends and return of capital.

6.2 Ranking. For purposes of this resolution, any stock of any class or series of the Corporation shall be deemed to rank:

6.2.1 Prior or senior to the shares of this Series 6 Class F Preferred Stock either as to dividends or upon liquidation, if the holders of such class or classes shall be entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of this Series 6 Class F Preferred Stock;

6.2.2 On a parity with, or equal to, shares of this Series 6 Class F Preferred Stock, either as to dividends or upon liquidation, whether or not the dividend rates, dividend payment dates, or redemption or liquidation prices per share or sinking fund provisions, if any, are different from those of this Series 6 Class F Preferred Stock, if the holders of such stock are entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, in proportion to their respective dividend rates or liquidation prices, without preference or priority, one over the other, as between the holders of such stock and over the other, as between the holders of such stock and the holders of shares of this Series 6 Class F Preferred Stock; and,

6.2.3 Junior to shares of this Series 6 Class F Preferred Stock, either as to dividends



or upon liquidation, if such class or series shall be Common Stock or if the holders of shares of this Series 6 Class F Preferred Stock shall be entitled to receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of such class or series.

Part 7 - Amendment and Reissue.

7.1 Amendment. If any proposed amendment to the Corporation's Certificate of Incorporation (the "Articles") would alter or change the powers, preferences or special rights of the Series 6 Class F Preferred Stock so as to affect such adversely, then the Corporation must obtain the affirmative vote of such amendment to the Articles at a duly called and held series meeting of the holders of the Series 6 Class F Preferred Stock or written consent by the holders of a majority of the Series 6 Class F Preferred Stock then outstanding. Notwithstanding the above or the provisions of the GCL, the number of authorized shares of any class or classes of stock of the Corporation may be increased or decreased (but not below the number of shares thereof outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote thereon, voting together as a single class, irrespective of the provisions of this Section 7.1 or Section 242 of the GCL.

7.2 Authorized. Any shares of Series 6 Class F Preferred Stock acquired by the Corporation by reason of purchase, conversion, redemption or otherwise shall be retired and shall become authorized but unissued shares of Preferred Stock, which may be reissued as part of a new series of Preferred Stock hereafter created.

State of Delaware  
Office of the Secretary of State

Page 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF DESIGNATION OF "PERMA-FIX ENVIRONMENTAL SERVICES, INC." FILED IN THIS OFFICE ON THE THIRTEENTH DAY OF NOVEMBER, A.D. 1997, AT 1:31 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

/s/ Edward J. Freel

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Edward J. Freel,  
Secretary of State

Authentication: 8755553

2249849 8100

Date: 11-13-97

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CERTIFICATE OF DESIGNATIONS  
OF SERIES 7 CLASS G CONVERTIBLE PREFERRED STOCK  
OF  
PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Perma-Fix Environmental Services, Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify:

That, pursuant to authority conferred upon by the Board of Directors by the Corporation's Restated Certificate of Incorporation, as amended, and pursuant to the provisions of Section 151 of the Delaware Corporation Law, the Board of Directors of the Corporation has adopted resolutions, a copy of which is attached hereto, establishing and providing for the issuance of a series of Preferred Stock designated as Series 7 Class G Convertible Preferred Stock and has established and fixed the voting powers, designations, preferences and relative participating, optional and other special rights and qualifications, limitations and restrictions of such Series 7 Class G Convertible Preferred Stock as set forth in the attached resolutions.

Dated: November 12, 1997

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

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Dr. Louis F. Centofanti  
Chairman of the Board

ATTEST:

/s/ Richard T. Kelecy

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Richard T. Kelecy, Secretary

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(the "Corporation")

RESOLUTION OF THE BOARD OF DIRECTORS

FIXING THE NUMBER AND DESIGNATING THE RIGHTS, PRIVILEGES,  
RESTRICTIONS AND CONDITIONS ATTACHING TO THE  
SERIES 7 CLASS G CONVERTIBLE PREFERRED STOCK

WHEREAS, the Corporation's capital includes preferred stock, par value \$.001 per share ("Preferred Stock"), which Preferred Stock may be issued in one or more series by resolutions adopted by

the directors, and with the directors being entitled by resolution to fix the number of shares in each series and to designate the rights, designations, preferences and relative, participating, optional or other special rights and privileges, restrictions and conditions attaching to the shares of each such series;

WHEREAS, it is in the best interests of the Corporation for the Board to create a new series from the Preferred Stock designated as the Series 7 Class G Convertible Preferred Stock, par value \$.001 per share (the "Series 7 Class G Preferred Stock");

NOW, THEREFORE, BE IT RESOLVED, that the Series 7 Class G Preferred Stock shall consist of three hundred (350) shares and no more and shall be designated as the Series 7 Class G Convertible Preferred Stock, and the preferences, rights, privileges, restrictions and conditions attaching to the Series 7 Class G Preferred Stock shall be as follows:

#### Part 1 - Voting and Preemptive Rights.

1.1 Voting Rights. Except as otherwise provided in Section 242(b)(2) of the General Corporation Law of the State of Delaware (the "GCL"), the holders of the Series 7 Class G Preferred Stock shall have no voting rights whatsoever. To the extent that under Section 242(b)(2) of the GCL the vote of the holders of the Series 7 Class G Preferred Stock, voting separately as a class or series as applicable, is required to authorize a given action of the Corporation, the affirmative vote or consent of the holders of at least a majority of the shares of the Series 7 Class G Preferred Stock represented at a duly held meeting at which a quorum is present or by written consent of a majority of the shares of Series 7 Class G Preferred Stock (except as otherwise may be required under the GCL) shall constitute the approval of such action by the series. To the extent that under Section 242(b)(2) of the GCL the holders of the Series 7 Class G Preferred Stock are entitled to vote on a matter, each share of the Series 7 Class G Preferred Stock shall be entitled one (1) vote for each outstanding share of Series 7 Class G Preferred Stock. Holders of the Series 7 Class G Preferred Stock shall be entitled to notice of (and copies of proxy materials and other information sent to stockholders) for all shareholder meetings or written consents with respect to which they would be entitled to vote, which notice would be provided pursuant to the Corporation's bylaws and applicable statutes. If the holders of the Series 7 Class G Preferred Stock are required to vote under Section 242(b)(2) of the GCL as a result of the number of authorized shares of any such class or classes of stock being increased or decreased, the number of authorized shares of any of such class or classes of stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote thereon, irrespective of the provisions of Section 242(b)(2) of the GCL.

1.2 No Preemptive Rights. The Series 7 Class G Preferred Stock shall not give its holders any preemptive rights to acquire any other securities issued by the Corporation at any time in the future.

#### Part 2 - Liquidation Rights.

2.1 Liquidation. If the Corporation shall be voluntarily or involuntarily liquidated, dissolved or wound up at any time when any shares of the Series 7 Class G Preferred Stock shall be

outstanding, the holders of the then outstanding Series 7 Class G Preferred Stock shall be entitled to receive out of the assets of the Corporation available for distribution to shareholders an amount equal to \$1,000 consideration per outstanding share of Series 7 Class G Preferred Stock, and no more, plus an amount equal to all unpaid dividends accrued thereon to the date of payment of such distribution ("Liquidation Preference"), whether or not declared by the Board of Directors, before any payment shall be made or any assets distributed to the holders of the Corporation's Common Stock.

2.2 Payment of Liquidation Preferences. Subject to the provisions of Part 6 hereof, all amounts to be paid as Liquidation Preference to the holders of Series 7 Class G Preferred Stock, as provided in this Part 2, shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any of the Corporation's property to the holders of the Corporation's Common Stock, whether now or hereafter authorized, in connection with such liquidation, dissolution or winding up.

2.3 No Rights After Payment. After the payment to the holders of the shares of the Series 7 Class G Preferred Stock of the full Liquidation Preference amounts provided for in this Part 2, the holders of the Series 7 Class G Preferred Stock as such shall have no right or claim to any of the remaining assets of the Corporation.

2.4 Assets Insufficient to Pay Full Liquidation Preference. In the event that the assets of the Corporation available for distribution to the holders of shares of the Series 7 Class G Preferred Stock upon any dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, shall be insufficient to pay in full all amounts to which such holders are entitled pursuant to this Part 2, no such distribution shall be made on account of any shares of any other class or series of Preferred Stock ranking on a parity with the shares of this Series 7 Class G Preferred Stock upon such dissolution, liquidation or winding up unless proportionate distributive amounts shall be paid on account of the shares of this Series 7 Class G Preferred Stock and shares of such other class or series ranking on a parity with the shares of this Series 7 Class G Preferred Stock, ratably, in proportion to the full distributable amounts for which holders of all such parity shares are respectively entitled upon such dissolution, liquidation or winding up.

### Part 3 - Dividends.

3.1 The holders of the Series 7 Class G Preferred Stock are entitled to receive if, when and as declared by the Board of Directors of the Corporation (the "Board") out of funds legally available therefor, cumulative annual dividends, payable in cash or Common Stock of the Corporation, par value \$.001 per share (the "Common Stock"), or any combination thereof, at the Corporation's election, at the rate of four percent (4%) per annum of the Liquidation Value (as defined below) of each issued and outstanding share of Series 7 Class G Preferred Stock (the "Dividend Rate"). The Liquidation Value of the Series 7 Class G Preferred Stock shall be \$1,000 per outstanding share of the Series 7 Class G Preferred Stock (the "Liquidation Value"). The dividend is payable semi-annually within seven (7) business days after each of December 31 and June 30 of each year, commencing December 31, 1997 (each, a "Dividend Declaration Date"). Dividends shall be paid only with respect to shares of Series 7 Class G Preferred Stock actually

issued and outstanding on a Dividend Declaration Date and to holders of record of the Series 7 Class G Preferred Stock as of the Dividend Declaration Date. Dividends shall accrue from the first day of the semi-annual period in which such dividend may be payable, except with respect to the first semi-annual dividend which shall accrue from the date of issuance of the Series 7 Class G Preferred Stock. In the event that the Corporation elects to pay the accrued dividends due as of a Dividend Declaration Date on an outstanding share of the Series 7 Class G Preferred Stock in Common Stock of the Corporation, the holder of such share shall receive that number of shares of Common Stock of the Corporation equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Corporation's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing sale price if listed on a national securities exchange, for the five (5) trading days immediately prior to the Dividend Declaration Date (the "Stock Dividend Price"), times (b) a fraction, the numerator of which is the number of days elapsed during the period for which the dividend is to be paid, and the denominator of which is 365. Dividends on the Series 7 Class G Preferred Stock shall be cumulative, and no dividends or other distributions shall be paid or declared or set aside for payment on the Corporation's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 7 Class G Preferred Stock shall have been paid or declared and set aside for payment.

Part 4 - Conversion. The holders of the Series 7 Class G Preferred Stock shall have rights to convert the shares of Series 7 Class G Preferred Stock into shares of the Corporation's Common Stock, as follows (the "Conversion Rights"):

4.1 Right to Convert. The Series 7 Class G Preferred Stock shall be convertible into shares of Common Stock, as follows:

4.1.1 Up to one hundred seventy-five (175) shares of Series 7 Class G Preferred Stock may be converted at the Conversion Price (as that term is defined in Section 4.2 below) at any time on or after November 3, 1997; and,

4.1.2 Up to an additional one hundred seventy-five (175) shares of Series 7 Class G Preferred Stock may be converted at the Conversion Price at any time on or after December 3, 1997.

4.2 Conversion Price. Subject to the terms hereof, as used herein, the Conversion Price per outstanding share of Series 7 Class G Preferred Stock shall be \$1.8125 except that, in the event the average closing bid price per share of the Common Stock for 20 of any 30 consecutive trading days (a "30 Day Period") after March 1, 1998 shall be less than \$2.50 as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange and if the holders of the Series 7 Class G Preferred Stock have engaged in no sales of Common Stock of the Company during, and for 30 trading days prior to, the applicable 30 Day Period, the Conversion Price shall thereafter be the product of the lesser of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five trading days immediately preceding the date of the Conversion Notice referred to in Section 4.3 below multiplied

by eighty percent (80%) or (ii) \$1.8125. Notwithstanding the foregoing, the Conversion Price shall not be less than a minimum of \$.75 per share ("Minimum Conversion Price"), which Minimum Conversion Price shall be eliminated from and after September 6, 1998. If any of the outstanding shares of Series 7 Class G Preferred Stock are converted, in whole or in part, into Common Stock pursuant to the terms of this Part 4, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a) the aggregate Liquidation Value of the Series 7 Class G Preferred Stock so surrendered for conversion by (b) the Conversion Price as of such conversion. At the time of conversion of shares of the Series 7 Class G Preferred Stock, the Corporation shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to the date of conversion, or, at the Corporation's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of whole shares of Common Stock which is equal to the quotient of the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 7 Class G Preferred Stock so converted divided by the Stock Dividend Price, as defined in Part 3 hereof, in effect at the date of conversion.

4.3 Mechanics of Conversion. Any holder of the Series 7 Class G Preferred Stock who wishes to exercise its Conversion Rights pursuant to Section 4.1 of this Part 4 must surrender the certificate therefor at the principal executive office of the Corporation, and give written notice, which may be via facsimile transmission, to the Corporation at such office that it elects to convert the same (the "Conversion Notice"). No Conversion Notice with respect to any shares of Series 7 Class G Preferred Stock can be given prior to the time such shares of Series 7 Class G Preferred Stock are eligible for conversion in accordance with the provision of Section 4.1 above, except as provided in Section 4.4. Any such premature Conversion Notice shall automatically be null and void. The Corporation shall, within seven (7) business days after receipt of an appropriate and timely Conversion Notice (and certificate, if necessary), issue to such holder of Series 7 Class G Preferred Stock or its agent a certificate for the number of shares of Common Stock to which he shall be entitled; it being expressly agreed that until and unless the holder delivers written notice to the Corporation to the contrary, all shares of Common Stock issuable upon conversion of the Series 7 Class G Preferred Stock hereunder are to be delivered by the Corporation to a party designated in writing by the holder in the Conversion Notice for the account of the holder and such shall be deemed valid delivery to the holder of such shares of Common Stock. Such conversion shall be deemed to have been made only after both the certificate for the shares of Series 7 Class G Preferred Stock to be converted have been surrendered and the Conversion Notice is received by the Corporation (the "Conversion Documents"), and the person or entity whose name is noted on the certificate evidencing such shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock at and after such time. In the event that the Conversion Notice is sent via facsimile transmission, the Corporation shall be deemed to have received such Conversion Notice on the first business day on which such facsimile Conversion Notice is actually received.

4.4 Merger or Consolidation. In case of either (a) any merger or

consolidation to which the Corporation is a party (collectively, the "Merger"), other than a Merger in which the Corporation is the surviving or continuing corporation, or (b) any sale or conveyance to another corporation of all, or substantially all, of the assets of the Corporation (collectively, the "Sale"), and such Merger or Sale becomes effective (x) while any shares of Series 7 Class G Preferred Stock are outstanding and prior to the date that the Corporation's Registration Statement covering up to 200,000 shares of Common Stock issuable upon the conversion of the Series 7 Class G Preferred Stock is declared effective by the U. S. Securities and Exchange Commission or (y) prior to the end of the restriction periods in Section 4.1, then, in such event, the Corporation or such successor corporation, as the case may be, shall make appropriate provision so that the holder of each share of Series 7 Class G Preferred Stock then outstanding shall have the right to convert such share of Series 7 Class G Preferred Stock into the kind and amount of shares of stock or other securities and property receivable upon such Merger or Sale by a holder of the number of shares of Common Stock into which such shares of Series 7 Class G Preferred Stock could have been converted into immediately prior to such Merger or Sale, subject to adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Part 4.

4.5 Adjustments to Conversion Price for Stock Dividends and for Combinations or Subdivisions of Common Stock. If the Corporation at any time or from time to time while shares of Series 7 Class G Preferred Stock are issued and outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the Conversion Price in effect immediately before such event shall, concurrently with the effectiveness of such event, be proportionately decreased or increased, as appropriate.

4.6 Adjustments for Reclassification and Reorganization. If the Common Stock issuable upon conversion of the Series 7 Class G Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for in Section 4.4 hereof), the Conversion Price then in effect shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted so that the Series 7 Class G Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders of Series 7 Class G Preferred Stock would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of the Series 7 Class G Preferred Stock immediately before that change.

4.7 Common Stock Duly Issued. All Common Stock which may be

issued upon conversion of Series 7 Class G Preferred Stock will, upon issuance, be duly issued, fully paid and nonassessable and free from all taxes, liens, and charges with respect to the issue thereof.

4.8 Notice of Adjustments. Upon the occurrence of each adjustment or readjustment of any Conversion Price pursuant to this Part 4, the Corporation, at its expense, within a reasonable period of time, shall compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Series 7 Class G Preferred Stock a notice setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment is based.

4.9 Issue Taxes. The Corporation shall pay any and all issue and other taxes that may be payable in respect of any issue or delivery of shares of Common Stock on conversion of the Series 7 Class G Preferred Stock pursuant thereto; provided, however, that the Corporation shall not be obligated to pay any transfer taxes resulting from any transfer requested by any holder of Series 7 Class G Preferred Stock in connection with such conversion.

4.10 Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series 7 Class G Preferred Stock, such number of its shares of Common Stock as shall, from time to time, be sufficient to effect the conversion of all outstanding shares of the Series 7 Class G Preferred stock, and, if at any time, the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series 7 Class G Preferred Stock, the Corporation will take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in reasonable efforts to obtain the requisite stockholder approval of any necessary amendment to its Certificate of Incorporation.

4.11 Fractional Shares. No fractional shares shall be issued upon the conversion of any share or shares of Series 7 Class G Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series 7 Class G Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of a fractional share of Common Stock, such fractional share shall be rounded up to the nearest whole share.

4.12 Notices. Any notices required by the provisions of this Part 4 to be given to the holders of shares of Series 7 Class G Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of the Corporation.

4.13 Business Day. As used herein, the term "business day" shall mean any day other than a Saturday, Sunday or a day when the federal and state banks located in the State of New York are



required or is permitted to close.

## Part 5 - Redemption.

5.1 Redemption at Corporation's Option. Except as otherwise provided in this Section 5.1, at any time, and from time to time, after the expiration of one (1) year from the date of the first issuance of the Series 7 Class G Preferred Stock, the Corporation may, at its sole option, but shall not be obligated to, redeem, in whole or in part, at any time, and from time to time, the then outstanding Series 7 Class G Preferred Stock at the following cash redemption prices per share (the "Redemption Price") if redeemed during the following periods: (a) within four (4) years from the date of the first issuance of Series 7 Class G Preferred Stock - \$1,300 per share, if at any time during such four (4) year period the average of the closing bid price of the Common Stock for ten (10) consecutive trading days shall be in excess of Four U.S. Dollars (\$4.00) per share, and (b) after four (4) years from the date of the first issuance of Series 7 Class G Preferred Stock - \$1,000 per share.

5.2 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Corporation for the redemption of Series 7 Class G Preferred Stock (the "Redemption Date"), written notice (the "Redemption Notice") shall be mailed to each holder of record on such notice date of the Series 7 Class G Preferred Stock. The Redemption Notice shall state: (i) the Redemption Date of such shares, (ii) the number of Series 7 Class G Preferred Stock to be redeemed from the holder to whom the Redemption Notice is addressed, (iii) instructions for surrender to the Corporation, in the manner and at the place designated, of a share certificate or share certificates representing the number of Series 7 Class G Preferred Stock to be redeemed from such holder, and (iv) instructions as to how to specify to the Corporation the number of Series 7 Class G Preferred Stock to be redeemed as provided in this Part 5.

5.3 Rights of Conversion Upon Redemption. If the redemption occurs after the first one hundred eighty (180) days after the first issuance of Series 7 Class G Preferred Stock, then, upon receipt of the Redemption Notice, any holder of Series 7 Class G Preferred Stock shall have the option, at its sole election, to specify what portion of its Series 7 Class G Preferred Stock called for redemption in the Redemption Notice shall be redeemed as provided in this Part 5 or converted into Common Stock in the manner provided in Part 4 hereof.

5.4 Surrender of Certificates. On or before the Redemption Date in respect of any Series 7 Class G Preferred Stock, each holder of such shares shall surrender the required certificate or certificates representing such shares to the Corporation in the manner and at the place designated in the Redemption Notice, and upon the Redemption Date, the Redemption Price for such shares shall be made payable, in the manner provided in Section 5.6 hereof, to the order of the person whose name appears on such certificate or certificates as the owner thereof. If a share certificate is surrendered and all the shares evidenced thereby are not being redeemed (as described below), the Corporation shall cause the Series 7 Class G Preferred Stock which are not being redeemed to be registered in the names of the persons or entity whose names appear as the owners on the respective surrendered share certificates

and deliver such certificate to such person.

5.5 Payment. On the Redemption Date in respect of any Series 7 Class G Preferred Stock or prior thereto, the Corporation shall deposit with any bank or trust company having a capital and surplus of at least U. S. \$50,000,000, as a trust fund, a sum equal to the aggregate Redemption Price of all such shares called from redemption (less the aggregate Redemption Price for those Series 7 Class G Preferred Stock in respect of which the Corporation has received notice from the holder thereof of its election to convert Series 7 Class G Preferred Stock into Common Stock), with irrevocable instructions and authority to the bank or trust company to pay, on or after the Redemption Date, the Redemption Price to the respective holders upon the surrender of their share certificates. The deposit shall constitute full payment for the shares to their holders, and from and after the date of the deposit the redeemed shares shall be deemed to be no longer outstanding, and holders thereof shall cease to be shareholders with respect to such shares and shall have no rights with respect thereto except the rights to receive from the bank or trust company payments of the Redemption Price of the shares, without interest, upon surrender of their certificates thereof. Any funds so deposited and unclaimed at the end of one year following the Redemption Date shall be released or repaid to the Corporation, after which the former holders of shares called for redemption shall be entitled to receive payment of the Redemption Price in respect of their shares only from the Corporation.

#### Part 6 - Parity with Other Shares of Series 7 Class G Preferred Stock and Priority.

6.1 Rateable Participation. If any cumulative dividends or return of capital in respect of Series 7 Class G Preferred Stock are not paid in full, the owners of all series of outstanding Preferred Stock shall participate rateably in respect of accumulated dividends and return of capital.

6.2 Ranking. For purposes of this resolution, any stock of any class or series of the Corporation shall be deemed to rank:

6.2.1 Prior or senior to the shares of this Series 7 Class G Preferred Stock either as to dividends or upon liquidation, if the holders of such class or classes shall be entitled to the receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of this Series 7 Class G Preferred Stock;

6.2.2 On a parity with, or equal to, shares of this Series 7 Class G Preferred Stock, either as to dividends or upon liquidation, whether or not the dividend rates, dividend payment dates, or redemption or liquidation prices per share or sinking fund provisions, if any, are different from those of this Series 7 Class G Preferred Stock, if the holders of such stock are entitled to the receipt of dividends or of amounts distributable upon dissolution,

liquidation or winding up of the Corporation, whether voluntary or involuntary, in proportion to their respective dividend rates or liquidation prices, without preference or priority, one over the other, as between the holders of such stock and over the other, as between the holders of such stock and the holders of shares of this Series 7 Class G Preferred Stock; and,

6.2.3 Junior to shares of this Series 7 Class G Preferred Stock, either as to dividends or upon liquidation, if such class or series shall be Common Stock or if the holders of shares of this Series 7 Class G Preferred Stock shall be entitled to receipt of dividends or of amounts distributable upon dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, as the case may be, in preference or priority to the holders of shares of such class or series.

Part 7 - Reissue.

7.1 Authorized. Any shares of Series 7 Class G Preferred Stock acquired by the Corporation by reason of purchase, conversion, redemption or otherwise shall be retired and shall become authorized but unissued shares of Preferred Stock, which may be reissued as part of a new series of Preferred Stock hereafter created.

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Exhibit "A" - Certificate of Designations  
Exhibit "B" - Common Stock Purchase Warrant

THIS EXCHANGE AGREEMENT (the "Agreement") is effective as of the 16th day of September, 1997, by and between PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation, having offices at 1940 Northwest 67th Place, Gainesville, Florida 32653 (the "Company"), and THE INFINITY FUND, L.P., a Georgia limited partnership, and having its principal offices at 3 Piedmont Center, Suite 210, Atlanta, Georgia 30305 (the "Subscriber").

W I T N E S S E T H:

WHEREAS, the Subscriber and the Company have previously entered into a certain Subscription and Purchase Agreement dated as of the 7th day of July, 1997 ("Previous Agreement") under which 350 shares of "Series 5 Class E Convertible Preferred Stock" (the "Series 5 Preferred") were issued to the Subscriber in the form of one Series 5 Preferred certificate;

WHEREAS, the Company and the Subscriber both desire to enter into this Agreement, under which the Series 5 Preferred will be delivered and tendered to the Company in exchange for (the "Exchange") of (i) an aggregate of 350 shares of a new series of convertible preferred stock, par value \$.001 per share, to be designated by the Company's Board of Directors as "Series 7 Class G Convertible Preferred Stock" (the "Series 7 Preferred"), with such Series 7 Preferred containing such terms, conditions, restrictions and provisions as set forth in the Series 7 Preferred Certificate of Designations ("Certificate of Designations") attached hereto as Exhibit "A," and (ii) an aggregate of 35,000 common stock purchase warrants (a "Warrant" and collectively, the "Warrants"), with each common stock purchase warrant providing for the purchase of one share of the Company's Common Stock, at the exercise prices set forth herein (the Series 7 Preferred and the Warrants are collectively referred to herein from time to time as the "Securities");

WHEREAS, the Company and the Subscriber each desire that the Exchange and the execution of the Agreement act to fully and completely terminate the Subscriber's rights under the Previous Agreement and the Series 5 Preferred and will act to fully and completely release all obligations of the Company to the Subscriber under the Previous Agreement and the Series 5 Preferred;

WHEREAS, the Common Stock is listed for trading on the Boston Stock Exchange and the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), and the Company is subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and has been subject to such filing requirements for the past ninety (90) days;

WHEREAS, the Subscriber is an "accredited investor" as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act of 1933, as amended (the "Securities Act");

WHEREAS, the principal place of business of the Subscriber is located in Atlanta, Georgia;

WHEREAS, in order to induce the Subscriber to enter into this Agreement and to subscribe for and purchase the Securities on the terms and subject to the conditions hereof, the Company is granting certain registration rights under the Agreement with respect to the Common Stock issuable upon the conversion of the Series 7 Preferred and the Common Stock issuable upon the exercise of the Warrants;

WHEREAS, in reliance upon the representations made by the Subscriber in this Agreement, the transactions contemplated by this Agreement are such that the exchange of securities by the Company hereunder will be exempt from registration under applicable federal (U.S.) and state securities laws since this is an exchange offer pursuant to Section 3(a)(9) of the Securities Act, and it is a private placement and intended to be a nonpublic offering pursuant to Sections 4(2) and/or 3(b) of the Securities Act and/or Regulation D promulgated under the Securities Act; and,

WHEREAS, the Securities to be sold in accordance with this Agreement will not be quoted or listed for trading on any securities exchange, organized market or quotation system at the time of acquisition hereunder.

NOW, THEREFORE, for and in consideration of the premises, and the mutual representations, warranties, covenants and agreements set forth herein, and for other good and valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Subscription for Purchase of Securities.

1.1 Issuance of Common Stock and Warrants. In full and complete satisfaction of the Previous Agreement and the Series 5 Preferred and in full and complete termination of the Subscriber's rights under the Previous Agreement and the Series 5 Preferred and in full and complete release of all obligations of the Company to the Subscriber under the Previous Agreement and the Series 5 Preferred, the Subscriber hereby delivers the Series 5 Preferred to the Company in exchange for 350 shares of Series 7 Preferred and the Warrants to purchase up to 35,000 shares of Common Stock upon the terms and conditions set forth in this Agreement and the Warrants, with such Warrants containing the terms and conditions as stated herein.

1.1.1 Delivery. Upon receipt by the Company of the Series 5 Preferred to be cancelled, the Company shall cause to be delivered: (a) to the Subscriber, c/o Bear Stearns & Co., 55 Water Street, Third Floor, Concourse Level, South Building, New York, New York 10040-0082, a certificate or certificates representing the 350 shares of Series 7 Preferred received by the Subscriber, in such denominations as Subscriber requests in writing; and (b) to the Subscriber, (i) written evidence from the Secretary of State of the State of Delaware that the Certificate of Designations has been filed in the Office of the Secretary of State

of the State of Delaware on or before the Closing Date; (ii) a Warrant, dated the Closing Date, entitling the Subscriber to purchase after December 31, 1997, an aggregate of up to 35,000 Warrant Shares at an exercise price equal to \$1.8125 per share ("Warrant"). If at any time the Warrant Shares are covered by an effective registration statement filed with the SEC and the average closing bid price of the Common Stock for ten (10) consecutive trading days shall be in excess of \$7.00 with respect to the Warrant, then the Company shall have the option to redeem the Warrants for an amount equal to one cent (\$0.01) per Warrant Share covered by the Warrants. Each Warrant will have an expiration date of July 7, 2000.

1.1.2 Cancellation of Series 5 Preferred. The Previous Agreement and Series 5 Preferred are hereby terminated and rendered null and void in all respects. The Subscriber shall deliver the Series 5 Preferred to the Company for cancellation.

1.1.3 Restrictive Legends. Subscriber agrees that, subject to the provisions of Section 5 below, all certificates representing the Securities shall bear the restrictive legend substantially in the form set forth in Section 7 below which shall include, but not be limited to, a legend to the effect that (a) the Securities represented by such certificate have not been registered under the Securities Act, and (b) unless there is an effective registration statement relating to the Securities, the Securities may not be offered, sold, transferred, mortgaged, pledged or hypothecated without an exemption from registration and an opinion of counsel to the Company with respect thereto, or an opinion from counsel for the Subscriber, which opinion is satisfactory to the Company, to the effect that registration under the Securities Act is not required in connection with such sale or transfer and the reasons therefor. The legend on all such certificates shall make reference to the registration rights set forth in Section 5 hereof.

1.2 Discharge. The Previous Agreement, and Series 5 Preferred are hereby fully terminated in all respects. The Subscriber hereby releases, acquits and forever discharges the Company, and all of its respective subsidiaries, affiliates, agents, employees, officers, and directors, as well as their respective heirs, suc-

cessors, legal and personal representatives, and assigns of any and all of them, from and against any and all claims, liabilities, losses, damages, cause or causes of action of any kind or character whatsoever, whether liquidated, unliquidated or disputed, asserted or assertable, known or unknown, in contract or in tort, at law or in equity, which the Subscriber might now or hereafter have arising out of or in connection with or

relating to the Previous Agreement and the Series 5 Preferred.

1.3 Exchange. On the basis of the representations, warranties, covenants and agreements, and subject to the terms and conditions set forth herein, on the Closing Date, the Company agrees to exchange and deliver to the Subscriber, and the Subscriber agrees to accept in such exchange the delivery from the Company, of the Securities in exchange for the transfer of the Series 5 Preferred ("Purchase Price") from the Subscriber to the Company.

1.4 Reporting Company. Although the Securities, the shares of Common Stock issuable upon conversion of the Series 7 Preferred (the "Conversion Shares") and the shares of Common Stock issuable upon exercise of the Warrants (the "Warrant Shares") shall not be registered as of the Closing under federal or state securities laws or any rules or regulations promulgated thereunder, the Company is reporting company under the Exchange Act and has filed with the Securities and Exchange Commission (the "SEC") all reports required to be filed by the Company under Section 13 or 15(d) of the Exchange Act. The Subscriber has had the opportunity to review, and has reviewed, all such reports and information which the Subscriber deemed material to an investment decision regarding the purchase of the Securities.

1.5 Terms of the Series 7 Preferred. The Series 7 Preferred shall contain and be subject to the terms, conditions, preferences and restrictions set forth in the Certificate of Designations attached hereto as Exhibit "A," ("Certificate of Designations"), including, but not limited to Section 4.2 thereof, the right to convert the Series 7 Preferred into Common Stock of the Company based on a Conversion Price per outstanding share of Series 7 Preferred of \$1.8125 except that, in the event the average closing bid price per share of the Common Stock for 20 of any 30 consecutive trading days (a "30 Day Period") after March 1, 1998 shall be less than \$2.50 as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange and if the holders of the Series 7 Preferred have engaged in no sales of Common Stock of the Company during, and for 30 trading days prior to, the applicable 30 Day Period, the Conversion Price shall thereafter be the product of the lesser of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five trading days immediately preceding the date of the conversion notice, provided by the Subscriber to the Company multiplied by eighty percent (80%) or (ii) \$1.8125. Notwithstanding the foregoing, the Conversion Price shall not be less than a minimum of \$.75 per share ("Minimum Conversion Price"), which Minimum Conversion Price shall be eliminated from and after September 6, 1998. If any of the outstanding shares of Series 7 Preferred are converted, in whole or in part, into Common Stock pursuant to the terms set forth in the Series 7 Preferred Certificate of Designations, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a)



the aggregate Liquidation Value (being \$1,000 times the number of shares of Series 7 Preferred surrendered for conversion) of the Series 7 Preferred so surrendered for conversion by (b) the Conversion Price as of such conversion. At the time of conversion of shares of the Series 7 Preferred, the Company shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to the date of conversion, or, at the Company's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of whole shares of Common Stock which is equal to the quotient of the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 7 Preferred so converted divided by the Stock Dividend Price, as defined in the Series 7 Preferred Certificate of Designations, in effect at the date of conversion.

1.6 Terms of the Warrants. The Warrants will be substantially in the form attached hereto as Exhibit "B," subject to the terms, and with the date and exercise price of such Warrants to be as set forth herein.

## 2. Closing.

2.1 Closing. The consummation of this Agreement (the "Closing") will occur on September 16, 1997 (the "Closing Date"), at the offices of the Company or at such other mutually convenient time or at such other mutually convenient place as agreed upon by the parties.

## 3. Representations, Warranties and Covenants of Subscriber. The Subscriber hereby represents, warrants and covenants to the Company as follows:

3.1 Investment Intent. The Subscriber represents and warrants that the Securities are being, and any underlying Conversion Shares and Warrant Shares will be, purchased or acquired solely for the Subscriber's own account, for investment purposes only and not with a view toward the distribution or resale to others. The Subscriber acknowledges, understands and appreciates that the Securities have not been registered under the Securities Act by reason of a claimed exemption under the provisions of the Securities Act which depends, in large part, upon the Subscriber's representations as to investment intention, investor status, and related and other matters set forth herein. Subscriber understands that, in the view of the United States Securities and Exchange Commission (the "SEC"), among other things, a purchase now with an intent to distribute or resell would represent a purchase and acquisition with an intent inconsistent with its representation to the Company, and the SEC might regard such a transfer as a deferred sale for which the registration exemption is not available.

3.2 Certain Risk. The Subscriber recognizes that the purchase of the Securities involves a high degree of risk in that (a) the Company has sustained losses through June 30, 1997, from its operations, and may require substantial funds in addition to the proceeds of this private placement; (b) that the Company has a substantial accumulated deficit; (c) an investment in the Company is highly speculative and only investors who can afford the

loss of their entire investment should consider investing in the Company and the Securities; (d) an investor may not be able to liquidate his investment; (e) transferability of the Securities is extremely limited; (f) in the event of a disposition an investor could sustain the loss of his entire investment; (g) the Securities represent non-voting equity securities, and the right to convert into and purchase shares of voting equity securities in a corporate entity that has an accumulated deficit; (h) no return on investment, whether through distributions, appreciation, transferability or otherwise, and no performance by, through or of the Company, has been promised, assured, represented or warranted by the Company, or by any director, officer, employee, agent or representative thereof; and, (i) while the Common Stock is presently quoted and traded on the Boston Stock Exchange and the Nasdaq SmallCap Market and while the Subscriber is a beneficiary of certain registration rights provided herein, the Securities subscribed for and that are purchased under this Agreement, the Conversion Shares, and the Warrant Shares (i) are not registered under applicable federal (U. S.) or state securities laws, and thus may not be sold, conveyed, assigned or transferred unless registered under such laws or unless an exemption from registration is available under such laws, as more fully described herein, and (ii) the Securities subscribed for and that are to be purchased under this Agreement are not quoted, traded or listed for trading or quotation on the NASDAQ, or any other organized market or quotation system, and there is therefore no present public or other market for the Securities, nor can there be any assurance that the Common Stock of the Company will continue to be quoted, traded or listed for trading or quotation on the Boston Stock Exchange or the Nasdaq SmallCap Market or on any other organized market or quotation system.

3.3 Prior Investment Experience. The Subscriber acknowledges that it has prior investment experience, including investment in non-listed and non-registered securities, or has employed the services of an investment advisor, attorney or accountant to read all of the documents furnished or made available by the Company to it and to evaluate the merits and risks of such an investment on its behalf, and that it recognizes the highly speculative nature of this investment.

3.4 No Review by the SEC. The Subscriber hereby acknowledges that this offering of the Securities has not been reviewed by the SEC because this private placement is intended to be an exchange offer under Section 3(a)(9) of the Securities Act and a nonpublic offering pursuant to Sections 4(2) and/or 3(b) of the Securities Act and/or Regulation D promulgated under the Securities Act.

3.5 Not Registered. The Subscriber understands that the Securities, the Conversion Shares and the Warrant Shares have not been registered under the Securities Act by reason of a claimed exemption under the provisions of the Securities Act which depends, in part, upon the Subscriber's investment intention. In this connection, the Subscriber understands that it is the position of the SEC that the statutory basis for such exemption would not

be present if its representation merely meant that its present intention was to hold such securities for a short period, such as the capital gains period of tax statutes, for a deferred sale, for a market rise (assuming that a market develops), or for any other fixed period.

3.6 No Public Market. The Subscriber understands that there is no public market for the Series 7 Preferred or the Warrants. The Subscriber understands that although there is presently a public market for the Common Stock, including the Common Stock issuable upon conversion of the Series 7 Preferred or exercise of the Warrants, Rule 144 (the "Rule") promulgated under the Securities Act requires, among other conditions, a one-year holding period following full payment of the consideration therefor prior to the resale (in limited amounts) of securities acquired in a nonpublic offering without having to satisfy the registration requirements under the Securities Act. The Subscriber understands that the Company makes no representation or warranty regarding its fulfillment in the future of any reporting requirements under the Exchange Act, or its dissemination to the public of any current financial or other information concerning the Company, as is required by the Rule as one of the conditions of its availability. The Subscriber understands and hereby acknowledges that the Company is under no obligation to register the Securities or the Conversion Shares or the Warrant Shares under the Securities Act, except as set forth in Section 5 hereof. The Subscriber agrees to hold the Company and its directors, officers and controlling persons and their respective heirs, representatives, successors and assigns harmless and to indemnify them against all liabilities, costs and expenses incurred by them as a result of any misrepresentation made by the Subscriber contained herein or any sale or distribution by the Subscriber in violation of the Securities Act or any applicable state securities or "blue sky" laws (collectively, "Securities Laws").

3.7 Sophisticated Investor. That (a) the Subscriber is an "accredited investor," as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act, and has total assets in excess of \$5,000,000; (b) the Subscriber is able to bear the economic risks inherent in an investment in the Securities and that an important consideration bearing on its ability to bear the economic risk of the purchase of Securities is whether the Subscriber can afford a complete loss of the Subscriber's investment in the Securities and the Subscriber represents and warrants that the Subscriber can afford such a complete loss; and (c) the Subscriber has such knowledge and experience in business, financial, investment and banking matters (including, but not limited to, investments in restricted, non-listed and non-registered securities) that the Subscriber is capable of evaluating the merits, risks and advisability of an investment in the Securities.

3.8 Tax Consequences. The Subscriber acknowledges that the Company has made no representation regarding the potential or actual tax consequences for the Subscriber which will result from entering into the Agreement and from consummation of the Exchange. The Subscriber

acknowledges that it bears complete responsibility for obtaining adequate tax advice regarding the Agreement and the Exchange.

3.9 SEC Filing. The Subscriber acknowledges that it has been previously furnished with true and complete copies of the following documents which have been filed with the SEC pursuant to Sections 13(a), 14(a), 14(c) or 15(d) of the Exchange Act since January 1, 1997, and that such have been furnished to the Subscriber a reasonable time prior to the date hereof: (a) the Company's Form 10-K for the year ended December 31, 1996; (b) the Company's Form 10-Q for the quarter ended March 31, 1997; (c) the Company's Form 10-Q for the quarter ended June 30, 1997, and (d) the Company's Form 8-K, date of event reported: June 11, 1997, as amended by the Company's Form 8-K/A, dated June 25, 1997.

3.10 Documents, Information and Access. The Subscriber's decision to purchase the Securities is not based on any promotional, marketing or sales materials, and the Subscriber and its representatives have been afforded, prior to purchase thereof, the opportunity to ask questions of, and to receive answers from, the Company and its management, and has had access to all documents and information which Subscriber deems material to an investment decision with respect to the purchase of Securities hereunder.

3.11 No Registration, Review or Approval. The Subscriber acknowledges and understands that the private offering and sale of Securities pursuant to this Agreement has not been reviewed or approved by the SEC or by any state securities commission, authority or agency, and is not registered under the Securities Laws. The Subscriber acknowledges, understands and agrees that the Shares are being exchanged hereunder pursuant to (i) an exchange offer exemption under Section 3(a)(9) of the Securities Act and (ii) (x) a private placement exemption to the registration provisions of the Securities Act pursuant to Section 3(b) and/or Section 4(2) of such Securities Act and/or Regulation D promulgated under the Securities Act) and (y) a similar exemption to the registration provisions of applicable state securities laws.

3.12 Transfer Restrictions. That Subscriber will not transfer any Securities purchased under this Agreement or any Conversion Shares or Warrant Shares purchased under this Agreement unless such Series 7 Preferred, Conversion Shares, or Warrant Shares, whichever is applicable, are registered under the Securities Laws, or unless an exemption is available under such Securities Laws, and the Company may, if it chooses, where an exemption from registration is claimed by such Subscriber, condition any transfer of Securities, Conversion Shares or Warrant Shares out of the Subscriber's name on an opinion of the Company's counsel, to the effect that the proposed transfer is being effected in accordance with, and does not violate, an applicable exemption from registration under the Securities Laws, or an opinion of counsel to the Subscriber, which opinion is satisfactory to the Company, to the effect that registration under the Securities Act is not required in connection with such

sale or transfer and the reasons therefor.

3.13 No Short Sale. The Subscriber expressly agrees that until such time that it has sold all of the Securities and/or all of the Conversion Shares and Warrant Shares that it shall not, directly or indirectly, through an affiliate (as that term is defined under Rule 405 promulgated under the Securities Act) or by, with or through an unrelated third party or entity, whether or not pursuant to a written or oral understanding, agreement, arrangement, scheme, or artifice of nature whatsoever, engage in the short selling of the Company's Common Stock or any other equity securities of the Company, whether now existing or hereafter issued, or engage in any other activity of any nature whatsoever that has the same effect as a short sale, or is a de facto or de jure short sale, of the Company's Common Stock or any other equity security of the Company, whether now existing or hereafter issued, including, but not limited to, the sale of any rights pursuant to any understanding, agreement, arrangement, scheme or artifice of any nature whatsoever, whether oral or in writing, relative to the Company's Common Stock or any other equity securities of the Company whether now existing or hereafter created. The Subscriber agrees that it will not engage, and will cause its affiliates not to engage, in any activity designed to reduce the price of the Company's Common Stock, as quoted on the Boston Stock Exchange or the NASDAQ, in connection with the Subscriber's conversion of any of the Series 7 Preferred. The Subscriber agrees to refrain, and cause its affiliates to refrain, from engaging in, or inducing others to engage in, any activity relating to the Company or Common Stock of the Company that is proscribed under Regulation M promulgated under the Exchange Act.

3.14 Reliance. The Subscriber understands and acknowledges that the Company is relying upon all of the representations, warranties, covenants, understandings, acknowledgements and agreements contained in this Agreement in determining whether to accept this subscription and to sell and issue the Securities to the Subscriber.

3.15 Accuracy or Representations and Warranties. All of the representations, warranties, understandings and acknowledgments that Subscriber has made herein are true and correct in all material respects as of the date of execution hereof. The Subscriber will perform and comply fully in all material respects with all covenants and agreements set forth herein, and the Subscriber covenants and agrees that until the acceptance of this Agreement by the Company, the Subscriber shall inform the Company immediately in writing of any changes in any of the representations or warranties provided or contained herein.

3.16 Indemnity. The Subscriber hereby agrees to indemnify and hold harmless the Company, and the Company's successors and assigns, from, against and in all respects of any demands, claims, actions or causes of action, assessments, liabilities, losses, costs, damages, penalties, charges, fines or expenses (including, without limitation, interest, penalties, and attorney and

accountants' fees, disbursements and expenses), arising out of or relating to any breach by Subscriber of any representations, warranty, covenant or agreement made by Subscriber in this Agreement. Such right to indemnification shall be in addition to any and all other rights of the Company under this Agreement or otherwise, at law or in equity.

3.17 Survival. The Subscriber expressly acknowledges and agrees that all of its representations, warranties, agreements and covenants set forth in this Agreement shall be of the essence hereof and shall survive the execution, delivery and Closing of this Agreement, the sale and purchase of the Securities, the conversion of the Series 7 Preferred, exercise of the Warrants, and the sale of the Conversion Shares and the Warrant Shares.

4. Representations, Warranties and Covenants of the Company. In order to induce Subscriber to enter into this Agreement and to exchange the Series 5 Preferred for the Securities, the Company hereby represents, warrants and covenants to Subscriber as follows:

4.1 Organization, Authority, Qualification. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware. The Company has full corporate power and authority to own and operate its properties and assets and to conduct and carry on its business as it is now being conducted and operated.

4.2 Authorization. The Company has full power and authority to execute and deliver this Agreement and to perform its obligations under and consummate the transactions contemplated by this Agreement. Upon the execution of this Agreement by the Company and delivery of the Securities, this Agreement shall have been duly and validly executed and delivered by the Company and shall constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms.

4.3 Ownership of, and Title to, Securities. The Securities to be purchased by the Subscriber are, and all Conversion Shares and Warrant Shares, when issued, will be, duly authorized, validly issued, fully paid and nonassessable shares of the capital stock of the Company, free of personal liability. Upon consummation of the purchase of the Securities (and upon the exercise of the Warrants and conversion of the Series 7 Preferred, in whole or in part) pursuant to this Agreement, the Subscriber will own and acquire title to the Securities (and the Warrant Shares and the Conversion Shares, as the case may be) free and clear of any and all proxies, voting trusts, pledges, options, restrictions, or other legal or equitable encumbrance of any nature whatsoever (other than the restrictions on transfer due to Securities Laws or as otherwise provided for in this Agreement or the Certificate of Designation).

4.4 Exemption from Registration. The offer and exchange of Securities to the Subscriber in accordance with the terms and provisions of this Agreement is being effected in accordance with the Securities Act, pursuant to an

exchange offer exemption to the registration provision of the Securities Act pursuant to Section 3(a)(9) thereunder and to a private placement exemption to the registration provisions of the Act pursuant to Section 3(b) and/or 4(2) of such Act and/or Regulation D promulgated under the Securities Act, based on the representations, warranties and covenants made by the Subscriber contained in this Agreement.

5. Registration Rights. In order to induce the Subscriber to enter into this Agreement and purchase the Securities, the Company hereby covenants and agrees to grant to the Subscriber the rights set forth in this Section 5 with respect to the registration of the Warrant Shares and the Conversion Shares.

5.1 Registration. Subject to the terms of Section 5 hereof, the Company agrees that by October 27, 1997, it shall prepare and file with the SEC, a registration statement on Form S-3 or equivalent form (the "Registration Statement") and such other documents, including a prospectus, as may be necessary in the opinion of counsel for the Company in order to comply with the provisions of the Securities Act, so as to permit a public offering and sale by the Subscriber of up to 200,000 shares of Common Stock issuable upon conversion of the Series 7 Preferred, plus up to 36,000 shares of Common Stock, if any, issuable as payment of dividends on the Series 7 Preferred Stock pursuant to the terms of the Series 7 Preferred, and 35,000 shares of Common Stock issuable upon exercise of the Warrants. The Company shall use its reasonable efforts to cause such Registration Statement to become effective at the earliest possible date after filing. In connection with the offering of such Common Stock registered pursuant to this Section 5, the Company shall take such reasonable actions as it deems necessary to qualify the Common Stock issuable upon conversion of the Series 7 Preferred, the Common Stock issuable as payment of dividends on the Series 7 Preferred, and the Common Stock issuable upon exercise of the Warrant, covered by such Registration Statement under such "blue sky" or other state securities laws for offer and sale as shall be reasonably necessary to permit the public offering and sale of such shares of Common Stock covered by such Registration Statement; provided, however, that the Company shall not be required (a) to qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this subparagraph, (b) to subject itself to taxation in any such jurisdiction, or (c) to consent to general service of process in any such jurisdiction. It is expressly agreed that in no event are any registration rights being granted to the Series 7 Preferred itself, but only with respect to up to 200,000 shares of the underlying Conversion Shares issuable upon exercise of the Series 7 Preferred, up to 36,000 shares of Common Stock that the Company may issue in payment of dividends on the Series 7 Preferred, and up to 35,000 shares of the Warrant Shares issuable upon the exercise of the Warrants.

5.2 Current Registration Statement. Once effective, the Company shall use its reasonable efforts to cause such Registration Statement filed hereunder to remain current and effective for a period of two (2) years or until the Conversion Shares covered by such Registration Statement

are sold by the Subscriber, whichever is sooner. The Subscriber shall promptly provide all such information and materials and take all such action as may be required in order to permit the Company to comply with all applicable requirements of the SEC and to obtain any desired acceleration of the effective date of such registration statement.

5.3 Other Provisions. In connection with the offering of any Conversion Shares and/or Warrant Shares registered pursuant to this Section 5, the Company shall furnish to the Subscriber such number of copies of any final prospectus as it may reasonably request in order to effect the offering and sale of the Conversion Shares and/or Warrant Shares to be offered and sold under such Registration Statement. In connection with any offering of Conversion Shares and/or Warrant Shares registered pursuant to this Section 5, the Company shall (a) furnish to the underwriters (if any), at the Company's expense, unlegended certificates representing ownership of the Conversion Shares and/or Warrant Shares sold under such Registration Statement in such denominations as requested and (b) instruct any transfer agent and registrar of the Conversion Shares and/or Warrant Shares sold under such Registration Statement to release immediately any stop transfer order, and to remove any restrictive legend, with respect to such Conversion Shares and/or Warrant Shares included in any registration becoming effective pursuant to this Agreement upon the sale of such shares by the Subscriber.

5.4 Costs. Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the Registration Statement relating to the Conversion Shares and the Warrant Shares under this Section 5, including filing fees, fees, costs and disbursements of any counsel, accountants and other consultants representing the Company in connection therewith. Notwithstanding anything set forth herein to the contrary, Subscriber shall be responsible for and pay any and all underwriting discounts and commissions in connection with the sale of the Conversion Shares and/or Warrant Shares pursuant hereto or the Registration Statement and all fees of its legal counsel and other advisors retained in connection with reviewing such Registration Statement.

5.5 Successors. The Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business, properties, stock or assets of the Company, to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place.

## 6. Indemnification.

6.1 By the Company. Subject to the terms of this Section 6, the Company will indemnify and hold harmless the Subscriber, its directors and officers, and any underwriter (as defined in the Securities Act) for the



Subscriber and each person, if any, who controls the Subscriber or such underwriter within the meaning of the Act, from and against, and will reimburse the Subscriber and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement filed with the SEC pursuant to Section 5, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Subscriber, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

6.2 By the Subscriber. Subject to the terms of this Section 6, the Subscriber will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expense to which the Company or any controlling person and/or any underwriter may become subject under the Securities Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such Registration Statement filed with the SEC pursuant to Section 5, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on behalf of, the Subscriber specifically for use in the preparation thereof.

6.3 Procedure. Promptly after receipt by an indemnified party pursuant to the provisions of Section 6.1 or 6.2 of notice of the commencement of any action involving the subject matter of the foregoing indemnity provisions, such indemnified party will, if a claim thereof is to be made against the indemnifying party pursuant to the provisions of Section 6.1 or 6.2, promptly notify the indemnifying party of the commencement thereof; but the omission to so notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party otherwise than

hereunder. In case such action is brought against any indemnified party and the indemnified party notifies the indemnifying party of the commencement thereof, the indemnifying party shall have the right to participate in, and, to the extent that it may wish, assume the defense thereof; or, if there is a conflict of interest which would prevent counsel for the indemnifying party from also representing the indemnified party, the indemnified parties have the right to select only one (1) separate counsel to participate in the defense of such action on behalf of all such indemnified parties. After notice from the indemnifying parties to such indemnified party of the indemnifying parties' election so to assume the defense thereof, the indemnifying parties will not be liable to such indemnified parties pursuant to the provisions of said Section 6.1 or 6.2 for any legal or other expense subsequently incurred by such indemnified parties in connection with the defense thereof, other than reasonable costs of investigation, unless (a) the indemnified parties shall have employed counsel in accordance with the provisions of the preceding sentence; (b) the indemnifying parties shall not have employed counsel satisfactory to the indemnified parties to represent the indemnified parties within a reasonable time after the notice of the commencement of the action or (c) the indemnifying party has authorized the employment of counsel for the indemnified party at the expense of the indemnifying parties.

7. Securities Legends and Notices. Subscriber represents and warrants that it has read, considered and understood the following legends, and agrees that such legends, substantially in the form and substance set forth below, shall be placed on all of the certificates representing the Series 7 Preferred and Warrants:

Series 7 Preferred Legends

NEITHER THIS PREFERRED STOCK NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE CONVERSION OF THIS PREFERRED STOCK HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS PREFERRED STOCK AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THIS PREFERRED STOCK MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR WITHOUT THE PRIOR WRITTEN CONSENT OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. AND AN OPINION OF PERMA-FIX ENVIRONMENTAL SERVICES, INC.'S COUNSEL, OR AN OPINION FROM COUNSEL FOR THE HOLDER HEREOF, WHICH OPINION IS SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS PREFERRED STOCK ARE ALSO SUBJECT TO THE REGISTRATION RIGHTS SET FORTH IN THAT CERTAIN EXCHANGE AGREEMENT BY AND BETWEEN THE HOLDER HEREOF AND THE COMPANY, DATED SEPTEMBER 16, 1997, A COPY OF WHICH IS ON FILE AT THE COMPANY'S PRINCIPAL EXECUTIVE OFFICE.

## Warrant Legends

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT, HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR WITHOUT THE PRIOR WRITTEN CONSENT OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. AND AN OPINION OF PERMA-FIX ENVIRONMENTAL SERVICES, INC.'S COUNSEL, OR AN OPINION FROM COUNSEL FOR THE HOLDER HEREOF, WHICH OPINION IS SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES ISSUABLE UPON EXERCISE ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH IN THAT CERTAIN EXCHANGE AGREEMENT BETWEEN THE HOLDER HEREOF AND THE COMPANY, DATED SEPTEMBER 16, 1997, A COPY OF WHICH IS ON FILE AT THE COMPANY'S PRINCIPAL EXECUTIVE OFFICE.

### 8. Miscellaneous.

8.1 Assignment and Power of Attorney. For purposes of affecting the exchange of the Series 5 Preferred in accordance with the terms of this Agreement, the Subscriber does hereby assign all of its right, title and interest in and to the Series 5 Preferred to the Company and irrevocably makes, constitutes and appoints the Company as the true and lawful agents and attorneys-in-fact of the Subscriber ("Attorney-In-Fact") with full power and authority (except as provided below) to act hereunder individually, or through duly appointed successor attorneys-in-fact, in its sole discretion, all as hereinafter provided, in the name of, for and on behalf of the Subscriber, as fully as could the Subscriber if present and acting in person, with respect to all matters in connection with the transfer of the Series 5 Preferred.

8.2 Amendment; Waiver. Neither this Agreement nor the Warrants shall be changed, modified or amended in any respect except by the mutual written agreement of the parties hereto. Any provision of this Agreement or the Warrants may be waived in writing by the party which is entitled to the benefits thereof. No waiver of any provision of this Agreement or the Warrants shall be deemed to, or shall constitute a waiver of, any other provision hereof or thereof (whether or not similar), nor shall nay such waiver constitute a continuing waiver.

8.3 Binding Effect; Assignment. Neither this Agreement nor the Warrants, or any rights or obligations hereunder or thereunder, are assignable by the Subscriber.

8.4 Governing Law; Litigation Costs. This Agreement and its validity, construction and performance shall be governed

in all respects by the internal laws of the State of Delaware without giving effect to such State's conflicts of laws provisions. Each of the Company and the Subscriber expressly and irrevocably consent to the jurisdiction and venue of the federal courts located in Wilmington, Delaware. Each of the parties agrees that in the event either party brings an action to enforce any of the provisions of this Agreement or to recovery for an alleged breach of any of the provisions of this Agreement, each party shall be responsible for its own legal costs and disbursements during the pendency of any such action; provided, however, that after any such action has been reduced to a final, unappealable judgment, the prevailing party shall be entitled to recover from the other party all reasonable, documented attorneys' fees and disbursements and court costs from the other party.

8.5 Severability. Any term or provisions of this Agreement or the Warrants which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction only, be ineffective only to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or thereof affecting the validity or enforceability of such provision in any other jurisdiction.

8.6 Headings. The captions, headings and titles preceding the text of each or any Section, subsection or paragraph hereof are for convenience of reference only and shall not affect the construction, meaning or interpretation of this Agreement or the Warrants or any term or provisions hereof or thereof.

8.7 Counterparts. This Agreement may be executed in one or more original or facsimile counterparts, each of which shall be deemed an original and all of which shall be considered one and the same agreement, binding on all of the parties hereto, notwithstanding that all parties are not signatories to the same counterpart. Upon delivery of an executed counterpart by the undersigned Subscriber to the Company, which in turn is executed and delivered by the Company, this Agreement shall be binding as one original agreement between Subscriber and the Company.

8.8 Transfer Taxes. Each party hereto shall pay all such sales, transfer, use, gross receipts, registration and similar taxes arising out of, or in connection with, the transactions contemplated by this Agreement and the Warrants (collectively, the "Transfer Taxes") as are payable by such party under applicable law, and the Company shall pay the cost of any documentary stock transfer stamps, if any, to be affixed to the certificates representing the Shares and any Warrant Shares to be sold.

8.9 Entire Agreement. This Agreement, along with the Warrants and the Certificate of Designations, merges and supersedes any and all prior agreements, understandings, discussions, assurances, promises, representations or warranties among the parties with respect to the subject matter hereof, and contains the entire agreement among the parties with respect to the subject matter set forth

herein and therein.

8.10 Authority; Enforceability. The Subscriber is duly authorized to enter into this Agreement and to perform all of its obligations hereunder. Upon the execution and delivery of this Agreement by the Subscriber, this Agreement shall be enforceable against the Subscriber in accordance with its terms.

8.11 Notices. Except as otherwise specified herein to the contrary, all notices, requests, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand or by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U. S. Express Mail service, or by private overnight mail service (e.g., Federal Express). Any such notice shall be deemed to have been given (i) on the business day actually received if given by hand or by fax, (ii) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (iii) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt

requested, and all such notices shall be sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 8.11:

If to the Company: Dr. Louis F. Centofanti  
Perma-Fix Environmental  
Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653  
Fax No.: (352) 373-0040

with copies Irwin H. Steinhorn, Esquire  
simultaneously by: Conner & Winters  
like means to: One Leadership Square, Suite 1700  
211 North Robinson  
Oklahoma City, Oklahoma 73102  
Fax No.: (405) 232-2695

If to the Subscriber: The Infinity Fund, L.P.  
3 Piedmont Center, Suite 210  
Atlanta, Georgia 30305  
Attention: Mr. Barry Pearl  
Fax No.: (404) 231-1375

8.12 No Third Party Beneficiaries. This Agreement and the rights, benefits, privileges, interests, duties and obligations contained or referred to herein shall be solely for the benefit of the parties hereto and no third party shall have any rights or benefits hereunder as a third party beneficiary or otherwise hereunder.

8.13 Public Announcements. Neither Subscriber nor any officer, director, stockholder, employee, affiliate or affiliated person or entity of Subscriber, shall make or issue any press releases or otherwise make any public statements or make any disclosures to any third person or entity with respect to the transactions contemplated herein and will not make or issue any press releases or

otherwise make any public statements of any nature whatsoever with respect to the Company without the express prior approval of the Company.

IN WITNESS WHEREOF, the Company and the undersigned Subscriber have each duly executed this Agreement on the \_\_\_ day of October, 1997 but is considered to be effective as of the 16th day of September, 1997.

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By \_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

THE INFINITY FUND, L.P.

By \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EXCHANGE AGREEMENT

exchanging

350 SHARES OF SERIES 5 CLASS E CONVERTIBLE PREFERRED STOCK,

PAR VALUE \$.001 PER SHARE

of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(a Delaware corporation)

for

350 SHARES OF SERIES 7 CLASS G CONVERTIBLE PREFERRED STOCK,

PAR VALUE \$.001 PER SHARE

and

35,000 WARRANTS, EACH WARRANT TO PURCHASE

ONE SHARE OF COMMON STOCK

of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(a Delaware corporation)

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Exhibit "A" - Certificate of Designations  
Exhibit "B" - Common Stock Purchase Warrant

THIS EXCHANGE AGREEMENT (the "Agreement") is effective as of the 16th day of September, 1997, by and between PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation, having offices at 1940 Northwest 67th Place, Gainesville, Florida 32653 (the "Company"), and THE INFINITY FUND, L.P., a Georgia limited partnership, and having its principal offices at 3 Piedmont Center, Suite 210, Atlanta, Georgia 30305 (the "Subscriber").

W I T N E S S E T H:

WHEREAS, the Subscriber and the Company have previously entered into a certain Subscription and Purchase Agreement dated as of the 7th day of July, 1997 ("Previous Agreement") under which 350 shares of "Series 5 Class E Convertible Preferred Stock" (the "Series 5 Preferred") were issued to the Subscriber in the form of one Series 5 Preferred certificate;

WHEREAS, the Company and the Subscriber both desire to enter into this Agreement, under which the Series 5 Preferred will be delivered and tendered to the Company in exchange for (the "Exchange") of (i) an aggregate of 350 shares of a new series of convertible preferred stock, par value \$.001 per share, to be designated by the Company's Board of Directors as "Series 7 Class G Convertible Preferred Stock" (the "Series 7 Preferred"), with such Series 7 Preferred containing such terms, conditions, restrictions and provisions as set forth in the Series 7 Preferred Certificate of Designations ("Certificate of Designations") attached hereto as Exhibit "A," and (ii) an aggregate of 35,000 common stock purchase warrants (a "Warrant" and collectively, the "Warrants"), with each common stock purchase warrant providing for the purchase of one share of the Company's Common Stock, at the exercise prices set forth herein (the Series 7 Preferred and the Warrants are collectively referred to herein from time to time as the "Securities");

WHEREAS, the Company and the Subscriber each desire that the Exchange and the execution of the Agreement act to fully and completely terminate the Subscriber's rights under the Previous Agreement and the Series 5 Preferred and will act to fully and completely release all obligations of the Company to the Subscriber under the Previous Agreement and the Series 5 Preferred;

WHEREAS, the Common Stock is listed for trading on the Boston Stock Exchange and the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), and the Company is subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and has been subject to such filing requirements for the past ninety (90) days;

WHEREAS, the Subscriber is an "accredited investor" as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act of 1933, as amended (the "Securities Act");

WHEREAS, the principal place of business of the Subscriber is located in Atlanta, Georgia;

WHEREAS, in order to induce the Subscriber to enter into this Agreement and to subscribe for and purchase the Securities on the terms and subject to the conditions hereof, the Company is granting certain registration rights under the Agreement with respect to the Common Stock issuable upon the conversion of the Series 7 Preferred and the Common Stock issuable upon the exercise of the Warrants;

WHEREAS, in reliance upon the representations made by the Subscriber in this Agreement, the transactions contemplated by this Agreement are such that the exchange of securities by the Company hereunder will be exempt from registration under applicable federal (U.S.) and state securities laws since this is an exchange offer pursuant to Section 3(a)(9) of the Securities Act, and it is a private placement and intended to be a nonpublic offering pursuant to Sections 4(2) and/or 3(b) of the Securities Act and/or Regulation D promulgated under the Securities Act; and,

WHEREAS, the Securities to be sold in accordance with this Agreement will not be quoted or listed for trading on any securities exchange, organized market or quotation system at the time of acquisition hereunder.

NOW, THEREFORE, for and in consideration of the premises, and the mutual representations, warranties, covenants and agreements set forth herein, and for other good and valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Subscription for Purchase of Securities.

1.1 Issuance of Common Stock and Warrants. In full and complete satisfaction of the Previous Agreement and the Series 5 Preferred and in full and complete termination of the Subscriber's rights under the Previous Agreement and the Series 5 Preferred and in full and complete release of all obligations of the Company to the Subscriber under the Previous Agreement and the Series 5 Preferred, the Subscriber hereby delivers the Series 5 Preferred to the Company in exchange for 350 shares of Series 7 Preferred and the Warrants to purchase up to 35,000 shares of Common Stock upon the terms and conditions set forth in this Agreement and the Warrants, with such Warrants containing the terms and conditions as stated herein.

1.1.1 Delivery. Upon receipt by the Company of the Series 5 Preferred to be cancelled, the Company shall cause to be delivered: (a) to the Subscriber, c/o Bear Stearns & Co., 55 Water Street, Third Floor, Concourse Level, South Building, New York, New York 10040-0082, a certificate or certificates representing the 350 shares of Series 7 Preferred received by the Subscriber, in such denominations as Subscriber requests in writing; and (b) to the Subscriber, (i) written evidence from the Secretary of State of the State of Delaware that the Certificate of Designations has been filed in the Office of the Secretary of State

of the State of Delaware on or before the Closing Date; (ii) a Warrant, dated the Closing Date, entitling the Subscriber to purchase after December 31, 1997, an aggregate of up to 35,000 Warrant Shares at an exercise price equal to \$1.8125 per share ("Warrant"). If at any time the Warrant Shares are covered by an effective registration statement filed with the SEC and the average closing bid price of the Common Stock for ten (10) consecutive trading days shall be in excess of \$7.00 with respect to the Warrant, then the Company shall have the option to redeem the Warrants for an amount equal to one cent (\$0.01) per Warrant Share covered by the Warrants. Each Warrant will have an expiration date of July 7, 2000.

1.1.2 Cancellation of Series 5 Preferred. The Previous Agreement and Series 5 Preferred are hereby terminated and rendered null and void in all respects. The Subscriber shall deliver the Series 5 Preferred to the Company for cancellation.

1.1.3 Restrictive Legends. Subscriber agrees that, subject to the provisions of Section 5 below, all certificates representing the Securities shall bear the restrictive legend substantially in the form set forth in Section 7 below which shall include, but not be limited to, a legend to the effect that (a) the Securities represented by such certificate have not been registered under the Securities Act, and (b) unless there is an effective registration statement relating to the Securities, the Securities may not be offered, sold, transferred, mortgaged, pledged or hypothecated without an exemption from registration and an opinion of counsel to the Company with respect thereto, or an opinion from counsel for the Subscriber, which opinion is satisfactory to the Company, to the effect that registration under the Securities Act is not required in connection with such sale or transfer and the reasons therefor. The legend on all such certificates shall make reference to the registration rights set forth in Section 5 hereof.

1.2 Discharge. The Previous Agreement, and Series 5 Preferred are hereby fully terminated in all respects. The Subscriber hereby releases, acquits and forever discharges the Company, and all of its respective subsidiaries, affiliates, agents, employees, officers, and directors, as well as their respective heirs, suc-

cessors, legal and personal representatives, and assigns of any and all of them, from and against any and all claims, liabilities, losses, damages, cause or causes of action of any kind or character whatsoever, whether liquidated, unliquidated or disputed, asserted or assertable, known or unknown, in contract or in tort, at law or in equity, which the Subscriber might now or hereafter have arising out of or in connection with or

relating to the Previous Agreement and the Series 5 Preferred.

1.3 Exchange. On the basis of the representations, warranties, covenants and agreements, and subject to the terms and conditions set forth herein, on the Closing Date, the Company agrees to exchange and deliver to the Subscriber, and the Subscriber agrees to accept in such exchange the delivery from the Company, of the Securities in exchange for the transfer of the Series 5 Preferred ("Purchase Price") from the Subscriber to the Company.

1.4 Reporting Company. Although the Securities, the shares of Common Stock issuable upon conversion of the Series 7 Preferred (the "Conversion Shares") and the shares of Common Stock issuable upon exercise of the Warrants (the "Warrant Shares") shall not be registered as of the Closing under federal or state securities laws or any rules or regulations promulgated thereunder, the Company is reporting company under the Exchange Act and has filed with the Securities and Exchange Commission (the "SEC") all reports required to be filed by the Company under Section 13 or 15(d) of the Exchange Act. The Subscriber has had the opportunity to review, and has reviewed, all such reports and information which the Subscriber deemed material to an investment decision regarding the purchase of the Securities.

1.5 Terms of the Series 7 Preferred. The Series 7 Preferred shall contain and be subject to the terms, conditions, preferences and restrictions set forth in the Certificate of Designations attached hereto as Exhibit "A," ("Certificate of Designations"), including, but not limited to Section 4.2 thereof, the right to convert the Series 7 Preferred into Common Stock of the Company based on a Conversion Price per outstanding share of Series 7 Preferred of \$1.8125 except that, in the event the average closing bid price per share of the Common Stock for 20 of any 30 consecutive trading days (a "30 Day Period") after March 1, 1998 shall be less than \$2.50 as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange and if the holders of the Series 7 Preferred have engaged in no sales of Common Stock of the Company during, and for 30 trading days prior to, the applicable 30 Day Period, the Conversion Price shall thereafter be the product of the lesser of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five trading days immediately preceding the date of the conversion notice, provided by the Subscriber to the Company multiplied by eighty percent (80%) or (ii) \$1.8125. Notwithstanding the foregoing, the Conversion Price shall not be less than a minimum of \$.75 per share ("Minimum Conversion Price"), which Minimum Conversion Price shall be eliminated from and after September 6, 1998. If any of the outstanding shares of Series 7 Preferred are converted, in whole or in part, into Common Stock pursuant to the terms set forth in the Series 7 Preferred Certificate of Designations, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a)

the aggregate Liquidation Value (being \$1,000 times the number of shares of Series 7 Preferred surrendered for conversion) of the Series 7 Preferred so surrendered for conversion by (b) the Conversion Price as of such conversion. At the time of conversion of shares of the Series 7 Preferred, the Company shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to the date of conversion, or, at the Company's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of whole shares of Common Stock which is equal to the quotient of the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 7 Preferred so converted divided by the Stock Dividend Price, as defined in the Series 7 Preferred Certificate of Designations, in effect at the date of conversion.

1.6 Terms of the Warrants. The Warrants will be substantially in the form attached hereto as Exhibit "B," subject to the terms, and with the date and exercise price of such Warrants to be as set forth herein.

## 2. Closing.

2.1 Closing. The consummation of this Agreement (the "Closing") will occur on September 16, 1997 (the "Closing Date"), at the offices of the Company or at such other mutually convenient time or at such other mutually convenient place as agreed upon by the parties.

## 3. Representations, Warranties and Covenants of Subscriber. The Subscriber hereby represents, warrants and covenants to the Company as follows:

3.1 Investment Intent. The Subscriber represents and warrants that the Securities are being, and any underlying Conversion Shares and Warrant Shares will be, purchased or acquired solely for the Subscriber's own account, for investment purposes only and not with a view toward the distribution or resale to others. The Subscriber acknowledges, understands and appreciates that the Securities have not been registered under the Securities Act by reason of a claimed exemption under the provisions of the Securities Act which depends, in large part, upon the Subscriber's representations as to investment intention, investor status, and related and other matters set forth herein. Subscriber understands that, in the view of the United States Securities and Exchange Commission (the "SEC"), among other things, a purchase now with an intent to distribute or resell would represent a purchase and acquisition with an intent inconsistent with its representation to the Company, and the SEC might regard such a transfer as a deferred sale for which the registration exemption is not available.

3.2 Certain Risk. The Subscriber recognizes that the purchase of the Securities involves a high degree of risk in that (a) the Company has sustained losses through June 30, 1997, from its operations, and may require substantial funds in addition to the proceeds of this private placement; (b) that the Company has a substantial accumulated deficit; (c) an investment in the Company is highly speculative and only investors who can afford the

loss of their entire investment should consider investing in the Company and the Securities; (d) an investor may not be able to liquidate his investment; (e) transferability of the Securities is extremely limited; (f) in the event of a disposition an investor could sustain the loss of his entire investment; (g) the Securities represent non-voting equity securities, and the right to convert into and purchase shares of voting equity securities in a corporate entity that has an accumulated deficit; (h) no return on investment, whether through distributions, appreciation, transferability or otherwise, and no performance by, through or of the Company, has been promised, assured, represented or warranted by the Company, or by any director, officer, employee, agent or representative thereof; and, (i) while the Common Stock is presently quoted and traded on the Boston Stock Exchange and the Nasdaq SmallCap Market and while the Subscriber is a beneficiary of certain registration rights provided herein, the Securities subscribed for and that are purchased under this Agreement, the Conversion Shares, and the Warrant Shares (i) are not registered under applicable federal (U. S.) or state securities laws, and thus may not be sold, conveyed, assigned or transferred unless registered under such laws or unless an exemption from registration is available under such laws, as more fully described herein, and (ii) the Securities subscribed for and that are to be purchased under this Agreement are not quoted, traded or listed for trading or quotation on the NASDAQ, or any other organized market or quotation system, and there is therefore no present public or other market for the Securities, nor can there be any assurance that the Common Stock of the Company will continue to be quoted, traded or listed for trading or quotation on the Boston Stock Exchange or the Nasdaq SmallCap Market or on any other organized market or quotation system.

3.3 Prior Investment Experience. The Subscriber acknowledges that it has prior investment experience, including investment in non-listed and non-registered securities, or has employed the services of an investment advisor, attorney or accountant to read all of the documents furnished or made available by the Company to it and to evaluate the merits and risks of such an investment on its behalf, and that it recognizes the highly speculative nature of this investment.

3.4 No Review by the SEC. The Subscriber hereby acknowledges that this offering of the Securities has not been reviewed by the SEC because this private placement is intended to be an exchange offer under Section 3(a)(9) of the Securities Act and a nonpublic offering pursuant to Sections 4(2) and/or 3(b) of the Securities Act and/or Regulation D promulgated under the Securities Act.

3.5 Not Registered. The Subscriber understands that the Securities, the Conversion Shares and the Warrant Shares have not been registered under the Securities Act by reason of a claimed exemption under the provisions of the Securities Act which depends, in part, upon the Subscriber's investment intention. In this connection, the Subscriber understands that it is the position of the SEC that the statutory basis for such exemption would not

be present if its representation merely meant that its present intention was to hold such securities for a short period, such as the capital gains period of tax statutes, for a deferred sale, for a market rise (assuming that a market develops), or for any other fixed period.

3.6 No Public Market. The Subscriber understands that there is no public market for the Series 7 Preferred or the Warrants. The Subscriber understands that although there is presently a public market for the Common Stock, including the Common Stock issuable upon conversion of the Series 7 Preferred or exercise of the Warrants, Rule 144 (the "Rule") promulgated under the Securities Act requires, among other conditions, a one-year holding period following full payment of the consideration therefor prior to the resale (in limited amounts) of securities acquired in a nonpublic offering without having to satisfy the registration requirements under the Securities Act. The Subscriber understands that the Company makes no representation or warranty regarding its fulfillment in the future of any reporting requirements under the Exchange Act, or its dissemination to the public of any current financial or other information concerning the Company, as is required by the Rule as one of the conditions of its availability. The Subscriber understands and hereby acknowledges that the Company is under no obligation to register the Securities or the Conversion Shares or the Warrant Shares under the Securities Act, except as set forth in Section 5 hereof. The Subscriber agrees to hold the Company and its directors, officers and controlling persons and their respective heirs, representatives, successors and assigns harmless and to indemnify them against all liabilities, costs and expenses incurred by them as a result of any misrepresentation made by the Subscriber contained herein or any sale or distribution by the Subscriber in violation of the Securities Act or any applicable state securities or "blue sky" laws (collectively, "Securities Laws").

3.7 Sophisticated Investor. That (a) the Subscriber is an "accredited investor," as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act, and has total assets in excess of \$5,000,000; (b) the Subscriber is able to bear the economic risks inherent in an investment in the Securities and that an important consideration bearing on its ability to bear the economic risk of the purchase of Securities is whether the Subscriber can afford a complete loss of the Subscriber's investment in the Securities and the Subscriber represents and warrants that the Subscriber can afford such a complete loss; and (c) the Subscriber has such knowledge and experience in business, financial, investment and banking matters (including, but not limited to, investments in restricted, non-listed and non-registered securities) that the Subscriber is capable of evaluating the merits, risks and advisability of an investment in the Securities.

3.8 Tax Consequences. The Subscriber acknowledges that the Company has made no representation regarding the potential or actual tax consequences for the Subscriber which will result from entering into the Agreement and from consummation of the Exchange. The Subscriber

acknowledges that it bears complete responsibility for obtaining adequate tax advice regarding the Agreement and the Exchange.

3.9 SEC Filing. The Subscriber acknowledges that it has been previously furnished with true and complete copies of the following documents which have been filed with the SEC pursuant to Sections 13(a), 14(a), 14(c) or 15(d) of the Exchange Act since January 1, 1997, and that such have been furnished to the Subscriber a reasonable time prior to the date hereof: (a) the Company's Form 10-K for the year ended December 31, 1996; (b) the Company's Form 10-Q for the quarter ended March 31, 1997; (c) the Company's Form 10-Q for the quarter ended June 30, 1997, and (d) the Company's Form 8-K, date of event reported: June 11, 1997, as amended by the Company's Form 8-K/A, dated June 25, 1997.

3.10 Documents, Information and Access. The Subscriber's decision to purchase the Securities is not based on any promotional, marketing or sales materials, and the Subscriber and its representatives have been afforded, prior to purchase thereof, the opportunity to ask questions of, and to receive answers from, the Company and its management, and has had access to all documents and information which Subscriber deems material to an investment decision with respect to the purchase of Securities hereunder.

3.11 No Registration, Review or Approval. The Subscriber acknowledges and understands that the private offering and sale of Securities pursuant to this Agreement has not been reviewed or approved by the SEC or by any state securities commission, authority or agency, and is not registered under the Securities Laws. The Subscriber acknowledges, understands and agrees that the Shares are being exchanged hereunder pursuant to (i) an exchange offer exemption under Section 3(a)(9) of the Securities Act and (ii) (x) a private placement exemption to the registration provisions of the Securities Act pursuant to Section 3(b) and/or Section 4(2) of such Securities Act and/or Regulation D promulgated under the Securities Act) and (y) a similar exemption to the registration provisions of applicable state securities laws.

3.12 Transfer Restrictions. That Subscriber will not transfer any Securities purchased under this Agreement or any Conversion Shares or Warrant Shares purchased under this Agreement unless such Series 7 Preferred, Conversion Shares, or Warrant Shares, whichever is applicable, are registered under the Securities Laws, or unless an exemption is available under such Securities Laws, and the Company may, if it chooses, where an exemption from registration is claimed by such Subscriber, condition any transfer of Securities, Conversion Shares or Warrant Shares out of the Subscriber's name on an opinion of the Company's counsel, to the effect that the proposed transfer is being effected in accordance with, and does not violate, an applicable exemption from registration under the Securities Laws, or an opinion of counsel to the Subscriber, which opinion is satisfactory to the Company, to the effect that registration under the Securities Act is not required in connection with such



sale or transfer and the reasons therefor.

3.13 No Short Sale. The Subscriber expressly agrees that until such time that it has sold all of the Securities and/or all of the Conversion Shares and Warrant Shares that it shall not, directly or indirectly, through an affiliate (as that term is defined under Rule 405 promulgated under the Securities Act) or by, with or through an unrelated third party or entity, whether or not pursuant to a written or oral understanding, agreement, arrangement, scheme, or artifice of nature whatsoever, engage in the short selling of the Company's Common Stock or any other equity securities of the Company, whether now existing or hereafter issued, or engage in any other activity of any nature whatsoever that has the same effect as a short sale, or is a de facto or de jure short sale, of the Company's Common Stock or any other equity security of the Company, whether now existing or hereafter issued, including, but not limited to, the sale of any rights pursuant to any understanding, agreement, arrangement, scheme or artifice of any nature whatsoever, whether oral or in writing, relative to the Company's Common Stock or any other equity securities of the Company whether now existing or hereafter created. The Subscriber agrees that it will not engage, and will cause its affiliates not to engage, in any activity designed to reduce the price of the Company's Common Stock, as quoted on the Boston Stock Exchange or the NASDAQ, in connection with the Subscriber's conversion of any of the Series 7 Preferred. The Subscriber agrees to refrain, and cause its affiliates to refrain, from engaging in, or inducing others to engage in, any activity relating to the Company or Common Stock of the Company that is proscribed under Regulation M promulgated under the Exchange Act.

3.14 Reliance. The Subscriber understands and acknowledges that the Company is relying upon all of the representations, warranties, covenants, understandings, acknowledgements and agreements contained in this Agreement in determining whether to accept this subscription and to sell and issue the Securities to the Subscriber.

3.15 Accuracy or Representations and Warranties. All of the representations, warranties, understandings and acknowledgments that Subscriber has made herein are true and correct in all material respects as of the date of execution hereof. The Subscriber will perform and comply fully in all material respects with all covenants and agreements set forth herein, and the Subscriber covenants and agrees that until the acceptance of this Agreement by the Company, the Subscriber shall inform the Company immediately in writing of any changes in any of the representations or warranties provided or contained herein.

3.16 Indemnity. The Subscriber hereby agrees to indemnify and hold harmless the Company, and the Company's successors and assigns, from, against and in all respects of any demands, claims, actions or causes of action, assessments, liabilities, losses, costs, damages, penalties, charges, fines or expenses (including, without limitation, interest, penalties, and attorney and

accountants' fees, disbursements and expenses), arising out of or relating to any breach by Subscriber of any representations, warranty, covenant or agreement made by Subscriber in this Agreement. Such right to indemnification shall be in addition to any and all other rights of the Company under this Agreement or otherwise, at law or in equity.

3.17 Survival. The Subscriber expressly acknowledges and agrees that all of its representations, warranties, agreements and covenants set forth in this Agreement shall be of the essence hereof and shall survive the execution, delivery and Closing of this Agreement, the sale and purchase of the Securities, the conversion of the Series 7 Preferred, exercise of the Warrants, and the sale of the Conversion Shares and the Warrant Shares.

4. Representations, Warranties and Covenants of the Company. In order to induce Subscriber to enter into this Agreement and to exchange the Series 5 Preferred for the Securities, the Company hereby represents, warrants and covenants to Subscriber as follows:

4.1 Organization, Authority, Qualification. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware. The Company has full corporate power and authority to own and operate its properties and assets and to conduct and carry on its business as it is now being conducted and operated.

4.2 Authorization. The Company has full power and authority to execute and deliver this Agreement and to perform its obligations under and consummate the transactions contemplated by this Agreement. Upon the execution of this Agreement by the Company and delivery of the Securities, this Agreement shall have been duly and validly executed and delivered by the Company and shall constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms.

4.3 Ownership of, and Title to, Securities. The Securities to be purchased by the Subscriber are, and all Conversion Shares and Warrant Shares, when issued, will be, duly authorized, validly issued, fully paid and nonassessable shares of the capital stock of the Company, free of personal liability. Upon consummation of the purchase of the Securities (and upon the exercise of the Warrants and conversion of the Series 7 Preferred, in whole or in part) pursuant to this Agreement, the Subscriber will own and acquire title to the Securities (and the Warrant Shares and the Conversion Shares, as the case may be) free and clear of any and all proxies, voting trusts, pledges, options, restrictions, or other legal or equitable encumbrance of any nature whatsoever (other than the restrictions on transfer due to Securities Laws or as otherwise provided for in this Agreement or the Certificate of Designation).

4.4 Exemption from Registration. The offer and exchange of Securities to the Subscriber in accordance with the terms and provisions of this Agreement is being effected in accordance with the Securities Act, pursuant to an

exchange offer exemption to the registration provision of the Securities Act pursuant to Section 3(a)(9) thereunder and to a private placement exemption to the registration provisions of the Act pursuant to Section 3(b) and/or 4(2) of such Act and/or Regulation D promulgated under the Securities Act, based on the representations, warranties and covenants made by the Subscriber contained in this Agreement.

5. Registration Rights. In order to induce the Subscriber to enter into this Agreement and purchase the Securities, the Company hereby covenants and agrees to grant to the Subscriber the rights set forth in this Section 5 with respect to the registration of the Warrant Shares and the Conversion Shares.

5.1 Registration. Subject to the terms of Section 5 hereof, the Company agrees that by October 27, 1997, it shall prepare and file with the SEC, a registration statement on Form S-3 or equivalent form (the "Registration Statement") and such other documents, including a prospectus, as may be necessary in the opinion of counsel for the Company in order to comply with the provisions of the Securities Act, so as to permit a public offering and sale by the Subscriber of up to 200,000 shares of Common Stock issuable upon conversion of the Series 7 Preferred, plus up to 36,000 shares of Common Stock, if any, issuable as payment of dividends on the Series 7 Preferred Stock pursuant to the terms of the Series 7 Preferred, and 35,000 shares of Common Stock issuable upon exercise of the Warrants. The Company shall use its reasonable efforts to cause such Registration Statement to become effective at the earliest possible date after filing. In connection with the offering of such Common Stock registered pursuant to this Section 5, the Company shall take such reasonable actions as it deems necessary to qualify the Common Stock issuable upon conversion of the Series 7 Preferred, the Common Stock issuable as payment of dividends on the Series 7 Preferred, and the Common Stock issuable upon exercise of the Warrant, covered by such Registration Statement under such "blue sky" or other state securities laws for offer and sale as shall be reasonably necessary to permit the public offering and sale of such shares of Common Stock covered by such Registration Statement; provided, however, that the Company shall not be required (a) to qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this subparagraph, (b) to subject itself to taxation in any such jurisdiction, or (c) to consent to general service of process in any such jurisdiction. It is expressly agreed that in no event are any registration rights being granted to the Series 7 Preferred itself, but only with respect to up to 200,000 shares of the underlying Conversion Shares issuable upon exercise of the Series 7 Preferred, up to 36,000 shares of Common Stock that the Company may issue in payment of dividends on the Series 7 Preferred, and up to 35,000 shares of the Warrant Shares issuable upon the exercise of the Warrants.

5.2 Current Registration Statement. Once effective, the Company shall use its reasonable efforts to cause such Registration Statement filed hereunder to remain current and effective for a period of two (2) years or until the Conversion Shares covered by such Registration Statement

are sold by the Subscriber, whichever is sooner. The Subscriber shall promptly provide all such information and materials and take all such action as may be required in order to permit the Company to comply with all applicable requirements of the SEC and to obtain any desired acceleration of the effective date of such registration statement.

5.3 Other Provisions. In connection with the offering of any Conversion Shares and/or Warrant Shares registered pursuant to this Section 5, the Company shall furnish to the Subscriber such number of copies of any final prospectus as it may reasonably request in order to effect the offering and sale of the Conversion Shares and/or Warrant Shares to be offered and sold under such Registration Statement. In connection with any offering of Conversion Shares and/or Warrant Shares registered pursuant to this Section 5, the Company shall (a) furnish to the underwriters (if any), at the Company's expense, unlegended certificates representing ownership of the Conversion Shares and/or Warrant Shares sold under such Registration Statement in such denominations as requested and (b) instruct any transfer agent and registrar of the Conversion Shares and/or Warrant Shares sold under such Registration Statement to release immediately any stop transfer order, and to remove any restrictive legend, with respect to such Conversion Shares and/or Warrant Shares included in any registration becoming effective pursuant to this Agreement upon the sale of such shares by the Subscriber.

5.4 Costs. Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the Registration Statement relating to the Conversion Shares and the Warrant Shares under this Section 5, including filing fees, fees, costs and disbursements of any counsel, accountants and other consultants representing the Company in connection therewith. Notwithstanding anything set forth herein to the contrary, Subscriber shall be responsible for and pay any and all underwriting discounts and commissions in connection with the sale of the Conversion Shares and/or Warrant Shares pursuant hereto or the Registration Statement and all fees of its legal counsel and other advisors retained in connection with reviewing such Registration Statement.

5.5 Successors. The Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business, properties, stock or assets of the Company, to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place.

## 6. Indemnification.

6.1 By the Company. Subject to the terms of this Section 6, the Company will indemnify and hold harmless the Subscriber, its directors and officers, and any underwriter (as defined in the Securities Act) for the

Subscriber and each person, if any, who controls the Subscriber or such underwriter within the meaning of the Act, from and against, and will reimburse the Subscriber and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement filed with the SEC pursuant to Section 5, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Subscriber, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

6.2 By the Subscriber. Subject to the terms of this Section 6, the Subscriber will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expense to which the Company or any controlling person and/or any underwriter may become subject under the Securities Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such Registration Statement filed with the SEC pursuant to Section 5, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on behalf of, the Subscriber specifically for use in the preparation thereof.

6.3 Procedure. Promptly after receipt by an indemnified party pursuant to the provisions of Section 6.1 or 6.2 of notice of the commencement of any action involving the subject matter of the foregoing indemnity provisions, such indemnified party will, if a claim thereof is to be made against the indemnifying party pursuant to the provisions of Section 6.1 or 6.2, promptly notify the indemnifying party of the commencement thereof; but the omission to so notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party otherwise than

hereunder. In case such action is brought against any indemnified party and the indemnified party notifies the indemnifying party of the commencement thereof, the indemnifying party shall have the right to participate in, and, to the extent that it may wish, assume the defense thereof; or, if there is a conflict of interest which would prevent counsel for the indemnifying party from also representing the indemnified party, the indemnified parties have the right to select only one (1) separate counsel to participate in the defense of such action on behalf of all such indemnified parties. After notice from the indemnifying parties to such indemnified party of the indemnifying parties' election so to assume the defense thereof, the indemnifying parties will not be liable to such indemnified parties pursuant to the provisions of said Section 6.1 or 6.2 for any legal or other expense subsequently incurred by such indemnified parties in connection with the defense thereof, other than reasonable costs of investigation, unless (a) the indemnified parties shall have employed counsel in accordance with the provisions of the preceding sentence; (b) the indemnifying parties shall not have employed counsel satisfactory to the indemnified parties to represent the indemnified parties within a reasonable time after the notice of the commencement of the action or (c) the indemnifying party has authorized the employment of counsel for the indemnified party at the expense of the indemnifying parties.

7. Securities Legends and Notices. Subscriber represents and warrants that it has read, considered and understood the following legends, and agrees that such legends, substantially in the form and substance set forth below, shall be placed on all of the certificates representing the Series 7 Preferred and Warrants:

Series 7 Preferred Legends

NEITHER THIS PREFERRED STOCK NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE CONVERSION OF THIS PREFERRED STOCK HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS PREFERRED STOCK AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THIS PREFERRED STOCK MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR WITHOUT THE PRIOR WRITTEN CONSENT OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. AND AN OPINION OF PERMA-FIX ENVIRONMENTAL SERVICES, INC.'S COUNSEL, OR AN OPINION FROM COUNSEL FOR THE HOLDER HEREOF, WHICH OPINION IS SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS PREFERRED STOCK ARE ALSO SUBJECT TO THE REGISTRATION RIGHTS SET FORTH IN THAT CERTAIN EXCHANGE AGREEMENT BY AND BETWEEN THE HOLDER HEREOF AND THE COMPANY, DATED SEPTEMBER 16, 1997, A COPY OF WHICH IS ON FILE AT THE COMPANY'S PRINCIPAL EXECUTIVE OFFICE.

## Warrant Legends

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT, HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR WITHOUT THE PRIOR WRITTEN CONSENT OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. AND AN OPINION OF PERMA-FIX ENVIRONMENTAL SERVICES, INC.'S COUNSEL, OR AN OPINION FROM COUNSEL FOR THE HOLDER HEREOF, WHICH OPINION IS SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES ISSUABLE UPON EXERCISE ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH IN THAT CERTAIN EXCHANGE AGREEMENT BETWEEN THE HOLDER HEREOF AND THE COMPANY, DATED SEPTEMBER 16, 1997, A COPY OF WHICH IS ON FILE AT THE COMPANY'S PRINCIPAL EXECUTIVE OFFICE.

### 8. Miscellaneous.

8.1 Assignment and Power of Attorney. For purposes of affecting the exchange of the Series 5 Preferred in accordance with the terms of this Agreement, the Subscriber does hereby assign all of its right, title and interest in and to the Series 5 Preferred to the Company and irrevocably makes, constitutes and appoints the Company as the true and lawful agents and attorneys-in-fact of the Subscriber ("Attorney-In-Fact") with full power and authority (except as provided below) to act hereunder individually, or through duly appointed successor attorneys-in-fact, in its sole discretion, all as hereinafter provided, in the name of, for and on behalf of the Subscriber, as fully as could the Subscriber if present and acting in person, with respect to all matters in connection with the transfer of the Series 5 Preferred.

8.2 Amendment; Waiver. Neither this Agreement nor the Warrants shall be changed, modified or amended in any respect except by the mutual written agreement of the parties hereto. Any provision of this Agreement or the Warrants may be waived in writing by the party which is entitled to the benefits thereof. No waiver of any provision of this Agreement or the Warrants shall be deemed to, or shall constitute a waiver of, any other provision hereof or thereof (whether or not similar), nor shall nay such waiver constitute a continuing waiver.

8.3 Binding Effect; Assignment. Neither this Agreement nor the Warrants, or any rights or obligations hereunder or thereunder, are assignable by the Subscriber.

8.4 Governing Law; Litigation Costs. This Agreement and its validity, construction and performance shall be governed

in all respects by the internal laws of the State of Delaware without giving effect to such State's conflicts of laws provisions. Each of the Company and the Subscriber expressly and irrevocably consent to the jurisdiction and venue of the federal courts located in Wilmington, Delaware. Each of the parties agrees that in the event either party brings an action to enforce any of the provisions of this Agreement or to recovery for an alleged breach of any of the provisions of this Agreement, each party shall be responsible for its own legal costs and disbursements during the pendency of any such action; provided, however, that after any such action has been reduced to a final, unappealable judgment, the prevailing party shall be entitled to recover from the other party all reasonable, documented attorneys' fees and disbursements and court costs from the other party.

8.5 Severability. Any term or provisions of this Agreement or the Warrants which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction only, be ineffective only to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or thereof affecting the validity or enforceability of such provision in any other jurisdiction.

8.6 Headings. The captions, headings and titles preceding the text of each or any Section, subsection or paragraph hereof are for convenience of reference only and shall not affect the construction, meaning or interpretation of this Agreement or the Warrants or any term or provisions hereof or thereof.

8.7 Counterparts. This Agreement may be executed in one or more original or facsimile counterparts, each of which shall be deemed an original and all of which shall be considered one and the same agreement, binding on all of the parties hereto, notwithstanding that all parties are not signatories to the same counterpart. Upon delivery of an executed counterpart by the undersigned Subscriber to the Company, which in turn is executed and delivered by the Company, this Agreement shall be binding as one original agreement between Subscriber and the Company.

8.8 Transfer Taxes. Each party hereto shall pay all such sales, transfer, use, gross receipts, registration and similar taxes arising out of, or in connection with, the transactions contemplated by this Agreement and the Warrants (collectively, the "Transfer Taxes") as are payable by such party under applicable law, and the Company shall pay the cost of any documentary stock transfer stamps, if any, to be affixed to the certificates representing the Shares and any Warrant Shares to be sold.

8.9 Entire Agreement. This Agreement, along with the Warrants and the Certificate of Designations, merges and supersedes any and all prior agreements, understandings, discussions, assurances, promises, representations or warranties among the parties with respect to the subject matter hereof, and contains the entire agreement among the parties with respect to the subject matter set forth



herein and therein.

8.10 Authority; Enforceability. The Subscriber is duly authorized to enter into this Agreement and to perform all of its obligations hereunder. Upon the execution and delivery of this Agreement by the Subscriber, this Agreement shall be enforceable against the Subscriber in accordance with its terms.

8.11 Notices. Except as otherwise specified herein to the contrary, all notices, requests, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand or by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U. S. Express Mail service, or by private overnight mail service (e.g., Federal Express). Any such notice shall be deemed to have been given (i) on the business day actually received if given by hand or by fax, (ii) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (iii) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt

requested, and all such notices shall be sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 8.11:

If to the Company: Dr. Louis F. Centofanti  
Perma-Fix Environmental  
Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653  
Fax No.: (352) 373-0040

with copies Irwin H. Steinhorn, Esquire  
simultaneously by: Conner & Winters  
like means to: One Leadership Square, Suite 1700  
211 North Robinson  
Oklahoma City, Oklahoma 73102  
Fax No.: (405) 232-2695

If to the Subscriber: The Infinity Fund, L.P.  
3 Piedmont Center, Suite 210  
Atlanta, Georgia 30305  
Attention: Mr. Barry Pearl  
Fax No.: (404) 231-1375

8.12 No Third Party Beneficiaries. This Agreement and the rights, benefits, privileges, interests, duties and obligations contained or referred to herein shall be solely for the benefit of the parties hereto and no third party shall have any rights or benefits hereunder as a third party beneficiary or otherwise hereunder.

8.13 Public Announcements. Neither Subscriber nor any officer, director, stockholder, employee, affiliate or affiliated person or entity of Subscriber, shall make or issue any press releases or otherwise make any public statements or make any disclosures to any third person or entity with respect to the transactions contemplated herein and will not make or issue any press releases or

otherwise make any public statements of any nature whatsoever with respect to the Company without the express prior approval of the Company.

IN WITNESS WHEREOF, the Company and the undersigned Subscriber have each duly executed this Agreement on the \_\_\_ day of October, 1997 but is considered to be effective as of the 16th day of September, 1997.

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By \_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

THE INFINITY FUND, L.P.

By \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EXCHANGE AGREEMENT

exchanging

350 SHARES OF SERIES 5 CLASS E CONVERTIBLE PREFERRED STOCK,

PAR VALUE \$.001 PER SHARE

of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(a Delaware corporation)

for

350 SHARES OF SERIES 7 CLASS G CONVERTIBLE PREFERRED STOCK,

PAR VALUE \$.001 PER SHARE

and

35,000 WARRANTS, EACH WARRANT TO PURCHASE

ONE SHARE OF COMMON STOCK

of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(a Delaware corporation)

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Exhibit "A" - Certificate of Designations  
Exhibit "B" - Common Stock Purchase Warrant

THIS EXCHANGE AGREEMENT (the "Agreement") is effective as of the 16th day of September, 1997, by and between PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation, having offices at 1940 Northwest 67th Place, Gainesville, Florida 32653 (the "Company"), and THE INFINITY FUND, L.P., a Georgia limited partnership, and having its principal offices at 3 Piedmont Center, Suite 210, Atlanta, Georgia 30305 (the "Subscriber").

W I T N E S S E T H:

WHEREAS, the Subscriber and the Company have previously entered into a certain Subscription and Purchase Agreement dated as of the 7th day of July, 1997 ("Previous Agreement") under which 350 shares of "Series 5 Class E Convertible Preferred Stock" (the "Series 5 Preferred") were issued to the Subscriber in the form of one Series 5 Preferred certificate;

WHEREAS, the Company and the Subscriber both desire to enter into this Agreement, under which the Series 5 Preferred will be delivered and tendered to the Company in exchange for (the "Exchange") of (i) an aggregate of 350 shares of a new series of convertible preferred stock, par value \$.001 per share, to be designated by the Company's Board of Directors as "Series 7 Class G Convertible Preferred Stock" (the "Series 7 Preferred"), with such Series 7 Preferred containing such terms, conditions, restrictions and provisions as set forth in the Series 7 Preferred Certificate of Designations ("Certificate of Designations") attached hereto as Exhibit "A," and (ii) an aggregate of 35,000 common stock purchase warrants (a "Warrant" and collectively, the "Warrants"), with each common stock purchase warrant providing for the purchase of one share of the Company's Common Stock, at the exercise prices set forth herein (the Series 7 Preferred and the Warrants are collectively referred to herein from time to time as the "Securities");

WHEREAS, the Company and the Subscriber each desire that the Exchange and the execution of the Agreement act to fully and completely terminate the Subscriber's rights under the Previous Agreement and the Series 5 Preferred and will act to fully and completely release all obligations of the Company to the Subscriber under the Previous Agreement and the Series 5 Preferred;

WHEREAS, the Common Stock is listed for trading on the Boston Stock Exchange and the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), and the Company is subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and has been subject to such filing requirements for the past ninety (90) days;

WHEREAS, the Subscriber is an "accredited investor" as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act of 1933, as amended (the "Securities Act");

WHEREAS, the principal place of business of the Subscriber is located in Atlanta, Georgia;

WHEREAS, in order to induce the Subscriber to enter into this Agreement and to subscribe for and purchase the Securities on the terms and subject to the conditions hereof, the Company is granting certain registration rights under the Agreement with respect to the Common Stock issuable upon the conversion of the Series 7 Preferred and the Common Stock issuable upon the exercise of the Warrants;

WHEREAS, in reliance upon the representations made by the Subscriber in this Agreement, the transactions contemplated by this Agreement are such that the exchange of securities by the Company hereunder will be exempt from registration under applicable federal (U.S.) and state securities laws since this is an exchange offer pursuant to Section 3(a)(9) of the Securities Act, and it is a private placement and intended to be a nonpublic offering pursuant to Sections 4(2) and/or 3(b) of the Securities Act and/or Regulation D promulgated under the Securities Act; and,

WHEREAS, the Securities to be sold in accordance with this Agreement will not be quoted or listed for trading on any securities exchange, organized market or quotation system at the time of acquisition hereunder.

NOW, THEREFORE, for and in consideration of the premises, and the mutual representations, warranties, covenants and agreements set forth herein, and for other good and valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Subscription for Purchase of Securities.

1.1 Issuance of Common Stock and Warrants. In full and complete satisfaction of the Previous Agreement and the Series 5 Preferred and in full and complete termination of the Subscriber's rights under the Previous Agreement and the Series 5 Preferred and in full and complete release of all obligations of the Company to the Subscriber under the Previous Agreement and the Series 5 Preferred, the Subscriber hereby delivers the Series 5 Preferred to the Company in exchange for 350 shares of Series 7 Preferred and the Warrants to purchase up to 35,000 shares of Common Stock upon the terms and conditions set forth in this Agreement and the Warrants, with such Warrants containing the terms and conditions as stated herein.

1.1.1 Delivery. Upon receipt by the Company of the Series 5 Preferred to be cancelled, the Company shall cause to be delivered: (a) to the Subscriber, c/o Bear Stearns & Co., 55 Water Street, Third Floor, Concourse Level, South Building, New York, New York 10040-0082, a certificate or certificates representing the 350 shares of Series 7 Preferred received by the Subscriber, in such denominations as Subscriber requests in writing; and (b) to the Subscriber, (i) written evidence from the Secretary of State of the State of Delaware that the Certificate of Designations has been filed in the Office of the Secretary of State

of the State of Delaware on or before the Closing Date; (ii) a Warrant, dated the Closing Date, entitling the Subscriber to purchase after December 31, 1997, an aggregate of up to 35,000 Warrant Shares at an exercise price equal to \$1.8125 per share ("Warrant"). If at any time the Warrant Shares are covered by an effective registration statement filed with the SEC and the average closing bid price of the Common Stock for ten (10) consecutive trading days shall be in excess of \$7.00 with respect to the Warrant, then the Company shall have the option to redeem the Warrants for an amount equal to one cent (\$0.01) per Warrant Share covered by the Warrants. Each Warrant will have an expiration date of July 7, 2000.

1.1.2 Cancellation of Series 5 Preferred. The Previous Agreement and Series 5 Preferred are hereby terminated and rendered null and void in all respects. The Subscriber shall deliver the Series 5 Preferred to the Company for cancellation.

1.1.3 Restrictive Legends. Subscriber agrees that, subject to the provisions of Section 5 below, all certificates representing the Securities shall bear the restrictive legend substantially in the form set forth in Section 7 below which shall include, but not be limited to, a legend to the effect that (a) the Securities represented by such certificate have not been registered under the Securities Act, and (b) unless there is an effective registration statement relating to the Securities, the Securities may not be offered, sold, transferred, mortgaged, pledged or hypothecated without an exemption from registration and an opinion of counsel to the Company with respect thereto, or an opinion from counsel for the Subscriber, which opinion is satisfactory to the Company, to the effect that registration under the Securities Act is not required in connection with such sale or transfer and the reasons therefor. The legend on all such certificates shall make reference to the registration rights set forth in Section 5 hereof.

1.2 Discharge. The Previous Agreement, and Series 5 Preferred are hereby fully terminated in all respects. The Subscriber hereby releases, acquits and forever discharges the Company, and all of its respective subsidiaries, affiliates, agents, employees, officers, and directors, as well as their respective heirs, suc-

cessors, legal and personal representatives, and assigns of any and all of them, from and against any and all claims, liabilities, losses, damages, cause or causes of action of any kind or character whatsoever, whether liquidated, unliquidated or disputed, asserted or assertable, known or unknown, in contract or in tort, at law or in equity, which the Subscriber might now or hereafter have arising out of or in connection with or

relating to the Previous Agreement and the Series 5 Preferred.

1.3 Exchange. On the basis of the representations, warranties, covenants and agreements, and subject to the terms and conditions set forth herein, on the Closing Date, the Company agrees to exchange and deliver to the Subscriber, and the Subscriber agrees to accept in such exchange the delivery from the Company, of the Securities in exchange for the transfer of the Series 5 Preferred ("Purchase Price") from the Subscriber to the Company.

1.4 Reporting Company. Although the Securities, the shares of Common Stock issuable upon conversion of the Series 7 Preferred (the "Conversion Shares") and the shares of Common Stock issuable upon exercise of the Warrants (the "Warrant Shares") shall not be registered as of the Closing under federal or state securities laws or any rules or regulations promulgated thereunder, the Company is reporting company under the Exchange Act and has filed with the Securities and Exchange Commission (the "SEC") all reports required to be filed by the Company under Section 13 or 15(d) of the Exchange Act. The Subscriber has had the opportunity to review, and has reviewed, all such reports and information which the Subscriber deemed material to an investment decision regarding the purchase of the Securities.

1.5 Terms of the Series 7 Preferred. The Series 7 Preferred shall contain and be subject to the terms, conditions, preferences and restrictions set forth in the Certificate of Designations attached hereto as Exhibit "A," ("Certificate of Designations"), including, but not limited to Section 4.2 thereof, the right to convert the Series 7 Preferred into Common Stock of the Company based on a Conversion Price per outstanding share of Series 7 Preferred of \$1.8125 except that, in the event the average closing bid price per share of the Common Stock for 20 of any 30 consecutive trading days (a "30 Day Period") after March 1, 1998 shall be less than \$2.50 as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange and if the holders of the Series 7 Preferred have engaged in no sales of Common Stock of the Company during, and for 30 trading days prior to, the applicable 30 Day Period, the Conversion Price shall thereafter be the product of the lesser of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five trading days immediately preceding the date of the conversion notice, provided by the Subscriber to the Company multiplied by eighty percent (80%) or (ii) \$1.8125. Notwithstanding the foregoing, the Conversion Price shall not be less than a minimum of \$.75 per share ("Minimum Conversion Price"), which Minimum Conversion Price shall be eliminated from and after September 6, 1998. If any of the outstanding shares of Series 7 Preferred are converted, in whole or in part, into Common Stock pursuant to the terms set forth in the Series 7 Preferred Certificate of Designations, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a)



the aggregate Liquidation Value (being \$1,000 times the number of shares of Series 7 Preferred surrendered for conversion) of the Series 7 Preferred so surrendered for conversion by (b) the Conversion Price as of such conversion. At the time of conversion of shares of the Series 7 Preferred, the Company shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to the date of conversion, or, at the Company's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of whole shares of Common Stock which is equal to the quotient of the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 7 Preferred so converted divided by the Stock Dividend Price, as defined in the Series 7 Preferred Certificate of Designations, in effect at the date of conversion.

1.6 Terms of the Warrants. The Warrants will be substantially in the form attached hereto as Exhibit "B," subject to the terms, and with the date and exercise price of such Warrants to be as set forth herein.

## 2. Closing.

2.1 Closing. The consummation of this Agreement (the "Closing") will occur on September 16, 1997 (the "Closing Date"), at the offices of the Company or at such other mutually convenient time or at such other mutually convenient place as agreed upon by the parties.

## 3. Representations, Warranties and Covenants of Subscriber. The Subscriber hereby represents, warrants and covenants to the Company as follows:

3.1 Investment Intent. The Subscriber represents and warrants that the Securities are being, and any underlying Conversion Shares and Warrant Shares will be, purchased or acquired solely for the Subscriber's own account, for investment purposes only and not with a view toward the distribution or resale to others. The Subscriber acknowledges, understands and appreciates that the Securities have not been registered under the Securities Act by reason of a claimed exemption under the provisions of the Securities Act which depends, in large part, upon the Subscriber's representations as to investment intention, investor status, and related and other matters set forth herein. Subscriber understands that, in the view of the United States Securities and Exchange Commission (the "SEC"), among other things, a purchase now with an intent to distribute or resell would represent a purchase and acquisition with an intent inconsistent with its representation to the Company, and the SEC might regard such a transfer as a deferred sale for which the registration exemption is not available.

3.2 Certain Risk. The Subscriber recognizes that the purchase of the Securities involves a high degree of risk in that (a) the Company has sustained losses through June 30, 1997, from its operations, and may require substantial funds in addition to the proceeds of this private placement; (b) that the Company has a substantial accumulated deficit; (c) an investment in the Company is highly speculative and only investors who can afford the

loss of their entire investment should consider investing in the Company and the Securities; (d) an investor may not be able to liquidate his investment; (e) transferability of the Securities is extremely limited; (f) in the event of a disposition an investor could sustain the loss of his entire investment; (g) the Securities represent non-voting equity securities, and the right to convert into and purchase shares of voting equity securities in a corporate entity that has an accumulated deficit; (h) no return on investment, whether through distributions, appreciation, transferability or otherwise, and no performance by, through or of the Company, has been promised, assured, represented or warranted by the Company, or by any director, officer, employee, agent or representative thereof; and, (i) while the Common Stock is presently quoted and traded on the Boston Stock Exchange and the Nasdaq SmallCap Market and while the Subscriber is a beneficiary of certain registration rights provided herein, the Securities subscribed for and that are purchased under this Agreement, the Conversion Shares, and the Warrant Shares (i) are not registered under applicable federal (U. S.) or state securities laws, and thus may not be sold, conveyed, assigned or transferred unless registered under such laws or unless an exemption from registration is available under such laws, as more fully described herein, and (ii) the Securities subscribed for and that are to be purchased under this Agreement are not quoted, traded or listed for trading or quotation on the NASDAQ, or any other organized market or quotation system, and there is therefore no present public or other market for the Securities, nor can there be any assurance that the Common Stock of the Company will continue to be quoted, traded or listed for trading or quotation on the Boston Stock Exchange or the Nasdaq SmallCap Market or on any other organized market or quotation system.

3.3 Prior Investment Experience. The Subscriber acknowledges that it has prior investment experience, including investment in non-listed and non-registered securities, or has employed the services of an investment advisor, attorney or accountant to read all of the documents furnished or made available by the Company to it and to evaluate the merits and risks of such an investment on its behalf, and that it recognizes the highly speculative nature of this investment.

3.4 No Review by the SEC. The Subscriber hereby acknowledges that this offering of the Securities has not been reviewed by the SEC because this private placement is intended to be an exchange offer under Section 3(a)(9) of the Securities Act and a nonpublic offering pursuant to Sections 4(2) and/or 3(b) of the Securities Act and/or Regulation D promulgated under the Securities Act.

3.5 Not Registered. The Subscriber understands that the Securities, the Conversion Shares and the Warrant Shares have not been registered under the Securities Act by reason of a claimed exemption under the provisions of the Securities Act which depends, in part, upon the Subscriber's investment intention. In this connection, the Subscriber understands that it is the position of the SEC that the statutory basis for such exemption would not

be present if its representation merely meant that its present intention was to hold such securities for a short period, such as the capital gains period of tax statutes, for a deferred sale, for a market rise (assuming that a market develops), or for any other fixed period.

3.6 No Public Market. The Subscriber understands that there is no public market for the Series 7 Preferred or the Warrants. The Subscriber understands that although there is presently a public market for the Common Stock, including the Common Stock issuable upon conversion of the Series 7 Preferred or exercise of the Warrants, Rule 144 (the "Rule") promulgated under the Securities Act requires, among other conditions, a one-year holding period following full payment of the consideration therefor prior to the resale (in limited amounts) of securities acquired in a nonpublic offering without having to satisfy the registration requirements under the Securities Act. The Subscriber understands that the Company makes no representation or warranty regarding its fulfillment in the future of any reporting requirements under the Exchange Act, or its dissemination to the public of any current financial or other information concerning the Company, as is required by the Rule as one of the conditions of its availability. The Subscriber understands and hereby acknowledges that the Company is under no obligation to register the Securities or the Conversion Shares or the Warrant Shares under the Securities Act, except as set forth in Section 5 hereof. The Subscriber agrees to hold the Company and its directors, officers and controlling persons and their respective heirs, representatives, successors and assigns harmless and to indemnify them against all liabilities, costs and expenses incurred by them as a result of any misrepresentation made by the Subscriber contained herein or any sale or distribution by the Subscriber in violation of the Securities Act or any applicable state securities or "blue sky" laws (collectively, "Securities Laws").

3.7 Sophisticated Investor. That (a) the Subscriber is an "accredited investor," as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act, and has total assets in excess of \$5,000,000; (b) the Subscriber is able to bear the economic risks inherent in an investment in the Securities and that an important consideration bearing on its ability to bear the economic risk of the purchase of Securities is whether the Subscriber can afford a complete loss of the Subscriber's investment in the Securities and the Subscriber represents and warrants that the Subscriber can afford such a complete loss; and (c) the Subscriber has such knowledge and experience in business, financial, investment and banking matters (including, but not limited to, investments in restricted, non-listed and non-registered securities) that the Subscriber is capable of evaluating the merits, risks and advisability of an investment in the Securities.

3.8 Tax Consequences. The Subscriber acknowledges that the Company has made no representation regarding the potential or actual tax consequences for the Subscriber which will result from entering into the Agreement and from consummation of the Exchange. The Subscriber

acknowledges that it bears complete responsibility for obtaining adequate tax advice regarding the Agreement and the Exchange.

3.9 SEC Filing. The Subscriber acknowledges that it has been previously furnished with true and complete copies of the following documents which have been filed with the SEC pursuant to Sections 13(a), 14(a), 14(c) or 15(d) of the Exchange Act since January 1, 1997, and that such have been furnished to the Subscriber a reasonable time prior to the date hereof: (a) the Company's Form 10-K for the year ended December 31, 1996; (b) the Company's Form 10-Q for the quarter ended March 31, 1997; (c) the Company's Form 10-Q for the quarter ended June 30, 1997, and (d) the Company's Form 8-K, date of event reported: June 11, 1997, as amended by the Company's Form 8-K/A, dated June 25, 1997.

3.10 Documents, Information and Access. The Subscriber's decision to purchase the Securities is not based on any promotional, marketing or sales materials, and the Subscriber and its representatives have been afforded, prior to purchase thereof, the opportunity to ask questions of, and to receive answers from, the Company and its management, and has had access to all documents and information which Subscriber deems material to an investment decision with respect to the purchase of Securities hereunder.

3.11 No Registration, Review or Approval. The Subscriber acknowledges and understands that the private offering and sale of Securities pursuant to this Agreement has not been reviewed or approved by the SEC or by any state securities commission, authority or agency, and is not registered under the Securities Laws. The Subscriber acknowledges, understands and agrees that the Shares are being exchanged hereunder pursuant to (i) an exchange offer exemption under Section 3(a)(9) of the Securities Act and (ii) (x) a private placement exemption to the registration provisions of the Securities Act pursuant to Section 3(b) and/or Section 4(2) of such Securities Act and/or Regulation D promulgated under the Securities Act) and (y) a similar exemption to the registration provisions of applicable state securities laws.

3.12 Transfer Restrictions. That Subscriber will not transfer any Securities purchased under this Agreement or any Conversion Shares or Warrant Shares purchased under this Agreement unless such Series 7 Preferred, Conversion Shares, or Warrant Shares, whichever is applicable, are registered under the Securities Laws, or unless an exemption is available under such Securities Laws, and the Company may, if it chooses, where an exemption from registration is claimed by such Subscriber, condition any transfer of Securities, Conversion Shares or Warrant Shares out of the Subscriber's name on an opinion of the Company's counsel, to the effect that the proposed transfer is being effected in accordance with, and does not violate, an applicable exemption from registration under the Securities Laws, or an opinion of counsel to the Subscriber, which opinion is satisfactory to the Company, to the effect that registration under the Securities Act is not required in connection with such

sale or transfer and the reasons therefor.

3.13 No Short Sale. The Subscriber expressly agrees that until such time that it has sold all of the Securities and/or all of the Conversion Shares and Warrant Shares that it shall not, directly or indirectly, through an affiliate (as that term is defined under Rule 405 promulgated under the Securities Act) or by, with or through an unrelated third party or entity, whether or not pursuant to a written or oral understanding, agreement, arrangement, scheme, or artifice of nature whatsoever, engage in the short selling of the Company's Common Stock or any other equity securities of the Company, whether now existing or hereafter issued, or engage in any other activity of any nature whatsoever that has the same effect as a short sale, or is a de facto or de jure short sale, of the Company's Common Stock or any other equity security of the Company, whether now existing or hereafter issued, including, but not limited to, the sale of any rights pursuant to any understanding, agreement, arrangement, scheme or artifice of any nature whatsoever, whether oral or in writing, relative to the Company's Common Stock or any other equity securities of the Company whether now existing or hereafter created. The Subscriber agrees that it will not engage, and will cause its affiliates not to engage, in any activity designed to reduce the price of the Company's Common Stock, as quoted on the Boston Stock Exchange or the NASDAQ, in connection with the Subscriber's conversion of any of the Series 7 Preferred. The Subscriber agrees to refrain, and cause its affiliates to refrain, from engaging in, or inducing others to engage in, any activity relating to the Company or Common Stock of the Company that is proscribed under Regulation M promulgated under the Exchange Act.

3.14 Reliance. The Subscriber understands and acknowledges that the Company is relying upon all of the representations, warranties, covenants, understandings, acknowledgements and agreements contained in this Agreement in determining whether to accept this subscription and to sell and issue the Securities to the Subscriber.

3.15 Accuracy or Representations and Warranties. All of the representations, warranties, understandings and acknowledgments that Subscriber has made herein are true and correct in all material respects as of the date of execution hereof. The Subscriber will perform and comply fully in all material respects with all covenants and agreements set forth herein, and the Subscriber covenants and agrees that until the acceptance of this Agreement by the Company, the Subscriber shall inform the Company immediately in writing of any changes in any of the representations or warranties provided or contained herein.

3.16 Indemnity. The Subscriber hereby agrees to indemnify and hold harmless the Company, and the Company's successors and assigns, from, against and in all respects of any demands, claims, actions or causes of action, assessments, liabilities, losses, costs, damages, penalties, charges, fines or expenses (including, without limitation, interest, penalties, and attorney and

accountants' fees, disbursements and expenses), arising out of or relating to any breach by Subscriber of any representations, warranty, covenant or agreement made by Subscriber in this Agreement. Such right to indemnification shall be in addition to any and all other rights of the Company under this Agreement or otherwise, at law or in equity.

3.17 Survival. The Subscriber expressly acknowledges and agrees that all of its representations, warranties, agreements and covenants set forth in this Agreement shall be of the essence hereof and shall survive the execution, delivery and Closing of this Agreement, the sale and purchase of the Securities, the conversion of the Series 7 Preferred, exercise of the Warrants, and the sale of the Conversion Shares and the Warrant Shares.

4. Representations, Warranties and Covenants of the Company. In order to induce Subscriber to enter into this Agreement and to exchange the Series 5 Preferred for the Securities, the Company hereby represents, warrants and covenants to Subscriber as follows:

4.1 Organization, Authority, Qualification. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware. The Company has full corporate power and authority to own and operate its properties and assets and to conduct and carry on its business as it is now being conducted and operated.

4.2 Authorization. The Company has full power and authority to execute and deliver this Agreement and to perform its obligations under and consummate the transactions contemplated by this Agreement. Upon the execution of this Agreement by the Company and delivery of the Securities, this Agreement shall have been duly and validly executed and delivered by the Company and shall constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms.

4.3 Ownership of, and Title to, Securities. The Securities to be purchased by the Subscriber are, and all Conversion Shares and Warrant Shares, when issued, will be, duly authorized, validly issued, fully paid and nonassessable shares of the capital stock of the Company, free of personal liability. Upon consummation of the purchase of the Securities (and upon the exercise of the Warrants and conversion of the Series 7 Preferred, in whole or in part) pursuant to this Agreement, the Subscriber will own and acquire title to the Securities (and the Warrant Shares and the Conversion Shares, as the case may be) free and clear of any and all proxies, voting trusts, pledges, options, restrictions, or other legal or equitable encumbrance of any nature whatsoever (other than the restrictions on transfer due to Securities Laws or as otherwise provided for in this Agreement or the Certificate of Designation).

4.4 Exemption from Registration. The offer and exchange of Securities to the Subscriber in accordance with the terms and provisions of this Agreement is being effected in accordance with the Securities Act, pursuant to an

exchange offer exemption to the registration provision of the Securities Act pursuant to Section 3(a)(9) thereunder and to a private placement exemption to the registration provisions of the Act pursuant to Section 3(b) and/or 4(2) of such Act and/or Regulation D promulgated under the Securities Act, based on the representations, warranties and covenants made by the Subscriber contained in this Agreement.

5. Registration Rights. In order to induce the Subscriber to enter into this Agreement and purchase the Securities, the Company hereby covenants and agrees to grant to the Subscriber the rights set forth in this Section 5 with respect to the registration of the Warrant Shares and the Conversion Shares.

5.1 Registration. Subject to the terms of Section 5 hereof, the Company agrees that by October 27, 1997, it shall prepare and file with the SEC, a registration statement on Form S-3 or equivalent form (the "Registration Statement") and such other documents, including a prospectus, as may be necessary in the opinion of counsel for the Company in order to comply with the provisions of the Securities Act, so as to permit a public offering and sale by the Subscriber of up to 200,000 shares of Common Stock issuable upon conversion of the Series 7 Preferred, plus up to 36,000 shares of Common Stock, if any, issuable as payment of dividends on the Series 7 Preferred Stock pursuant to the terms of the Series 7 Preferred, and 35,000 shares of Common Stock issuable upon exercise of the Warrants. The Company shall use its reasonable efforts to cause such Registration Statement to become effective at the earliest possible date after filing. In connection with the offering of such Common Stock registered pursuant to this Section 5, the Company shall take such reasonable actions as it deems necessary to qualify the Common Stock issuable upon conversion of the Series 7 Preferred, the Common Stock issuable as payment of dividends on the Series 7 Preferred, and the Common Stock issuable upon exercise of the Warrant, covered by such Registration Statement under such "blue sky" or other state securities laws for offer and sale as shall be reasonably necessary to permit the public offering and sale of such shares of Common Stock covered by such Registration Statement; provided, however, that the Company shall not be required (a) to qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this subparagraph, (b) to subject itself to taxation in any such jurisdiction, or (c) to consent to general service of process in any such jurisdiction. It is expressly agreed that in no event are any registration rights being granted to the Series 7 Preferred itself, but only with respect to up to 200,000 shares of the underlying Conversion Shares issuable upon exercise of the Series 7 Preferred, up to 36,000 shares of Common Stock that the Company may issue in payment of dividends on the Series 7 Preferred, and up to 35,000 shares of the Warrant Shares issuable upon the exercise of the Warrants.

5.2 Current Registration Statement. Once effective, the Company shall use its reasonable efforts to cause such Registration Statement filed hereunder to remain current and effective for a period of two (2) years or until the Conversion Shares covered by such Registration Statement

are sold by the Subscriber, whichever is sooner. The Subscriber shall promptly provide all such information and materials and take all such action as may be required in order to permit the Company to comply with all applicable requirements of the SEC and to obtain any desired acceleration of the effective date of such registration statement.

5.3 Other Provisions. In connection with the offering of any Conversion Shares and/or Warrant Shares registered pursuant to this Section 5, the Company shall furnish to the Subscriber such number of copies of any final prospectus as it may reasonably request in order to effect the offering and sale of the Conversion Shares and/or Warrant Shares to be offered and sold under such Registration Statement. In connection with any offering of Conversion Shares and/or Warrant Shares registered pursuant to this Section 5, the Company shall (a) furnish to the underwriters (if any), at the Company's expense, unlegended certificates representing ownership of the Conversion Shares and/or Warrant Shares sold under such Registration Statement in such denominations as requested and (b) instruct any transfer agent and registrar of the Conversion Shares and/or Warrant Shares sold under such Registration Statement to release immediately any stop transfer order, and to remove any restrictive legend, with respect to such Conversion Shares and/or Warrant Shares included in any registration becoming effective pursuant to this Agreement upon the sale of such shares by the Subscriber.

5.4 Costs. Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the Registration Statement relating to the Conversion Shares and the Warrant Shares under this Section 5, including filing fees, fees, costs and disbursements of any counsel, accountants and other consultants representing the Company in connection therewith. Notwithstanding anything set forth herein to the contrary, Subscriber shall be responsible for and pay any and all underwriting discounts and commissions in connection with the sale of the Conversion Shares and/or Warrant Shares pursuant hereto or the Registration Statement and all fees of its legal counsel and other advisors retained in connection with reviewing such Registration Statement.

5.5 Successors. The Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business, properties, stock or assets of the Company, to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place.

## 6. Indemnification.

6.1 By the Company. Subject to the terms of this Section 6, the Company will indemnify and hold harmless the Subscriber, its directors and officers, and any underwriter (as defined in the Securities Act) for the



Subscriber and each person, if any, who controls the Subscriber or such underwriter within the meaning of the Act, from and against, and will reimburse the Subscriber and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement filed with the SEC pursuant to Section 5, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Subscriber, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

6.2 By the Subscriber. Subject to the terms of this Section 6, the Subscriber will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expense to which the Company or any controlling person and/or any underwriter may become subject under the Securities Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such Registration Statement filed with the SEC pursuant to Section 5, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on behalf of, the Subscriber specifically for use in the preparation thereof.

6.3 Procedure. Promptly after receipt by an indemnified party pursuant to the provisions of Section 6.1 or 6.2 of notice of the commencement of any action involving the subject matter of the foregoing indemnity provisions, such indemnified party will, if a claim thereof is to be made against the indemnifying party pursuant to the provisions of Section 6.1 or 6.2, promptly notify the indemnifying party of the commencement thereof; but the omission to so notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party otherwise than

hereunder. In case such action is brought against any indemnified party and the indemnified party notifies the indemnifying party of the commencement thereof, the indemnifying party shall have the right to participate in, and, to the extent that it may wish, assume the defense thereof; or, if there is a conflict of interest which would prevent counsel for the indemnifying party from also representing the indemnified party, the indemnified parties have the right to select only one (1) separate counsel to participate in the defense of such action on behalf of all such indemnified parties. After notice from the indemnifying parties to such indemnified party of the indemnifying parties' election so to assume the defense thereof, the indemnifying parties will not be liable to such indemnified parties pursuant to the provisions of said Section 6.1 or 6.2 for any legal or other expense subsequently incurred by such indemnified parties in connection with the defense thereof, other than reasonable costs of investigation, unless (a) the indemnified parties shall have employed counsel in accordance with the provisions of the preceding sentence; (b) the indemnifying parties shall not have employed counsel satisfactory to the indemnified parties to represent the indemnified parties within a reasonable time after the notice of the commencement of the action or (c) the indemnifying party has authorized the employment of counsel for the indemnified party at the expense of the indemnifying parties.

7. Securities Legends and Notices. Subscriber represents and warrants that it has read, considered and understood the following legends, and agrees that such legends, substantially in the form and substance set forth below, shall be placed on all of the certificates representing the Series 7 Preferred and Warrants:

Series 7 Preferred Legends

NEITHER THIS PREFERRED STOCK NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE CONVERSION OF THIS PREFERRED STOCK HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS PREFERRED STOCK AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THIS PREFERRED STOCK MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR WITHOUT THE PRIOR WRITTEN CONSENT OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. AND AN OPINION OF PERMA-FIX ENVIRONMENTAL SERVICES, INC.'S COUNSEL, OR AN OPINION FROM COUNSEL FOR THE HOLDER HEREOF, WHICH OPINION IS SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS PREFERRED STOCK ARE ALSO SUBJECT TO THE REGISTRATION RIGHTS SET FORTH IN THAT CERTAIN EXCHANGE AGREEMENT BY AND BETWEEN THE HOLDER HEREOF AND THE COMPANY, DATED SEPTEMBER 16, 1997, A COPY OF WHICH IS ON FILE AT THE COMPANY'S PRINCIPAL EXECUTIVE OFFICE.

## Warrant Legends

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT, HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR WITHOUT THE PRIOR WRITTEN CONSENT OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. AND AN OPINION OF PERMA-FIX ENVIRONMENTAL SERVICES, INC.'S COUNSEL, OR AN OPINION FROM COUNSEL FOR THE HOLDER HEREOF, WHICH OPINION IS SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES ISSUABLE UPON EXERCISE ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH IN THAT CERTAIN EXCHANGE AGREEMENT BETWEEN THE HOLDER HEREOF AND THE COMPANY, DATED SEPTEMBER 16, 1997, A COPY OF WHICH IS ON FILE AT THE COMPANY'S PRINCIPAL EXECUTIVE OFFICE.

### 8. Miscellaneous.

8.1 Assignment and Power of Attorney. For purposes of affecting the exchange of the Series 5 Preferred in accordance with the terms of this Agreement, the Subscriber does hereby assign all of its right, title and interest in and to the Series 5 Preferred to the Company and irrevocably makes, constitutes and appoints the Company as the true and lawful agents and attorneys-in-fact of the Subscriber ("Attorney-In-Fact") with full power and authority (except as provided below) to act hereunder individually, or through duly appointed successor attorneys-in-fact, in its sole discretion, all as hereinafter provided, in the name of, for and on behalf of the Subscriber, as fully as could the Subscriber if present and acting in person, with respect to all matters in connection with the transfer of the Series 5 Preferred.

8.2 Amendment; Waiver. Neither this Agreement nor the Warrants shall be changed, modified or amended in any respect except by the mutual written agreement of the parties hereto. Any provision of this Agreement or the Warrants may be waived in writing by the party which is entitled to the benefits thereof. No waiver of any provision of this Agreement or the Warrants shall be deemed to, or shall constitute a waiver of, any other provision hereof or thereof (whether or not similar), nor shall nay such waiver constitute a continuing waiver.

8.3 Binding Effect; Assignment. Neither this Agreement nor the Warrants, or any rights or obligations hereunder or thereunder, are assignable by the Subscriber.

8.4 Governing Law; Litigation Costs. This Agreement and its validity, construction and performance shall be governed

in all respects by the internal laws of the State of Delaware without giving effect to such State's conflicts of laws provisions. Each of the Company and the Subscriber expressly and irrevocably consent to the jurisdiction and venue of the federal courts located in Wilmington, Delaware. Each of the parties agrees that in the event either party brings an action to enforce any of the provisions of this Agreement or to recovery for an alleged breach of any of the provisions of this Agreement, each party shall be responsible for its own legal costs and disbursements during the pendency of any such action; provided, however, that after any such action has been reduced to a final, unappealable judgment, the prevailing party shall be entitled to recover from the other party all reasonable, documented attorneys' fees and disbursements and court costs from the other party.

8.5 Severability. Any term or provisions of this Agreement or the Warrants which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction only, be ineffective only to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or thereof affecting the validity or enforceability of such provision in any other jurisdiction.

8.6 Headings. The captions, headings and titles preceding the text of each or any Section, subsection or paragraph hereof are for convenience of reference only and shall not affect the construction, meaning or interpretation of this Agreement or the Warrants or any term or provisions hereof or thereof.

8.7 Counterparts. This Agreement may be executed in one or more original or facsimile counterparts, each of which shall be deemed an original and all of which shall be considered one and the same agreement, binding on all of the parties hereto, notwithstanding that all parties are not signatories to the same counterpart. Upon delivery of an executed counterpart by the undersigned Subscriber to the Company, which in turn is executed and delivered by the Company, this Agreement shall be binding as one original agreement between Subscriber and the Company.

8.8 Transfer Taxes. Each party hereto shall pay all such sales, transfer, use, gross receipts, registration and similar taxes arising out of, or in connection with, the transactions contemplated by this Agreement and the Warrants (collectively, the "Transfer Taxes") as are payable by such party under applicable law, and the Company shall pay the cost of any documentary stock transfer stamps, if any, to be affixed to the certificates representing the Shares and any Warrant Shares to be sold.

8.9 Entire Agreement. This Agreement, along with the Warrants and the Certificate of Designations, merges and supersedes any and all prior agreements, understandings, discussions, assurances, promises, representations or warranties among the parties with respect to the subject matter hereof, and contains the entire agreement among the parties with respect to the subject matter set forth

herein and therein.

8.10 Authority; Enforceability. The Subscriber is duly authorized to enter into this Agreement and to perform all of its obligations hereunder. Upon the execution and delivery of this Agreement by the Subscriber, this Agreement shall be enforceable against the Subscriber in accordance with its terms.

8.11 Notices. Except as otherwise specified herein to the contrary, all notices, requests, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand or by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U. S. Express Mail service, or by private overnight mail service (e.g., Federal Express). Any such notice shall be deemed to have been given (i) on the business day actually received if given by hand or by fax, (ii) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (iii) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt

requested, and all such notices shall be sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 8.11:

If to the Company: Dr. Louis F. Centofanti  
Perma-Fix Environmental  
Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653  
Fax No.: (352) 373-0040

with copies Irwin H. Steinhorn, Esquire  
simultaneously by: Conner & Winters  
like means to: One Leadership Square, Suite 1700  
211 North Robinson  
Oklahoma City, Oklahoma 73102  
Fax No.: (405) 232-2695

If to the Subscriber: The Infinity Fund, L.P.  
3 Piedmont Center, Suite 210  
Atlanta, Georgia 30305  
Attention: Mr. Barry Pearl  
Fax No.: (404) 231-1375

8.12 No Third Party Beneficiaries. This Agreement and the rights, benefits, privileges, interests, duties and obligations contained or referred to herein shall be solely for the benefit of the parties hereto and no third party shall have any rights or benefits hereunder as a third party beneficiary or otherwise hereunder.

8.13 Public Announcements. Neither Subscriber nor any officer, director, stockholder, employee, affiliate or affiliated person or entity of Subscriber, shall make or issue any press releases or otherwise make any public statements or make any disclosures to any third person or entity with respect to the transactions contemplated herein and will not make or issue any press releases or

otherwise make any public statements of any nature whatsoever with respect to the Company without the express prior approval of the Company.

IN WITNESS WHEREOF, the Company and the undersigned Subscriber have each duly executed this Agreement on the \_\_\_ day of October, 1997 but is considered to be effective as of the 16th day of September, 1997.

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By \_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

THE INFINITY FUND, L.P.

By \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EXCHANGE AGREEMENT

exchanging

350 SHARES OF SERIES 5 CLASS E CONVERTIBLE PREFERRED STOCK,

PAR VALUE \$.001 PER SHARE

of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(a Delaware corporation)

for

350 SHARES OF SERIES 7 CLASS G CONVERTIBLE PREFERRED STOCK,

PAR VALUE \$.001 PER SHARE

and

35,000 WARRANTS, EACH WARRANT TO PURCHASE

ONE SHARE OF COMMON STOCK

of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(a Delaware corporation)

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Exhibit "A" - Certificate of Designations  
Exhibit "B" - Common Stock Purchase Warrant

THIS EXCHANGE AGREEMENT (the "Agreement") is effective as of the 16th day of September, 1997, by and between PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation, having offices at 1940 Northwest 67th Place, Gainesville, Florida 32653 (the "Company"), and THE INFINITY FUND, L.P., a Georgia limited partnership, and having its principal offices at 3 Piedmont Center, Suite 210, Atlanta, Georgia 30305 (the "Subscriber").

W I T N E S S E T H:

WHEREAS, the Subscriber and the Company have previously entered into a certain Subscription and Purchase Agreement dated as of the 7th day of July, 1997 ("Previous Agreement") under which 350 shares of "Series 5 Class E Convertible Preferred Stock" (the "Series 5 Preferred") were issued to the Subscriber in the form of one Series 5 Preferred certificate;

WHEREAS, the Company and the Subscriber both desire to enter into this Agreement, under which the Series 5 Preferred will be delivered and tendered to the Company in exchange for (the "Exchange") of (i) an aggregate of 350 shares of a new series of convertible preferred stock, par value \$.001 per share, to be designated by the Company's Board of Directors as "Series 7 Class G Convertible Preferred Stock" (the "Series 7 Preferred"), with such Series 7 Preferred containing such terms, conditions, restrictions and provisions as set forth in the Series 7 Preferred Certificate of Designations ("Certificate of Designations") attached hereto as Exhibit "A," and (ii) an aggregate of 35,000 common stock purchase warrants (a "Warrant" and collectively, the "Warrants"), with each common stock purchase warrant providing for the purchase of one share of the Company's Common Stock, at the exercise prices set forth herein (the Series 7 Preferred and the Warrants are collectively referred to herein from time to time as the "Securities");

WHEREAS, the Company and the Subscriber each desire that the Exchange and the execution of the Agreement act to fully and completely terminate the Subscriber's rights under the Previous Agreement and the Series 5 Preferred and will act to fully and completely release all obligations of the Company to the Subscriber under the Previous Agreement and the Series 5 Preferred;

WHEREAS, the Common Stock is listed for trading on the Boston Stock Exchange and the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), and the Company is subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and has been subject to such filing requirements for the past ninety (90) days;

WHEREAS, the Subscriber is an "accredited investor" as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act of 1933, as amended (the "Securities Act");

WHEREAS, the principal place of business of the Subscriber is located in Atlanta, Georgia;

WHEREAS, in order to induce the Subscriber to enter into this Agreement and to subscribe for and purchase the Securities on the terms and subject to the conditions hereof, the Company is granting certain registration rights under the Agreement with respect to the Common Stock issuable upon the conversion of the Series 7 Preferred and the Common Stock issuable upon the exercise of the Warrants;

WHEREAS, in reliance upon the representations made by the Subscriber in this Agreement, the transactions contemplated by this Agreement are such that the exchange of securities by the Company hereunder will be exempt from registration under applicable federal (U.S.) and state securities laws since this is an exchange offer pursuant to Section 3(a)(9) of the Securities Act, and it is a private placement and intended to be a nonpublic offering pursuant to Sections 4(2) and/or 3(b) of the Securities Act and/or Regulation D promulgated under the Securities Act; and,

WHEREAS, the Securities to be sold in accordance with this Agreement will not be quoted or listed for trading on any securities exchange, organized market or quotation system at the time of acquisition hereunder.

NOW, THEREFORE, for and in consideration of the premises, and the mutual representations, warranties, covenants and agreements set forth herein, and for other good and valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Subscription for Purchase of Securities.

1.1 Issuance of Common Stock and Warrants. In full and complete satisfaction of the Previous Agreement and the Series 5 Preferred and in full and complete termination of the Subscriber's rights under the Previous Agreement and the Series 5 Preferred and in full and complete release of all obligations of the Company to the Subscriber under the Previous Agreement and the Series 5 Preferred, the Subscriber hereby delivers the Series 5 Preferred to the Company in exchange for 350 shares of Series 7 Preferred and the Warrants to purchase up to 35,000 shares of Common Stock upon the terms and conditions set forth in this Agreement and the Warrants, with such Warrants containing the terms and conditions as stated herein.

1.1.1 Delivery. Upon receipt by the Company of the Series 5 Preferred to be cancelled, the Company shall cause to be delivered: (a) to the Subscriber, c/o Bear Stearns & Co., 55 Water Street, Third Floor, Concourse Level, South Building, New York, New York 10040-0082, a certificate or certificates representing the 350 shares of Series 7 Preferred received by the Subscriber, in such denominations as Subscriber requests in writing; and (b) to the Subscriber, (i) written evidence from the Secretary of State of the State of Delaware that the Certificate of Designations has been filed in the Office of the Secretary of State

of the State of Delaware on or before the Closing Date; (ii) a Warrant, dated the Closing Date, entitling the Subscriber to purchase after December 31, 1997, an aggregate of up to 35,000 Warrant Shares at an exercise price equal to \$1.8125 per share ("Warrant"). If at any time the Warrant Shares are covered by an effective registration statement filed with the SEC and the average closing bid price of the Common Stock for ten (10) consecutive trading days shall be in excess of \$7.00 with respect to the Warrant, then the Company shall have the option to redeem the Warrants for an amount equal to one cent (\$0.01) per Warrant Share covered by the Warrants. Each Warrant will have an expiration date of July 7, 2000.

1.1.2 Cancellation of Series 5 Preferred. The Previous Agreement and Series 5 Preferred are hereby terminated and rendered null and void in all respects. The Subscriber shall deliver the Series 5 Preferred to the Company for cancellation.

1.1.3 Restrictive Legends. Subscriber agrees that, subject to the provisions of Section 5 below, all certificates representing the Securities shall bear the restrictive legend substantially in the form set forth in Section 7 below which shall include, but not be limited to, a legend to the effect that (a) the Securities represented by such certificate have not been registered under the Securities Act, and (b) unless there is an effective registration statement relating to the Securities, the Securities may not be offered, sold, transferred, mortgaged, pledged or hypothecated without an exemption from registration and an opinion of counsel to the Company with respect thereto, or an opinion from counsel for the Subscriber, which opinion is satisfactory to the Company, to the effect that registration under the Securities Act is not required in connection with such sale or transfer and the reasons therefor. The legend on all such certificates shall make reference to the registration rights set forth in Section 5 hereof.

1.2 Discharge. The Previous Agreement, and Series 5 Preferred are hereby fully terminated in all respects. The Subscriber hereby releases, acquits and forever discharges the Company, and all of its respective subsidiaries, affiliates, agents, employees, officers, and directors, as well as their respective heirs, suc-

cessors, legal and personal representatives, and assigns of any and all of them, from and against any and all claims, liabilities, losses, damages, cause or causes of action of any kind or character whatsoever, whether liquidated, unliquidated or disputed, asserted or assertable, known or unknown, in contract or in tort, at law or in equity, which the Subscriber might now or hereafter have arising out of or in connection with or

relating to the Previous Agreement and the Series 5 Preferred.

1.3 Exchange. On the basis of the representations, warranties, covenants and agreements, and subject to the terms and conditions set forth herein, on the Closing Date, the Company agrees to exchange and deliver to the Subscriber, and the Subscriber agrees to accept in such exchange the delivery from the Company, of the Securities in exchange for the transfer of the Series 5 Preferred ("Purchase Price") from the Subscriber to the Company.

1.4 Reporting Company. Although the Securities, the shares of Common Stock issuable upon conversion of the Series 7 Preferred (the "Conversion Shares") and the shares of Common Stock issuable upon exercise of the Warrants (the "Warrant Shares") shall not be registered as of the Closing under federal or state securities laws or any rules or regulations promulgated thereunder, the Company is reporting company under the Exchange Act and has filed with the Securities and Exchange Commission (the "SEC") all reports required to be filed by the Company under Section 13 or 15(d) of the Exchange Act. The Subscriber has had the opportunity to review, and has reviewed, all such reports and information which the Subscriber deemed material to an investment decision regarding the purchase of the Securities.

1.5 Terms of the Series 7 Preferred. The Series 7 Preferred shall contain and be subject to the terms, conditions, preferences and restrictions set forth in the Certificate of Designations attached hereto as Exhibit "A," ("Certificate of Designations"), including, but not limited to Section 4.2 thereof, the right to convert the Series 7 Preferred into Common Stock of the Company based on a Conversion Price per outstanding share of Series 7 Preferred of \$1.8125 except that, in the event the average closing bid price per share of the Common Stock for 20 of any 30 consecutive trading days (a "30 Day Period") after March 1, 1998 shall be less than \$2.50 as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange and if the holders of the Series 7 Preferred have engaged in no sales of Common Stock of the Company during, and for 30 trading days prior to, the applicable 30 Day Period, the Conversion Price shall thereafter be the product of the lesser of (i) the average closing bid quotation of the Common Stock as reported on the over-the-counter market, or the closing sale price if listed on a national securities exchange, for the five trading days immediately preceding the date of the conversion notice, provided by the Subscriber to the Company multiplied by eighty percent (80%) or (ii) \$1.8125. Notwithstanding the foregoing, the Conversion Price shall not be less than a minimum of \$.75 per share ("Minimum Conversion Price"), which Minimum Conversion Price shall be eliminated from and after September 6, 1998. If any of the outstanding shares of Series 7 Preferred are converted, in whole or in part, into Common Stock pursuant to the terms set forth in the Series 7 Preferred Certificate of Designations, the number of shares of whole Common Stock to be issued to the holder as a result of such conversion shall be determined by dividing (a)

the aggregate Liquidation Value (being \$1,000 times the number of shares of Series 7 Preferred surrendered for conversion) of the Series 7 Preferred so surrendered for conversion by (b) the Conversion Price as of such conversion. At the time of conversion of shares of the Series 7 Preferred, the Company shall pay in cash to the holder thereof an amount equal to all unpaid and accrued dividends, if any, accrued thereon to the date of conversion, or, at the Company's option, in lieu of paying cash for the accrued and unpaid dividends, issue that number of whole shares of Common Stock which is equal to the quotient of the amount of such unpaid and accrued dividends to the date of conversion on the shares of Series 7 Preferred so converted divided by the Stock Dividend Price, as defined in the Series 7 Preferred Certificate of Designations, in effect at the date of conversion.

1.6 Terms of the Warrants. The Warrants will be substantially in the form attached hereto as Exhibit "B," subject to the terms, and with the date and exercise price of such Warrants to be as set forth herein.

## 2. Closing.

2.1 Closing. The consummation of this Agreement (the "Closing") will occur on September 16, 1997 (the "Closing Date"), at the offices of the Company or at such other mutually convenient time or at such other mutually convenient place as agreed upon by the parties.

## 3. Representations, Warranties and Covenants of Subscriber. The Subscriber hereby represents, warrants and covenants to the Company as follows:

3.1 Investment Intent. The Subscriber represents and warrants that the Securities are being, and any underlying Conversion Shares and Warrant Shares will be, purchased or acquired solely for the Subscriber's own account, for investment purposes only and not with a view toward the distribution or resale to others. The Subscriber acknowledges, understands and appreciates that the Securities have not been registered under the Securities Act by reason of a claimed exemption under the provisions of the Securities Act which depends, in large part, upon the Subscriber's representations as to investment intention, investor status, and related and other matters set forth herein. Subscriber understands that, in the view of the United States Securities and Exchange Commission (the "SEC"), among other things, a purchase now with an intent to distribute or resell would represent a purchase and acquisition with an intent inconsistent with its representation to the Company, and the SEC might regard such a transfer as a deferred sale for which the registration exemption is not available.

3.2 Certain Risk. The Subscriber recognizes that the purchase of the Securities involves a high degree of risk in that (a) the Company has sustained losses through June 30, 1997, from its operations, and may require substantial funds in addition to the proceeds of this private placement; (b) that the Company has a substantial accumulated deficit; (c) an investment in the Company is highly speculative and only investors who can afford the

loss of their entire investment should consider investing in the Company and the Securities; (d) an investor may not be able to liquidate his investment; (e) transferability of the Securities is extremely limited; (f) in the event of a disposition an investor could sustain the loss of his entire investment; (g) the Securities represent non-voting equity securities, and the right to convert into and purchase shares of voting equity securities in a corporate entity that has an accumulated deficit; (h) no return on investment, whether through distributions, appreciation, transferability or otherwise, and no performance by, through or of the Company, has been promised, assured, represented or warranted by the Company, or by any director, officer, employee, agent or representative thereof; and, (i) while the Common Stock is presently quoted and traded on the Boston Stock Exchange and the Nasdaq SmallCap Market and while the Subscriber is a beneficiary of certain registration rights provided herein, the Securities subscribed for and that are purchased under this Agreement, the Conversion Shares, and the Warrant Shares (i) are not registered under applicable federal (U. S.) or state securities laws, and thus may not be sold, conveyed, assigned or transferred unless registered under such laws or unless an exemption from registration is available under such laws, as more fully described herein, and (ii) the Securities subscribed for and that are to be purchased under this Agreement are not quoted, traded or listed for trading or quotation on the NASDAQ, or any other organized market or quotation system, and there is therefore no present public or other market for the Securities, nor can there be any assurance that the Common Stock of the Company will continue to be quoted, traded or listed for trading or quotation on the Boston Stock Exchange or the Nasdaq SmallCap Market or on any other organized market or quotation system.

3.3 Prior Investment Experience. The Subscriber acknowledges that it has prior investment experience, including investment in non-listed and non-registered securities, or has employed the services of an investment advisor, attorney or accountant to read all of the documents furnished or made available by the Company to it and to evaluate the merits and risks of such an investment on its behalf, and that it recognizes the highly speculative nature of this investment.

3.4 No Review by the SEC. The Subscriber hereby acknowledges that this offering of the Securities has not been reviewed by the SEC because this private placement is intended to be an exchange offer under Section 3(a)(9) of the Securities Act and a nonpublic offering pursuant to Sections 4(2) and/or 3(b) of the Securities Act and/or Regulation D promulgated under the Securities Act.

3.5 Not Registered. The Subscriber understands that the Securities, the Conversion Shares and the Warrant Shares have not been registered under the Securities Act by reason of a claimed exemption under the provisions of the Securities Act which depends, in part, upon the Subscriber's investment intention. In this connection, the Subscriber understands that it is the position of the SEC that the statutory basis for such exemption would not

be present if its representation merely meant that its present intention was to hold such securities for a short period, such as the capital gains period of tax statutes, for a deferred sale, for a market rise (assuming that a market develops), or for any other fixed period.

3.6 No Public Market. The Subscriber understands that there is no public market for the Series 7 Preferred or the Warrants. The Subscriber understands that although there is presently a public market for the Common Stock, including the Common Stock issuable upon conversion of the Series 7 Preferred or exercise of the Warrants, Rule 144 (the "Rule") promulgated under the Securities Act requires, among other conditions, a one-year holding period following full payment of the consideration therefor prior to the resale (in limited amounts) of securities acquired in a nonpublic offering without having to satisfy the registration requirements under the Securities Act. The Subscriber understands that the Company makes no representation or warranty regarding its fulfillment in the future of any reporting requirements under the Exchange Act, or its dissemination to the public of any current financial or other information concerning the Company, as is required by the Rule as one of the conditions of its availability. The Subscriber understands and hereby acknowledges that the Company is under no obligation to register the Securities or the Conversion Shares or the Warrant Shares under the Securities Act, except as set forth in Section 5 hereof. The Subscriber agrees to hold the Company and its directors, officers and controlling persons and their respective heirs, representatives, successors and assigns harmless and to indemnify them against all liabilities, costs and expenses incurred by them as a result of any misrepresentation made by the Subscriber contained herein or any sale or distribution by the Subscriber in violation of the Securities Act or any applicable state securities or "blue sky" laws (collectively, "Securities Laws").

3.7 Sophisticated Investor. That (a) the Subscriber is an "accredited investor," as such term is defined in Rule 501 of Regulation D promulgated under the Securities Act, and has total assets in excess of \$5,000,000; (b) the Subscriber is able to bear the economic risks inherent in an investment in the Securities and that an important consideration bearing on its ability to bear the economic risk of the purchase of Securities is whether the Subscriber can afford a complete loss of the Subscriber's investment in the Securities and the Subscriber represents and warrants that the Subscriber can afford such a complete loss; and (c) the Subscriber has such knowledge and experience in business, financial, investment and banking matters (including, but not limited to, investments in restricted, non-listed and non-registered securities) that the Subscriber is capable of evaluating the merits, risks and advisability of an investment in the Securities.

3.8 Tax Consequences. The Subscriber acknowledges that the Company has made no representation regarding the potential or actual tax consequences for the Subscriber which will result from entering into the Agreement and from consummation of the Exchange. The Subscriber

acknowledges that it bears complete responsibility for obtaining adequate tax advice regarding the Agreement and the Exchange.

3.9 SEC Filing. The Subscriber acknowledges that it has been previously furnished with true and complete copies of the following documents which have been filed with the SEC pursuant to Sections 13(a), 14(a), 14(c) or 15(d) of the Exchange Act since January 1, 1997, and that such have been furnished to the Subscriber a reasonable time prior to the date hereof: (a) the Company's Form 10-K for the year ended December 31, 1996; (b) the Company's Form 10-Q for the quarter ended March 31, 1997; (c) the Company's Form 10-Q for the quarter ended June 30, 1997, and (d) the Company's Form 8-K, date of event reported: June 11, 1997, as amended by the Company's Form 8-K/A, dated June 25, 1997.

3.10 Documents, Information and Access. The Subscriber's decision to purchase the Securities is not based on any promotional, marketing or sales materials, and the Subscriber and its representatives have been afforded, prior to purchase thereof, the opportunity to ask questions of, and to receive answers from, the Company and its management, and has had access to all documents and information which Subscriber deems material to an investment decision with respect to the purchase of Securities hereunder.

3.11 No Registration, Review or Approval. The Subscriber acknowledges and understands that the private offering and sale of Securities pursuant to this Agreement has not been reviewed or approved by the SEC or by any state securities commission, authority or agency, and is not registered under the Securities Laws. The Subscriber acknowledges, understands and agrees that the Shares are being exchanged hereunder pursuant to (i) an exchange offer exemption under Section 3(a)(9) of the Securities Act and (ii) (x) a private placement exemption to the registration provisions of the Securities Act pursuant to Section 3(b) and/or Section 4(2) of such Securities Act and/or Regulation D promulgated under the Securities Act) and (y) a similar exemption to the registration provisions of applicable state securities laws.

3.12 Transfer Restrictions. That Subscriber will not transfer any Securities purchased under this Agreement or any Conversion Shares or Warrant Shares purchased under this Agreement unless such Series 7 Preferred, Conversion Shares, or Warrant Shares, whichever is applicable, are registered under the Securities Laws, or unless an exemption is available under such Securities Laws, and the Company may, if it chooses, where an exemption from registration is claimed by such Subscriber, condition any transfer of Securities, Conversion Shares or Warrant Shares out of the Subscriber's name on an opinion of the Company's counsel, to the effect that the proposed transfer is being effected in accordance with, and does not violate, an applicable exemption from registration under the Securities Laws, or an opinion of counsel to the Subscriber, which opinion is satisfactory to the Company, to the effect that registration under the Securities Act is not required in connection with such



sale or transfer and the reasons therefor.

3.13 No Short Sale. The Subscriber expressly agrees that until such time that it has sold all of the Securities and/or all of the Conversion Shares and Warrant Shares that it shall not, directly or indirectly, through an affiliate (as that term is defined under Rule 405 promulgated under the Securities Act) or by, with or through an unrelated third party or entity, whether or not pursuant to a written or oral understanding, agreement, arrangement, scheme, or artifice of nature whatsoever, engage in the short selling of the Company's Common Stock or any other equity securities of the Company, whether now existing or hereafter issued, or engage in any other activity of any nature whatsoever that has the same effect as a short sale, or is a de facto or de jure short sale, of the Company's Common Stock or any other equity security of the Company, whether now existing or hereafter issued, including, but not limited to, the sale of any rights pursuant to any understanding, agreement, arrangement, scheme or artifice of any nature whatsoever, whether oral or in writing, relative to the Company's Common Stock or any other equity securities of the Company whether now existing or hereafter created. The Subscriber agrees that it will not engage, and will cause its affiliates not to engage, in any activity designed to reduce the price of the Company's Common Stock, as quoted on the Boston Stock Exchange or the NASDAQ, in connection with the Subscriber's conversion of any of the Series 7 Preferred. The Subscriber agrees to refrain, and cause its affiliates to refrain, from engaging in, or inducing others to engage in, any activity relating to the Company or Common Stock of the Company that is proscribed under Regulation M promulgated under the Exchange Act.

3.14 Reliance. The Subscriber understands and acknowledges that the Company is relying upon all of the representations, warranties, covenants, understandings, acknowledgements and agreements contained in this Agreement in determining whether to accept this subscription and to sell and issue the Securities to the Subscriber.

3.15 Accuracy or Representations and Warranties. All of the representations, warranties, understandings and acknowledgments that Subscriber has made herein are true and correct in all material respects as of the date of execution hereof. The Subscriber will perform and comply fully in all material respects with all covenants and agreements set forth herein, and the Subscriber covenants and agrees that until the acceptance of this Agreement by the Company, the Subscriber shall inform the Company immediately in writing of any changes in any of the representations or warranties provided or contained herein.

3.16 Indemnity. The Subscriber hereby agrees to indemnify and hold harmless the Company, and the Company's successors and assigns, from, against and in all respects of any demands, claims, actions or causes of action, assessments, liabilities, losses, costs, damages, penalties, charges, fines or expenses (including, without limitation, interest, penalties, and attorney and

accountants' fees, disbursements and expenses), arising out of or relating to any breach by Subscriber of any representations, warranty, covenant or agreement made by Subscriber in this Agreement. Such right to indemnification shall be in addition to any and all other rights of the Company under this Agreement or otherwise, at law or in equity.

3.17 Survival. The Subscriber expressly acknowledges and agrees that all of its representations, warranties, agreements and covenants set forth in this Agreement shall be of the essence hereof and shall survive the execution, delivery and Closing of this Agreement, the sale and purchase of the Securities, the conversion of the Series 7 Preferred, exercise of the Warrants, and the sale of the Conversion Shares and the Warrant Shares.

4. Representations, Warranties and Covenants of the Company. In order to induce Subscriber to enter into this Agreement and to exchange the Series 5 Preferred for the Securities, the Company hereby represents, warrants and covenants to Subscriber as follows:

4.1 Organization, Authority, Qualification. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware. The Company has full corporate power and authority to own and operate its properties and assets and to conduct and carry on its business as it is now being conducted and operated.

4.2 Authorization. The Company has full power and authority to execute and deliver this Agreement and to perform its obligations under and consummate the transactions contemplated by this Agreement. Upon the execution of this Agreement by the Company and delivery of the Securities, this Agreement shall have been duly and validly executed and delivered by the Company and shall constitute the legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms.

4.3 Ownership of, and Title to, Securities. The Securities to be purchased by the Subscriber are, and all Conversion Shares and Warrant Shares, when issued, will be, duly authorized, validly issued, fully paid and nonassessable shares of the capital stock of the Company, free of personal liability. Upon consummation of the purchase of the Securities (and upon the exercise of the Warrants and conversion of the Series 7 Preferred, in whole or in part) pursuant to this Agreement, the Subscriber will own and acquire title to the Securities (and the Warrant Shares and the Conversion Shares, as the case may be) free and clear of any and all proxies, voting trusts, pledges, options, restrictions, or other legal or equitable encumbrance of any nature whatsoever (other than the restrictions on transfer due to Securities Laws or as otherwise provided for in this Agreement or the Certificate of Designation).

4.4 Exemption from Registration. The offer and exchange of Securities to the Subscriber in accordance with the terms and provisions of this Agreement is being effected in accordance with the Securities Act, pursuant to an

exchange offer exemption to the registration provision of the Securities Act pursuant to Section 3(a)(9) thereunder and to a private placement exemption to the registration provisions of the Act pursuant to Section 3(b) and/or 4(2) of such Act and/or Regulation D promulgated under the Securities Act, based on the representations, warranties and covenants made by the Subscriber contained in this Agreement.

5. Registration Rights. In order to induce the Subscriber to enter into this Agreement and purchase the Securities, the Company hereby covenants and agrees to grant to the Subscriber the rights set forth in this Section 5 with respect to the registration of the Warrant Shares and the Conversion Shares.

5.1 Registration. Subject to the terms of Section 5 hereof, the Company agrees that by October 27, 1997, it shall prepare and file with the SEC, a registration statement on Form S-3 or equivalent form (the "Registration Statement") and such other documents, including a prospectus, as may be necessary in the opinion of counsel for the Company in order to comply with the provisions of the Securities Act, so as to permit a public offering and sale by the Subscriber of up to 200,000 shares of Common Stock issuable upon conversion of the Series 7 Preferred, plus up to 36,000 shares of Common Stock, if any, issuable as payment of dividends on the Series 7 Preferred Stock pursuant to the terms of the Series 7 Preferred, and 35,000 shares of Common Stock issuable upon exercise of the Warrants. The Company shall use its reasonable efforts to cause such Registration Statement to become effective at the earliest possible date after filing. In connection with the offering of such Common Stock registered pursuant to this Section 5, the Company shall take such reasonable actions as it deems necessary to qualify the Common Stock issuable upon conversion of the Series 7 Preferred, the Common Stock issuable as payment of dividends on the Series 7 Preferred, and the Common Stock issuable upon exercise of the Warrant, covered by such Registration Statement under such "blue sky" or other state securities laws for offer and sale as shall be reasonably necessary to permit the public offering and sale of such shares of Common Stock covered by such Registration Statement; provided, however, that the Company shall not be required (a) to qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this subparagraph, (b) to subject itself to taxation in any such jurisdiction, or (c) to consent to general service of process in any such jurisdiction. It is expressly agreed that in no event are any registration rights being granted to the Series 7 Preferred itself, but only with respect to up to 200,000 shares of the underlying Conversion Shares issuable upon exercise of the Series 7 Preferred, up to 36,000 shares of Common Stock that the Company may issue in payment of dividends on the Series 7 Preferred, and up to 35,000 shares of the Warrant Shares issuable upon the exercise of the Warrants.

5.2 Current Registration Statement. Once effective, the Company shall use its reasonable efforts to cause such Registration Statement filed hereunder to remain current and effective for a period of two (2) years or until the Conversion Shares covered by such Registration Statement

are sold by the Subscriber, whichever is sooner. The Subscriber shall promptly provide all such information and materials and take all such action as may be required in order to permit the Company to comply with all applicable requirements of the SEC and to obtain any desired acceleration of the effective date of such registration statement.

5.3 Other Provisions. In connection with the offering of any Conversion Shares and/or Warrant Shares registered pursuant to this Section 5, the Company shall furnish to the Subscriber such number of copies of any final prospectus as it may reasonably request in order to effect the offering and sale of the Conversion Shares and/or Warrant Shares to be offered and sold under such Registration Statement. In connection with any offering of Conversion Shares and/or Warrant Shares registered pursuant to this Section 5, the Company shall (a) furnish to the underwriters (if any), at the Company's expense, unlegended certificates representing ownership of the Conversion Shares and/or Warrant Shares sold under such Registration Statement in such denominations as requested and (b) instruct any transfer agent and registrar of the Conversion Shares and/or Warrant Shares sold under such Registration Statement to release immediately any stop transfer order, and to remove any restrictive legend, with respect to such Conversion Shares and/or Warrant Shares included in any registration becoming effective pursuant to this Agreement upon the sale of such shares by the Subscriber.

5.4 Costs. Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the Registration Statement relating to the Conversion Shares and the Warrant Shares under this Section 5, including filing fees, fees, costs and disbursements of any counsel, accountants and other consultants representing the Company in connection therewith. Notwithstanding anything set forth herein to the contrary, Subscriber shall be responsible for and pay any and all underwriting discounts and commissions in connection with the sale of the Conversion Shares and/or Warrant Shares pursuant hereto or the Registration Statement and all fees of its legal counsel and other advisors retained in connection with reviewing such Registration Statement.

5.5 Successors. The Company will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business, properties, stock or assets of the Company, to expressly assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform it if no such succession had taken place.

## 6. Indemnification.

6.1 By the Company. Subject to the terms of this Section 6, the Company will indemnify and hold harmless the Subscriber, its directors and officers, and any underwriter (as defined in the Securities Act) for the

Subscriber and each person, if any, who controls the Subscriber or such underwriter within the meaning of the Act, from and against, and will reimburse the Subscriber and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement filed with the SEC pursuant to Section 5, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Subscriber, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

6.2 By the Subscriber. Subject to the terms of this Section 6, the Subscriber will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expense to which the Company or any controlling person and/or any underwriter may become subject under the Securities Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such Registration Statement filed with the SEC pursuant to Section 5, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on behalf of, the Subscriber specifically for use in the preparation thereof.

6.3 Procedure. Promptly after receipt by an indemnified party pursuant to the provisions of Section 6.1 or 6.2 of notice of the commencement of any action involving the subject matter of the foregoing indemnity provisions, such indemnified party will, if a claim thereof is to be made against the indemnifying party pursuant to the provisions of Section 6.1 or 6.2, promptly notify the indemnifying party of the commencement thereof; but the omission to so notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party otherwise than

hereunder. In case such action is brought against any indemnified party and the indemnified party notifies the indemnifying party of the commencement thereof, the indemnifying party shall have the right to participate in, and, to the extent that it may wish, assume the defense thereof; or, if there is a conflict of interest which would prevent counsel for the indemnifying party from also representing the indemnified party, the indemnified parties have the right to select only one (1) separate counsel to participate in the defense of such action on behalf of all such indemnified parties. After notice from the indemnifying parties to such indemnified party of the indemnifying parties' election so to assume the defense thereof, the indemnifying parties will not be liable to such indemnified parties pursuant to the provisions of said Section 6.1 or 6.2 for any legal or other expense subsequently incurred by such indemnified parties in connection with the defense thereof, other than reasonable costs of investigation, unless (a) the indemnified parties shall have employed counsel in accordance with the provisions of the preceding sentence; (b) the indemnifying parties shall not have employed counsel satisfactory to the indemnified parties to represent the indemnified parties within a reasonable time after the notice of the commencement of the action or (c) the indemnifying party has authorized the employment of counsel for the indemnified party at the expense of the indemnifying parties.

7. Securities Legends and Notices. Subscriber represents and warrants that it has read, considered and understood the following legends, and agrees that such legends, substantially in the form and substance set forth below, shall be placed on all of the certificates representing the Series 7 Preferred and Warrants:

Series 7 Preferred Legends

NEITHER THIS PREFERRED STOCK NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE CONVERSION OF THIS PREFERRED STOCK HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS PREFERRED STOCK AND THE COMMON STOCK ISSUABLE UPON CONVERSION OF THIS PREFERRED STOCK MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR WITHOUT THE PRIOR WRITTEN CONSENT OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. AND AN OPINION OF PERMA-FIX ENVIRONMENTAL SERVICES, INC.'S COUNSEL, OR AN OPINION FROM COUNSEL FOR THE HOLDER HEREOF, WHICH OPINION IS SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON CONVERSION OF THIS PREFERRED STOCK ARE ALSO SUBJECT TO THE REGISTRATION RIGHTS SET FORTH IN THAT CERTAIN EXCHANGE AGREEMENT BY AND BETWEEN THE HOLDER HEREOF AND THE COMPANY, DATED SEPTEMBER 16, 1997, A COPY OF WHICH IS ON FILE AT THE COMPANY'S PRINCIPAL EXECUTIVE OFFICE.

## Warrant Legends

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT, HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR WITHOUT THE PRIOR WRITTEN CONSENT OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. AND AN OPINION OF PERMA-FIX ENVIRONMENTAL SERVICES, INC.'S COUNSEL, OR AN OPINION FROM COUNSEL FOR THE HOLDER HEREOF, WHICH OPINION IS SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES ISSUABLE UPON EXERCISE ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH IN THAT CERTAIN EXCHANGE AGREEMENT BETWEEN THE HOLDER HEREOF AND THE COMPANY, DATED SEPTEMBER 16, 1997, A COPY OF WHICH IS ON FILE AT THE COMPANY'S PRINCIPAL EXECUTIVE OFFICE.

### 8. Miscellaneous.

8.1 Assignment and Power of Attorney. For purposes of affecting the exchange of the Series 5 Preferred in accordance with the terms of this Agreement, the Subscriber does hereby assign all of its right, title and interest in and to the Series 5 Preferred to the Company and irrevocably makes, constitutes and appoints the Company as the true and lawful agents and attorneys-in-fact of the Subscriber ("Attorney-In-Fact") with full power and authority (except as provided below) to act hereunder individually, or through duly appointed successor attorneys-in-fact, in its sole discretion, all as hereinafter provided, in the name of, for and on behalf of the Subscriber, as fully as could the Subscriber if present and acting in person, with respect to all matters in connection with the transfer of the Series 5 Preferred.

8.2 Amendment; Waiver. Neither this Agreement nor the Warrants shall be changed, modified or amended in any respect except by the mutual written agreement of the parties hereto. Any provision of this Agreement or the Warrants may be waived in writing by the party which is entitled to the benefits thereof. No waiver of any provision of this Agreement or the Warrants shall be deemed to, or shall constitute a waiver of, any other provision hereof or thereof (whether or not similar), nor shall nay such waiver constitute a continuing waiver.

8.3 Binding Effect; Assignment. Neither this Agreement nor the Warrants, or any rights or obligations hereunder or thereunder, are assignable by the Subscriber.

8.4 Governing Law; Litigation Costs. This Agreement and its validity, construction and performance shall be governed

in all respects by the internal laws of the State of Delaware without giving effect to such State's conflicts of laws provisions. Each of the Company and the Subscriber expressly and irrevocably consent to the jurisdiction and venue of the federal courts located in Wilmington, Delaware. Each of the parties agrees that in the event either party brings an action to enforce any of the provisions of this Agreement or to recovery for an alleged breach of any of the provisions of this Agreement, each party shall be responsible for its own legal costs and disbursements during the pendency of any such action; provided, however, that after any such action has been reduced to a final, unappealable judgment, the prevailing party shall be entitled to recover from the other party all reasonable, documented attorneys' fees and disbursements and court costs from the other party.

8.5 Severability. Any term or provisions of this Agreement or the Warrants which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction only, be ineffective only to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or thereof affecting the validity or enforceability of such provision in any other jurisdiction.

8.6 Headings. The captions, headings and titles preceding the text of each or any Section, subsection or paragraph hereof are for convenience of reference only and shall not affect the construction, meaning or interpretation of this Agreement or the Warrants or any term or provisions hereof or thereof.

8.7 Counterparts. This Agreement may be executed in one or more original or facsimile counterparts, each of which shall be deemed an original and all of which shall be considered one and the same agreement, binding on all of the parties hereto, notwithstanding that all parties are not signatories to the same counterpart. Upon delivery of an executed counterpart by the undersigned Subscriber to the Company, which in turn is executed and delivered by the Company, this Agreement shall be binding as one original agreement between Subscriber and the Company.

8.8 Transfer Taxes. Each party hereto shall pay all such sales, transfer, use, gross receipts, registration and similar taxes arising out of, or in connection with, the transactions contemplated by this Agreement and the Warrants (collectively, the "Transfer Taxes") as are payable by such party under applicable law, and the Company shall pay the cost of any documentary stock transfer stamps, if any, to be affixed to the certificates representing the Shares and any Warrant Shares to be sold.

8.9 Entire Agreement. This Agreement, along with the Warrants and the Certificate of Designations, merges and supersedes any and all prior agreements, understandings, discussions, assurances, promises, representations or warranties among the parties with respect to the subject matter hereof, and contains the entire agreement among the parties with respect to the subject matter set forth



herein and therein.

8.10 Authority; Enforceability. The Subscriber is duly authorized to enter into this Agreement and to perform all of its obligations hereunder. Upon the execution and delivery of this Agreement by the Subscriber, this Agreement shall be enforceable against the Subscriber in accordance with its terms.

8.11 Notices. Except as otherwise specified herein to the contrary, all notices, requests, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand or by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U. S. Express Mail service, or by private overnight mail service (e.g., Federal Express). Any such notice shall be deemed to have been given (i) on the business day actually received if given by hand or by fax, (ii) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (iii) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt

requested, and all such notices shall be sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 8.11:

If to the Company: Dr. Louis F. Centofanti  
Perma-Fix Environmental  
Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653  
Fax No.: (352) 373-0040

with copies Irwin H. Steinhorn, Esquire  
simultaneously by: Conner & Winters  
like means to: One Leadership Square, Suite 1700  
211 North Robinson  
Oklahoma City, Oklahoma 73102  
Fax No.: (405) 232-2695

If to the Subscriber: The Infinity Fund, L.P.  
3 Piedmont Center, Suite 210  
Atlanta, Georgia 30305  
Attention: Mr. Barry Pearl  
Fax No.: (404) 231-1375

8.12 No Third Party Beneficiaries. This Agreement and the rights, benefits, privileges, interests, duties and obligations contained or referred to herein shall be solely for the benefit of the parties hereto and no third party shall have any rights or benefits hereunder as a third party beneficiary or otherwise hereunder.

8.13 Public Announcements. Neither Subscriber nor any officer, director, stockholder, employee, affiliate or affiliated person or entity of Subscriber, shall make or issue any press releases or otherwise make any public statements or make any disclosures to any third person or entity with respect to the transactions contemplated herein and will not make or issue any press releases or

otherwise make any public statements of any nature whatsoever with respect to the Company without the express prior approval of the Company.

IN WITNESS WHEREOF, the Company and the undersigned Subscriber have each duly executed this Agreement on the \_\_\_ day of October, 1997 but is considered to be effective as of the 16th day of September, 1997.

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By \_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

THE INFINITY FUND, L.P.

By \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

EXCHANGE AGREEMENT

exchanging

350 SHARES OF SERIES 5 CLASS E CONVERTIBLE PREFERRED STOCK,

PAR VALUE \$.001 PER SHARE

of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(a Delaware corporation)

for

350 SHARES OF SERIES 7 CLASS G CONVERTIBLE PREFERRED STOCK,

PAR VALUE \$.001 PER SHARE

and

35,000 WARRANTS, EACH WARRANT TO PURCHASE

ONE SHARE OF COMMON STOCK

of

PERMA-FIX ENVIRONMENTAL SERVICES, INC.  
(a Delaware corporation)

## EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement") is made and entered into as of the 1st day of October, 1997, by and between PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), and DR. LOUIS F. CENTOFANTI (the "Executive").

### W I T N E S S E T H:

WHEREAS, the Company believes that the services, knowledge, and contributions of the Executive to the Company are of critical importance to the Company; and

WHEREAS, the Company wishes to ensure that the Executive will continue to provide his services, knowledge, and contributions to the Company.

NOW, THEREFORE, in consideration of the mutual covenants, agreements, representations, and warranties set forth in this Agreement, the Company and the Executive agree as follows:

1. Term. Unless sooner terminated pursuant to the terms hereof, the term of this Agreement shall commence on the date hereof and terminate three (3) years from the date hereof, subject to extension by the mutual agreement of the parties (the "Term").

2. Position and Duties.

2.1 Position. The Company agrees to employ the Executive, and the Executive agrees to such employment, as President and Chief Executive Officer of the Company, or such other position as the Executive indicates in writing as being acceptable. The Executive's authority and duties, including, but not limited to hierarchical standing in the Company and reporting requirements within the Company, shall be substantially similar in all material respects with the most significant of those exercised by the Executive during the 90-day period immediately preceding the date of this Agreement.

2.2 Location. The Executive's duties and services shall be performed in Atlanta, Georgia or any other office or location satisfactory to the Executive.

2.3 Reasonable Attention. Excluding any periods of vacation and sick leave to which the Executive is entitled, the Executive agrees to faithfully perform the duties of his office, and to devote reasonable attention and time to the business and affairs of the Company, to the extent consistent with Section 2.1 above.

2.4 Other Activities. It shall not be a violation of this Agreement for the Executive to (i) serve on corporate, civic or charitable boards or committees, (ii) deliver lectures, fulfill speaking engagements or teach at educational institutes, (iii) manage personal investments, and (iv) participate in other activities, so long as such activities do not significantly interfere with the performance of the Executive's responsibilities as an employee of the Company in accordance with this Agreement. It is expressly understood and agreed that, to the extent that any such activities have been

conducted by the Executive prior to the date of this Agreement, the continued conduct of such activities, or the conduct of activities similar in nature and scope thereto subsequent to the date of this Agreement, shall not be deemed to interfere with the performance of the Executive's responsibilities to the Company.

### 3. Compensation and Benefits.

3.1 Annual Base Salary. The Company shall pay to the Executive an annual base salary of One Hundred Ten Thousand Dollars (\$110,000.00) per year ("Base Salary"), payable to the Executive in equal semi-monthly installments, less appropriate withholdings and deductions in accordance with the Company's customary payroll practices, subject to the adjustments listed below.

3.1.1 Cost of Living Adjustment. Commencing October 1, 1998, and annually on each October 1 during the Term of this Agreement, the Base Salary shall be increased so that the Base Salary as increased on October 1 bears the same ratio to the Base Salary of the Executive on the immediately preceding October 1 as the Official Consumer Price Index published by the Bureau of Labor Statistics, United States Department of Labor for Urban Wage Earners and Clerical Workers (1982-1984=100) for All Items, United States City Average ("CPI"), in effect on October 1 bears to the CPI on the immediately preceding October 1, except that no reductions in the Base Salary will be made pursuant to this Section 3.1.1.

3.1.2 Board Adjustment. Notwithstanding the language of Section 3.1.1 above, the Base Salary may be increased from time to time as determined by the Board of Directors of the Company (the "Board"), or the Compensation Committee of the Board, in an amount greater than provided for in Section 3.1.1 above.

3.2 Bonus. In addition to payment of the Base Salary, as adjusted, the Company may pay to the Executive an annual bonus to be determined by the Board or by the Compensation Committee of the Board on an annual basis.

3.3 Benefits. The Executive shall be entitled to participate in all employee benefit plans as are generally made available to other employees of the Company, subject to the terms and conditions of such benefits and plans and, as such benefits and plans may be changed by the Company from time to time. Such benefits in existence as of the date hereof are as follows: (i) group medical insurance coverage, (ii) group life insurance coverage and (iii) certain stock option plans.

3.4 Expenses. The Company shall pay directly, or reimburse the Executive, for any reasonable and necessary expenses and costs incurred by the Executive in connection with, or arising out of, the performance of the Executive's duties hereunder, provided that such expenses and costs shall be paid or reimbursed subject to such rules, regulations, and policies of the Company as established

from time to time by the Company. In the event the Executive incurs legal fees and expenses to enforce this Agreement, the Company shall reimburse the Executive such fees and expenses in full.

3.5 Fringe Benefits. During the term, the Executive shall be entitled to all fringe benefits including, but not limited to, vacation in accordance with the most favorable plans, practices, programs and policies of the Company during the 12-month period immediately preceding the date of this Agreement, or, if more favorable to the Executive, as in effect at any time thereafter with respect to other employees of the Company.

#### 4. Options.

4.1 Grant of Options and Option Prices. Subject to the terms and conditions of this Section 4, the Company hereby grants to the Executive as of the date of this Agreement, and according to the terms and conditions hereunder, the right, privilege and option to purchase 100,000 shares of the Company's common stock, par value \$.001 ("Common Stock"), at an option price of \$2.25 per share ("\$2.25 Option"), 100,000 shares of Common Stock at an option price of \$2.50 per share ("\$2.50 Option"), and 100,000 shares of Common Stock at an option price of \$3.00 per share ("\$3.00 Option"). Collectively, the \$2.25 Option, \$2.50 Option, and \$3.00 Option are referred to herein as the "Options."

#### 4.2 Time of Exercise of Options.

4.2.1 \$2.25 Option. Subject to the terms and conditions contained in this Section 4, the \$2.25 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date one year after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.2 \$2.50 Option. Subject to the terms and conditions contained in this Section 4, the \$2.50 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date two years after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.3 \$3.00 Option. Subject to the terms and conditions contained in this Section 4, the \$3.00 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date three years after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.4 Change of Control. Upon a change in control (as defined below) of the Company, the Options shall become immediately exercisable in full, notwithstanding the vesting schedule provided

herein. A "change in control" shall be deemed to have occurred upon any of the following events: (i) consummation of any of the following transactions: any merger, recapitalization, or other business combination of the Company pursuant to which the Company is the non-surviving corporation, unless the majority of the holders of Common Stock immediately prior to such transaction will own at least fifty-one percent (51%) of the total voting power of the then outstanding securities of the surviving corporation immediately after such transaction; (ii) a transaction in which any person, corporation or other entity (A) shall purchase any Common Stock pursuant to a tender offer or exchange offer, without the prior consent of the Board or (B) shall become after the date of this Agreement the "beneficial owner" (as such term is defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) of securities of the Company representing twenty-five percent (25%) or more of the total voting power of the then outstanding securities of the Company; or (iii) if, during any period of two (2) consecutive years, individuals who, at the beginning of such period, constituted the entire Board and any new director whose election by the Board, or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election by the stockholders was previously so approved, cease for any reason to constitute a majority thereof.

4.2.5 Acceleration of Vesting. The Board may, in its sole discretion, accelerate the vesting of all or any part of the Options and/or waive any limitations or restrictions, if any, for all or any part of the Options.

#### 4.3 Method of Exercise and Payment of Exercise Price.

4.3.1 Subject to the terms of this Section 4, the Options granted under this Agreement may be exercised by written notice directed to the Company at its principal place of business setting forth the exact number of shares under each of the \$2.25 Option, the \$2.50 Option and the \$3.00 Option, as applicable, that the Executive is purchasing, which may not exceed the number of shares that the Executive is eligible to purchase under this Agreement, and enclosing with such written notice a certified or cashier's check or cash, or the equivalent thereof acceptable to the Company, in payment of the full option price for the number of shares specified in such written notice and shall comply with such other reasonable requirements as the Board may establish. Subject to the terms and conditions of this

Agreement, the Company shall make delivery of such shares within a reasonable period of time after the giving of such notice.

4.3.2 The Executive understands that, on the exercise of the Options (or at the time a sale of the stock acquired by such exercise at a profit would no longer subject Executive to suit under Section 16(b) of the Securities Exchange Act of 1934, as amended), the excess of the fair market value of the Common Stock over its option price is taxable remuneration to him subject to federal income tax withholding by the Company. To facilitate withholding by the Company, if required, Executive hereby agrees that the exercisability of the Options is conditional on Executive agreeing to such arrangements and taking such actions as the Company determines are appropriate to insure that the amount required to be withheld will be available for payment in money by the Company as required withholding.

4.4 Termination of Options. The Options granted herein, to the extent not theretofore exercised, shall terminate forthwith upon the tenth anniversary of the date of this Agreement. Notwithstanding anything herein to the contrary, termination of this Agreement for any reason whatsoever shall not affect or terminate the Executive's rights under Sections 4 and 9.

#### 4.5 Restrictions.

4.5.1 The Options granted herein are not transferable by Executive, except by will or laws of descent and distribution..

4.5.2 Executive shall have no right as a stockholder with respect to any shares covered by the Options until the date of issuance of a stock certificate to him for such shares. No adjustment shall be made for dividends or other rights for which the record date is prior to the date such stock certificate is issued.

4.6 Stock Dividends, Reorganizations. If and to the extent that the number of issued shares of Common Stock shall be increased or reduced resulting from a subdivision or consolidation of shares or the payment of a stock dividend or any other increase or decrease in the number of such shares of Common Stock of the Company effected without receipt of consideration by the Company, the number of shares of Common Stock subject to the Options and the option price therefor shall be proportionately adjusted.

If the Company is reorganized or consolidated or merged with another corporation, in which the Company is the non-surviving corporation, the Executive shall be entitled to receive options covering shares of such reorganized, consolidated or merged company in the same proportion as optioned under this Agreement to Executive



prior to such reorganization, consolidation or merger, at any equivalent price, and subject to the same terms and conditions as contained herein. For purposes of the preceding sentence, the excess of the aggregate fair market value of the shares subject to the Options immediately after the reorganization, consolidation or merger over the aggregate option price of such shares shall not be more than the excess of the aggregate fair market value of all shares subject to the Options immediately before such reorganization, consolidation or merger over the aggregate option price of such shares, and the new option or assumption of the Options shall not give Executive additional benefits which he did not have under the Options.

The grant of the Options shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge or to consolidate or to dissolve, liquidate or sell, or transfer all or any part of its business or assets.

4.7 Compliance with Law and Approval of Regulatory Bodies. No shares will be issued, or, in the case of treasury shares transferred, upon exercise of the Options granted hereunder, except in compliance with all applicable Federal and State laws and regulations and in compliance with rules of stock exchanges on which the Company's shares of Common Stock may be listed.

4.8 Binding Effect and Amendments. This Agreement shall be binding upon the heirs, executors, administrators and successors of the parties hereto. This Agreement may not be amended except in writing signed by all of the parties hereto.

4.9 Other Restrictions and Legends.

4.9.1 Acquisition for Own Account; Registration. The Executive represents and warrants that if he acquires any of the shares under the Options he will acquire such shares for his own account and for the purpose of investment and not with a view to the sale or distribution thereof, except for sales pursuant to an effective registration statement under the Securities Act of 1933 (the "Act") or pursuant to an exemption from registration under the Act. The Executive understands that these shares have not and will not have been registered under the Act (the Company being under no obligation to effect such registration) and that such shares must be held indefinitely unless a subsequent disposition thereof is registered under the Act or is exempt from registration. The Executive further understands that the exemption from registration afforded by Rule 144 under the Act depends upon the satisfaction of various conditions and that, if applicable, Rule 144 affords the basis for sale of such shares only in limited amounts.

4.9.2 Disposition of Shares. The Executive represents, covenants, and agrees that he will not sell or otherwise dispose of the shares acquired under this Agreement in the absence of (a) an effective registration statement under the Act, (b) an opinion acceptable in

form and substance to the Company from Executive's counsel satisfactory to the Company, or an opinion of counsel to the Company, to the effect that no registration is required for such disposition, or (c) a "no-action" letter from the staff of the Securities & Exchange Commission ("SEC") to the effect that such staff will not recommend any action to the SEC if such a disposition takes place without registration.

4.9.3 Restrictive Legend. The certificates representing shares covered by this Agreement shall upon issuance thereof have stamped or imprinted thereon or affixed thereto a legend to the following effect:

THE REGISTERED HOLDER HEREOF HAS ACQUIRED THE SHARES REPRESENTED BY THIS CERTIFICATE FOR INVESTMENT AND NOT FOR RESALE IN CONNECTION WITH A DISTRIBUTION THEREOF. ACCORDINGLY, SUCH SHARES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AND MAY NOT BE SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF EXCEPT PURSUANT TO A CURRENTLY EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT OR OTHERWISE IN A TRANSACTION EXEMPT FROM THE PROVISIONS OF SECTION 5 OF SAID ACT."

5. No Offset; Legal Fees and Expenses. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any circumstances, including, without limitation, any set-off, counterclaim, recoupment, defense or other right which the Company may have against the Executive or others. In no event shall the Executive be obligated to seek other employment by way of mitigation of the amounts payable to the Executive under any of the provisions of this Agreement. The Company agrees to pay, to the full extent permitted by law, all legal fees and expenses which the Executive may reasonably incur as a result of any contest (regardless of the outcome thereof) by the Company or others of the validity or enforceability of, or liability under, any provision of this Agreement, plus in each case interest, compounded quarterly, on the total unpaid amount determined to be payable under this Agreement, such interest to be calculated at a rate equal to the prime commercial lending rate as published in the Wall Street Journal from time to time during the period of such nonpayment.

6. Confidential Information.

6.1 Confidentiality. During the term of this Agreement and for 12 months following termination of this Agreement, the Executive agrees to hold in a fiduciary capacity for the benefit of the Company all secret or confidential information, knowledge or data ("Confidential Information") relating to the Company or any of its affiliated companies, and their respective businesses, which shall have been obtained by the Executive during the Executive's employment by the Company or any of its affiliated companies and which shall not be public knowledge (other than by acts by the Executive or his representatives in violation of this Agreement). After termination of the Executive's employment with the Company, the Executive shall not, without the prior written consent of the Company, communicate or divulge

such Confidential Information to anyone other than the Company and those designated by it. In no event shall an asserted violation of the provisions of this Section 6 constitute a basis for deferring or withholding any amounts otherwise payable or issuable to the Executive under this Agreement.

6.2 Exceptions. Notwithstanding the provisions of Sections 6.1 and 6.3 hereof, the Executive shall not be held liable for disclosure of Confidential Information which (i) was generally available to the public at the time of its disclosure hereunder or becomes generally available to the public subsequent to the time of disclosure hereunder through means unrelated to the Executive's disclosure hereunder; or (ii) is reasonably necessary to perform the Executive's duties under this Agreement; or (iii) is disclosed with the written approval of the Company; or (iv) is required to be disclosed by law or by any governmental authority or entity; or (v) is disclosed as required by judicial or tribunal action after all available legal remedies to maintain the Confidential Information in secret shall have been exhausted; or (vi) a party can demonstrate was already in its possession prior to any disclosure thereof under this Agreement.

6.3 Equitable Relief. The Executive agrees that the remedy at law for any breach or threatened breach of any covenant contained in this Section 6 will be inadequate, and that the Company, in addition to such other remedies as may be available to it, in law or in equity, shall be entitled to injunctive relief without bond or other security.

## 7. Termination.

During the Term of this Agreement, the Executive's employment and the Agreement may be terminated only for one of the following reasons:

7.1 Death. Subject to Section 4.5.1, this Agreement and the Term shall terminate automatically upon the Executive's death.

### 7.2 Disability.

7.2.1 Definition. "Disability" of the Executive is defined, for the purposes of this Agreement, as physical or mental disability of the Executive which after a continuous period of at least 180 days is determined to be total and permanent by a physician selected by the Company and acceptable to the Executive or the Executive's legal representative.

7.2.2 Application. The Company may terminate the Agreement and the Term after establishing the Executive's Disability as set forth in Section 7.2.1, and by giving written notice of its intention to terminate the Executive's employment with the Company ("Disability Termination Notice"). In such a case, the Executive's employment with the Company and the Term shall terminate effective on the earlier of the otherwise scheduled expiration

of the Term pursuant to Section 1 or on the thirtieth (30th) day after receipt of the Disability Termination Notice, provided that the Executive has not resumed full-time performance of his duties under this Agreement.

7.3 Cause. The Company may terminate the Agreement and the Term for "Cause," which for the purposes of this Agreement is defined as (i) the ultimate conviction (after all appeals have been decided) of the Executive of a felony involving moral turpitude by a federal or state court of competent jurisdiction; or (ii) willful, gross misconduct or willful, gross neglect of duties by the Executive if such has resulted in material damage to the Company taken as a whole; provided that, (a) no action or failure to act by the Executive will constitute a reason for termination if the Executive believed in good faith that such action or failure to act was in the Company's best interests, and (b) failure of the Executive to perform his duties hereunder due to a Disability shall not be considered willful, gross misconduct or willful, gross neglect of duties for any purpose.

7.4 Good Reason. The Executive may terminate the Agreement for "Good Reason," which is defined for the purposes of this Agreement as (i) the assignment to the Executive of any duties inconsistent with the Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities that he has had during the 90 day period immediately preceding the date of this Agreement; or (ii) any other action by the Company which results in a diminishment in such position, authority, duties or responsibilities, other than an insubstantial and inadvertent action which is remedied by the Company after receipt of notice thereof by the Executive; or (iii) the Company's requiring the Executive to be based at any office or location other than that at which the Executive is based at the date of this Agreement, except for travel reasonably required in the performance of the Executive's responsibilities; or (iv) any purported termination by the Company of the Executive's employment with the Company otherwise than as permitted by this Agreement, it being understood that any such purported termination shall not be effective for any purpose of this Agreement.

## 8. Notice of Termination.

8.1 By Company. The Company shall not be deemed to have terminated this Agreement pursuant to the terms of Section 7 hereof, unless and until there shall have been delivered to the Executive a copy of a resolution ("Notice of Termination for Cause") duly adopted by the affirmative vote of not less than three-fourths of the entire Board of Directors of the Company at a meeting of the Board called and held for such purpose (after reasonable notice to the Executive and an opportunity for the Executive, together, with the Executive's counsel, to be heard before the Board), finding that in the good faith opinion of the Board, the Executive should be terminated pursuant to Section 7, and specifying the particulars thereof in detail.

8.2 By Executive. The Executive shall not be deemed to have terminated this Agreement pursuant to the terms of Section 7 hereof, unless and until there shall have been delivered by the Executive to the Company a "Notice of Termination for Good Reason" which shall state the specific termination provision relied upon, and specifying the particulars thereof in detail.

9. Company Obligations Upon Termination. If, during the Term of this Agreement, the Company shall terminate this Agreement other than for Cause, or the Executive shall terminate this Agreement for Good Reason, the Company shall pay to the Executive in a lump sum in cash on the date of such termination an amount equal to the amount which would have been paid to Executive under the Agreement if this Agreement had remained in effect through the Term using the Base Salary in effect at the time of delivery date of the Notice of Termination for Cause or the Notice of Termination for Good Reason, as applicable, and without making any adjustments to Base Salary pursuant to Section 3.1.1. Options shall become vested and fully exercisable for the full ten-year period.

10. Successors.

10.1 This Agreement shall inure to the benefit of and be enforceable by the Executive and the Executive's legal representatives.

10.2 This Agreement shall inure to the benefit of and be binding upon the Company and its successors.

11. Miscellaneous.

11.1 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without reference to principles of conflict of laws. The captions of this Agreement are not part of the provisions hereof and shall have no force or effect. This Agreement may not be amended or modified otherwise than by a written agreement executed by the parties hereto or their respective successors and legal representatives.

11.2 Notices. All notices and other communications hereunder shall be in writing and shall be given by hand delivery to the other party or by registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

If to the Executive:

Dr. Louis F. Centofanti  
315 Wilderlake Court  
Atlanta, Georgia 30328

If to the Company:

Perma-Fix Environmental Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653  
Attn: Chief Financial Officer

or to such other address as either party shall have

furnished to the other in writing in accordance herewith. Notice and communications shall be effective when actually received by the addressee.

11.3 Validity. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.

11.4 Entire Agreement. This Agreement constitutes the entire agreement among the parties with respect to the subject matter hereof and supersedes any and all prior or contemporaneous oral and prior written agreements and understandings. There are no oral promises, conditions, representations, understandings, interpretations or terms of any kind as conditions or inducements to the execution hereof or in effect among the parties. This Agreement may not be amended, and no provision hereof shall be waived, except by a writing signed by all the parties to this Agreement, or, in the case of a waiver, by the party waiving compliance therewith, which states that it is intended to amend or waive a provision of this Agreement. Any waiver of any rights or failure to act in a specific instance shall relate only to such instance and shall not be construed as an agreement to waive any rights or failure to act in any other instance, whether or not similar.

11.5 Modification. Should any provision of this Agreement be unenforceable or prohibited by an applicable law, this Agreement shall be considered divisible as to such provision which shall be inoperative, and the remainder of this Agreement shall be valid and binding as though such provision were not included herein.

11.6 Counterparts. This Agreement may be executed in two or more counterparts with the same effect as if the signatures to all such counterparts were upon the same instrument, and all such counterparts shall constitute but one instrument.

11.7 Headings. All headings in this Agreement are for convenience only and are not intended to affect the meaning of any provision hereof.

IN WITNESS WHEREOF, the Executive has hereunto set his hand and, pursuant to the authorization from its Board of Directors, the Company has caused these presents to be executed in its name on its behalf, all as of the day and year first above written.

"EXECUTIVE"

---

Dr. Louis F. Centofanti

"COMPANY"

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By: \_\_\_\_\_  
Title \_\_\_\_\_

ISTE:\N-P\PESI\10Q\997\EXHIB10.9

## EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement") is made and entered into as of the 1st day of October, 1997, by and between PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), and DR. LOUIS F. CENTOFANTI (the "Executive").

### W I T N E S S E T H:

WHEREAS, the Company believes that the services, knowledge, and contributions of the Executive to the Company are of critical importance to the Company; and

WHEREAS, the Company wishes to ensure that the Executive will continue to provide his services, knowledge, and contributions to the Company.

NOW, THEREFORE, in consideration of the mutual covenants, agreements, representations, and warranties set forth in this Agreement, the Company and the Executive agree as follows:

1. Term. Unless sooner terminated pursuant to the terms hereof, the term of this Agreement shall commence on the date hereof and terminate three (3) years from the date hereof, subject to extension by the mutual agreement of the parties (the "Term").

2. Position and Duties.

2.1 Position. The Company agrees to employ the Executive, and the Executive agrees to such employment, as President and Chief Executive Officer of the Company, or such other position as the Executive indicates in writing as being acceptable. The Executive's authority and duties, including, but not limited to hierarchical standing in the Company and reporting requirements within the Company, shall be substantially similar in all material respects with the most significant of those exercised by the Executive during the 90-day period immediately preceding the date of this Agreement.

2.2 Location. The Executive's duties and services shall be performed in Atlanta, Georgia or any other office or location satisfactory to the Executive.

2.3 Reasonable Attention. Excluding any periods of vacation and sick leave to which the Executive is entitled, the Executive agrees to faithfully perform the duties of his office, and to devote reasonable attention and time to the business and affairs of the Company, to the extent consistent with Section 2.1 above.

2.4 Other Activities. It shall not be a violation of this Agreement for the Executive to (i) serve on corporate, civic or charitable boards or committees, (ii) deliver lectures, fulfill speaking engagements or teach at educational institutes, (iii) manage personal investments, and (iv) participate in other activities, so long as such activities do not significantly interfere with the performance of the Executive's responsibilities as an employee of the Company in accordance with this Agreement. It is expressly understood and agreed that, to the extent that any such activities have been



conducted by the Executive prior to the date of this Agreement, the continued conduct of such activities, or the conduct of activities similar in nature and scope thereto subsequent to the date of this Agreement, shall not be deemed to interfere with the performance of the Executive's responsibilities to the Company.

### 3. Compensation and Benefits.

3.1 Annual Base Salary. The Company shall pay to the Executive an annual base salary of One Hundred Ten Thousand Dollars (\$110,000.00) per year ("Base Salary"), payable to the Executive in equal semi-monthly installments, less appropriate withholdings and deductions in accordance with the Company's customary payroll practices, subject to the adjustments listed below.

3.1.1 Cost of Living Adjustment. Commencing October 1, 1998, and annually on each October 1 during the Term of this Agreement, the Base Salary shall be increased so that the Base Salary as increased on October 1 bears the same ratio to the Base Salary of the Executive on the immediately preceding October 1 as the Official Consumer Price Index published by the Bureau of Labor Statistics, United States Department of Labor for Urban Wage Earners and Clerical Workers (1982-1984=100) for All Items, United States City Average ("CPI"), in effect on October 1 bears to the CPI on the immediately preceding October 1, except that no reductions in the Base Salary will be made pursuant to this Section 3.1.1.

3.1.2 Board Adjustment. Notwithstanding the language of Section 3.1.1 above, the Base Salary may be increased from time to time as determined by the Board of Directors of the Company (the "Board"), or the Compensation Committee of the Board, in an amount greater than provided for in Section 3.1.1 above.

3.2 Bonus. In addition to payment of the Base Salary, as adjusted, the Company may pay to the Executive an annual bonus to be determined by the Board or by the Compensation Committee of the Board on an annual basis.

3.3 Benefits. The Executive shall be entitled to participate in all employee benefit plans as are generally made available to other employees of the Company, subject to the terms and conditions of such benefits and plans and, as such benefits and plans may be changed by the Company from time to time. Such benefits in existence as of the date hereof are as follows: (i) group medical insurance coverage, (ii) group life insurance coverage and (iii) certain stock option plans.

3.4 Expenses. The Company shall pay directly, or reimburse the Executive, for any reasonable and necessary expenses and costs incurred by the Executive in connection with, or arising out of, the performance of the Executive's duties hereunder, provided that such expenses and costs shall be paid or reimbursed subject to such rules, regulations, and policies of the Company as established

from time to time by the Company. In the event the Executive incurs legal fees and expenses to enforce this Agreement, the Company shall reimburse the Executive such fees and expenses in full.

3.5 Fringe Benefits. During the term, the Executive shall be entitled to all fringe benefits including, but not limited to, vacation in accordance with the most favorable plans, practices, programs and policies of the Company during the 12-month period immediately preceding the date of this Agreement, or, if more favorable to the Executive, as in effect at any time thereafter with respect to other employees of the Company.

#### 4. Options.

4.1 Grant of Options and Option Prices. Subject to the terms and conditions of this Section 4, the Company hereby grants to the Executive as of the date of this Agreement, and according to the terms and conditions hereunder, the right, privilege and option to purchase 100,000 shares of the Company's common stock, par value \$.001 ("Common Stock"), at an option price of \$2.25 per share ("\$2.25 Option"), 100,000 shares of Common Stock at an option price of \$2.50 per share ("\$2.50 Option"), and 100,000 shares of Common Stock at an option price of \$3.00 per share ("\$3.00 Option"). Collectively, the \$2.25 Option, \$2.50 Option, and \$3.00 Option are referred to herein as the "Options."

#### 4.2 Time of Exercise of Options.

4.2.1 \$2.25 Option. Subject to the terms and conditions contained in this Section 4, the \$2.25 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date one year after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.2 \$2.50 Option. Subject to the terms and conditions contained in this Section 4, the \$2.50 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date two years after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.3 \$3.00 Option. Subject to the terms and conditions contained in this Section 4, the \$3.00 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date three years after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.4 Change of Control. Upon a change in control (as defined below) of the Company, the Options shall become immediately exercisable in full, notwithstanding the vesting schedule provided

herein. A "change in control" shall be deemed to have occurred upon any of the following events: (i) consummation of any of the following transactions: any merger, recapitalization, or other business combination of the Company pursuant to which the Company is the non-surviving corporation, unless the majority of the holders of Common Stock immediately prior to such transaction will own at least fifty-one percent (51%) of the total voting power of the then outstanding securities of the surviving corporation immediately after such transaction; (ii) a transaction in which any person, corporation or other entity (A) shall purchase any Common Stock pursuant to a tender offer or exchange offer, without the prior consent of the Board or (B) shall become after the date of this Agreement the "beneficial owner" (as such term is defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) of securities of the Company representing twenty-five percent (25%) or more of the total voting power of the then outstanding securities of the Company; or (iii) if, during any period of two (2) consecutive years, individuals who, at the beginning of such period, constituted the entire Board and any new director whose election by the Board, or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election by the stockholders was previously so approved, cease for any reason to constitute a majority thereof.

4.2.5 Acceleration of Vesting. The Board may, in its sole discretion, accelerate the vesting of all or any part of the Options and/or waive any limitations or restrictions, if any, for all or any part of the Options.

#### 4.3 Method of Exercise and Payment of Exercise Price.

4.3.1 Subject to the terms of this Section 4, the Options granted under this Agreement may be exercised by written notice directed to the Company at its principal place of business setting forth the exact number of shares under each of the \$2.25 Option, the \$2.50 Option and the \$3.00 Option, as applicable, that the Executive is purchasing, which may not exceed the number of shares that the Executive is eligible to purchase under this Agreement, and enclosing with such written notice a certified or cashier's check or cash, or the equivalent thereof acceptable to the Company, in payment of the full option price for the number of shares specified in such written notice and shall comply with such other reasonable requirements as the Board may establish. Subject to the terms and conditions of this

Agreement, the Company shall make delivery of such shares within a reasonable period of time after the giving of such notice.

4.3.2 The Executive understands that, on the exercise of the Options (or at the time a sale of the stock acquired by such exercise at a profit would no longer subject Executive to suit under Section 16(b) of the Securities Exchange Act of 1934, as amended), the excess of the fair market value of the Common Stock over its option price is taxable remuneration to him subject to federal income tax withholding by the Company. To facilitate withholding by the Company, if required, Executive hereby agrees that the exercisability of the Options is conditional on Executive agreeing to such arrangements and taking such actions as the Company determines are appropriate to insure that the amount required to be withheld will be available for payment in money by the Company as required withholding.

4.4 Termination of Options. The Options granted herein, to the extent not theretofore exercised, shall terminate forthwith upon the tenth anniversary of the date of this Agreement. Notwithstanding anything herein to the contrary, termination of this Agreement for any reason whatsoever shall not affect or terminate the Executive's rights under Sections 4 and 9.

4.5 Restrictions.

4.5.1 The Options granted herein are not transferable by Executive, except by will or laws of descent and distribution..

4.5.2 Executive shall have no right as a stockholder with respect to any shares covered by the Options until the date of issuance of a stock certificate to him for such shares. No adjustment shall be made for dividends or other rights for which the record date is prior to the date such stock certificate is issued.

4.6 Stock Dividends, Reorganizations. If and to the extent that the number of issued shares of Common Stock shall be increased or reduced resulting from a subdivision or consolidation of shares or the payment of a stock dividend or any other increase or decrease in the number of such shares of Common Stock of the Company effected without receipt of consideration by the Company, the number of shares of Common Stock subject to the Options and the option price therefor shall be proportionately adjusted.

If the Company is reorganized or consolidated or merged with another corporation, in which the Company is the non-surviving corporation, the Executive shall be entitled to receive options covering shares of such reorganized, consolidated or merged company in the same proportion as optioned under this Agreement to Executive

prior to such reorganization, consolidation or merger, at any equivalent price, and subject to the same terms and conditions as contained herein. For purposes of the preceding sentence, the excess of the aggregate fair market value of the shares subject to the Options immediately after the reorganization, consolidation or merger over the aggregate option price of such shares shall not be more than the excess of the aggregate fair market value of all shares subject to the Options immediately before such reorganization, consolidation or merger over the aggregate option price of such shares, and the new option or assumption of the Options shall not give Executive additional benefits which he did not have under the Options.

The grant of the Options shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge or to consolidate or to dissolve, liquidate or sell, or transfer all or any part of its business or assets.

4.7 Compliance with Law and Approval of Regulatory Bodies. No shares will be issued, or, in the case of treasury shares transferred, upon exercise of the Options granted hereunder, except in compliance with all applicable Federal and State laws and regulations and in compliance with rules of stock exchanges on which the Company's shares of Common Stock may be listed.

4.8 Binding Effect and Amendments. This Agreement shall be binding upon the heirs, executors, administrators and successors of the parties hereto. This Agreement may not be amended except in writing signed by all of the parties hereto.

4.9 Other Restrictions and Legends.

4.9.1 Acquisition for Own Account; Registration. The Executive represents and warrants that if he acquires any of the shares under the Options he will acquire such shares for his own account and for the purpose of investment and not with a view to the sale or distribution thereof, except for sales pursuant to an effective registration statement under the Securities Act of 1933 (the "Act") or pursuant to an exemption from registration under the Act. The Executive understands that these shares have not and will not have been registered under the Act (the Company being under no obligation to effect such registration) and that such shares must be held indefinitely unless a subsequent disposition thereof is registered under the Act or is exempt from registration. The Executive further understands that the exemption from registration afforded by Rule 144 under the Act depends upon the satisfaction of various conditions and that, if applicable, Rule 144 affords the basis for sale of such shares only in limited amounts.

4.9.2 Disposition of Shares. The Executive represents, covenants, and agrees that he will not sell or otherwise dispose of the shares acquired under this Agreement in the absence of (a) an effective registration statement under the Act, (b) an opinion acceptable in

form and substance to the Company from Executive's counsel satisfactory to the Company, or an opinion of counsel to the Company, to the effect that no registration is required for such disposition, or (c) a "no-action" letter from the staff of the Securities & Exchange Commission ("SEC") to the effect that such staff will not recommend any action to the SEC if such a disposition takes place without registration.

4.9.3 Restrictive Legend. The certificates representing shares covered by this Agreement shall upon issuance thereof have stamped or imprinted thereon or affixed thereto a legend to the following effect:

THE REGISTERED HOLDER HEREOF HAS ACQUIRED THE SHARES REPRESENTED BY THIS CERTIFICATE FOR INVESTMENT AND NOT FOR RESALE IN CONNECTION WITH A DISTRIBUTION THEREOF. ACCORDINGLY, SUCH SHARES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AND MAY NOT BE SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF EXCEPT PURSUANT TO A CURRENTLY EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT OR OTHERWISE IN A TRANSACTION EXEMPT FROM THE PROVISIONS OF SECTION 5 OF SAID ACT."

5. No Offset; Legal Fees and Expenses. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any circumstances, including, without limitation, any set-off, counterclaim, recoupment, defense or other right which the Company may have against the Executive or others. In no event shall the Executive be obligated to seek other employment by way of mitigation of the amounts payable to the Executive under any of the provisions of this Agreement. The Company agrees to pay, to the full extent permitted by law, all legal fees and expenses which the Executive may reasonably incur as a result of any contest (regardless of the outcome thereof) by the Company or others of the validity or enforceability of, or liability under, any provision of this Agreement, plus in each case interest, compounded quarterly, on the total unpaid amount determined to be payable under this Agreement, such interest to be calculated at a rate equal to the prime commercial lending rate as published in the Wall Street Journal from time to time during the period of such nonpayment.

6. Confidential Information.

6.1 Confidentiality. During the term of this Agreement and for 12 months following termination of this Agreement, the Executive agrees to hold in a fiduciary capacity for the benefit of the Company all secret or confidential information, knowledge or data ("Confidential Information") relating to the Company or any of its affiliated companies, and their respective businesses, which shall have been obtained by the Executive during the Executive's employment by the Company or any of its affiliated companies and which shall not be public knowledge (other than by acts by the Executive or his representatives in violation of this Agreement). After termination of the Executive's employment with the Company, the Executive shall not, without the prior written consent of the Company, communicate or divulge

such Confidential Information to anyone other than the Company and those designated by it. In no event shall an asserted violation of the provisions of this Section 6 constitute a basis for deferring or withholding any amounts otherwise payable or issuable to the Executive under this Agreement.

6.2 Exceptions. Notwithstanding the provisions of Sections 6.1 and 6.3 hereof, the Executive shall not be held liable for disclosure of Confidential Information which (i) was generally available to the public at the time of its disclosure hereunder or becomes generally available to the public subsequent to the time of disclosure hereunder through means unrelated to the Executive's disclosure hereunder; or (ii) is reasonably necessary to perform the Executive's duties under this Agreement; or (iii) is disclosed with the written approval of the Company; or (iv) is required to be disclosed by law or by any governmental authority or entity; or (v) is disclosed as required by judicial or tribunal action after all available legal remedies to maintain the Confidential Information in secret shall have been exhausted; or (vi) a party can demonstrate was already in its possession prior to any disclosure thereof under this Agreement.

6.3 Equitable Relief. The Executive agrees that the remedy at law for any breach or threatened breach of any covenant contained in this Section 6 will be inadequate, and that the Company, in addition to such other remedies as may be available to it, in law or in equity, shall be entitled to injunctive relief without bond or other security.

## 7. Termination.

During the Term of this Agreement, the Executive's employment and the Agreement may be terminated only for one of the following reasons:

7.1 Death. Subject to Section 4.5.1, this Agreement and the Term shall terminate automatically upon the Executive's death.

### 7.2 Disability.

7.2.1 Definition. "Disability" of the Executive is defined, for the purposes of this Agreement, as physical or mental disability of the Executive which after a continuous period of at least 180 days is determined to be total and permanent by a physician selected by the Company and acceptable to the Executive or the Executive's legal representative.

7.2.2 Application. The Company may terminate the Agreement and the Term after establishing the Executive's Disability as set forth in Section 7.2.1, and by giving written notice of its intention to terminate the Executive's employment with the Company ("Disability Termination Notice"). In such a case, the Executive's employment with the Company and the Term shall terminate effective on the earlier of the otherwise scheduled expiration

of the Term pursuant to Section 1 or on the thirtieth (30th) day after receipt of the Disability Termination Notice, provided that the Executive has not resumed full-time performance of his duties under this Agreement.

7.3 Cause. The Company may terminate the Agreement and the Term for "Cause," which for the purposes of this Agreement is defined as (i) the ultimate conviction (after all appeals have been decided) of the Executive of a felony involving moral turpitude by a federal or state court of competent jurisdiction; or (ii) willful, gross misconduct or willful, gross neglect of duties by the Executive if such has resulted in material damage to the Company taken as a whole; provided that, (a) no action or failure to act by the Executive will constitute a reason for termination if the Executive believed in good faith that such action or failure to act was in the Company's best interests, and (b) failure of the Executive to perform his duties hereunder due to a Disability shall not be considered willful, gross misconduct or willful, gross neglect of duties for any purpose.

7.4 Good Reason. The Executive may terminate the Agreement for "Good Reason," which is defined for the purposes of this Agreement as (i) the assignment to the Executive of any duties inconsistent with the Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities that he has had during the 90 day period immediately preceding the date of this Agreement; or (ii) any other action by the Company which results in a diminishment in such position, authority, duties or responsibilities, other than an insubstantial and inadvertent action which is remedied by the Company after receipt of notice thereof by the Executive; or (iii) the Company's requiring the Executive to be based at any office or location other than that at which the Executive is based at the date of this Agreement, except for travel reasonably required in the performance of the Executive's responsibilities; or (iv) any purported termination by the Company of the Executive's employment with the Company otherwise than as permitted by this Agreement, it being understood that any such purported termination shall not be effective for any purpose of this Agreement.

## 8. Notice of Termination.

8.1 By Company. The Company shall not be deemed to have terminated this Agreement pursuant to the terms of Section 7 hereof, unless and until there shall have been delivered to the Executive a copy of a resolution ("Notice of Termination for Cause") duly adopted by the affirmative vote of not less than three-fourths of the entire Board of Directors of the Company at a meeting of the Board called and held for such purpose (after reasonable notice to the Executive and an opportunity for the Executive, together, with the Executive's counsel, to be heard before the Board), finding that in the good faith opinion of the Board, the Executive should be terminated pursuant to Section 7, and specifying the particulars thereof in detail.



8.2 By Executive. The Executive shall not be deemed to have terminated this Agreement pursuant to the terms of Section 7 hereof, unless and until there shall have been delivered by the Executive to the Company a "Notice of Termination for Good Reason" which shall state the specific termination provision relied upon, and specifying the particulars thereof in detail.

9. Company Obligations Upon Termination. If, during the Term of this Agreement, the Company shall terminate this Agreement other than for Cause, or the Executive shall terminate this Agreement for Good Reason, the Company shall pay to the Executive in a lump sum in cash on the date of such termination an amount equal to the amount which would have been paid to Executive under the Agreement if this Agreement had remained in effect through the Term using the Base Salary in effect at the time of delivery date of the Notice of Termination for Cause or the Notice of Termination for Good Reason, as applicable, and without making any adjustments to Base Salary pursuant to Section 3.1.1. Options shall become vested and fully exercisable for the full ten-year period.

10. Successors.

10.1 This Agreement shall inure to the benefit of and be enforceable by the Executive and the Executive's legal representatives.

10.2 This Agreement shall inure to the benefit of and be binding upon the Company and its successors.

11. Miscellaneous.

11.1 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without reference to principles of conflict of laws. The captions of this Agreement are not part of the provisions hereof and shall have no force or effect. This Agreement may not be amended or modified otherwise than by a written agreement executed by the parties hereto or their respective successors and legal representatives.

11.2 Notices. All notices and other communications hereunder shall be in writing and shall be given by hand delivery to the other party or by registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

If to the Executive:

Dr. Louis F. Centofanti  
315 Wilderlake Court  
Atlanta, Georgia 30328

If to the Company:

Perma-Fix Environmental Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653  
Attn: Chief Financial Officer

or to such other address as either party shall have

furnished to the other in writing in accordance herewith. Notice and communications shall be effective when actually received by the addressee.

11.3 Validity. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.

11.4 Entire Agreement. This Agreement constitutes the entire agreement among the parties with respect to the subject matter hereof and supersedes any and all prior or contemporaneous oral and prior written agreements and understandings. There are no oral promises, conditions, representations, understandings, interpretations or terms of any kind as conditions or inducements to the execution hereof or in effect among the parties. This Agreement may not be amended, and no provision hereof shall be waived, except by a writing signed by all the parties to this Agreement, or, in the case of a waiver, by the party waiving compliance therewith, which states that it is intended to amend or waive a provision of this Agreement. Any waiver of any rights or failure to act in a specific instance shall relate only to such instance and shall not be construed as an agreement to waive any rights or failure to act in any other instance, whether or not similar.

11.5 Modification. Should any provision of this Agreement be unenforceable or prohibited by an applicable law, this Agreement shall be considered divisible as to such provision which shall be inoperative, and the remainder of this Agreement shall be valid and binding as though such provision were not included herein.

11.6 Counterparts. This Agreement may be executed in two or more counterparts with the same effect as if the signatures to all such counterparts were upon the same instrument, and all such counterparts shall constitute but one instrument.

11.7 Headings. All headings in this Agreement are for convenience only and are not intended to affect the meaning of any provision hereof.

IN WITNESS WHEREOF, the Executive has hereunto set his hand and, pursuant to the authorization from its Board of Directors, the Company has caused these presents to be executed in its name on its behalf, all as of the day and year first above written.

"EXECUTIVE"

---

Dr. Louis F. Centofanti

"COMPANY"

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By: \_\_\_\_\_  
Title \_\_\_\_\_

ISTE:\N-P\PESI\10Q\997\EXHIB10.9

## EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement") is made and entered into as of the 1st day of October, 1997, by and between PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), and DR. LOUIS F. CENTOFANTI (the "Executive").

### W I T N E S S E T H:

WHEREAS, the Company believes that the services, knowledge, and contributions of the Executive to the Company are of critical importance to the Company; and

WHEREAS, the Company wishes to ensure that the Executive will continue to provide his services, knowledge, and contributions to the Company.

NOW, THEREFORE, in consideration of the mutual covenants, agreements, representations, and warranties set forth in this Agreement, the Company and the Executive agree as follows:

1. Term. Unless sooner terminated pursuant to the terms hereof, the term of this Agreement shall commence on the date hereof and terminate three (3) years from the date hereof, subject to extension by the mutual agreement of the parties (the "Term").

2. Position and Duties.

2.1 Position. The Company agrees to employ the Executive, and the Executive agrees to such employment, as President and Chief Executive Officer of the Company, or such other position as the Executive indicates in writing as being acceptable. The Executive's authority and duties, including, but not limited to hierarchical standing in the Company and reporting requirements within the Company, shall be substantially similar in all material respects with the most significant of those exercised by the Executive during the 90-day period immediately preceding the date of this Agreement.

2.2 Location. The Executive's duties and services shall be performed in Atlanta, Georgia or any other office or location satisfactory to the Executive.

2.3 Reasonable Attention. Excluding any periods of vacation and sick leave to which the Executive is entitled, the Executive agrees to faithfully perform the duties of his office, and to devote reasonable attention and time to the business and affairs of the Company, to the extent consistent with Section 2.1 above.

2.4 Other Activities. It shall not be a violation of this Agreement for the Executive to (i) serve on corporate, civic or charitable boards or committees, (ii) deliver lectures, fulfill speaking engagements or teach at educational institutes, (iii) manage personal investments, and (iv) participate in other activities, so long as such activities do not significantly interfere with the performance of the Executive's responsibilities as an employee of the Company in accordance with this Agreement. It is expressly understood and agreed that, to the extent that any such activities have been

conducted by the Executive prior to the date of this Agreement, the continued conduct of such activities, or the conduct of activities similar in nature and scope thereto subsequent to the date of this Agreement, shall not be deemed to interfere with the performance of the Executive's responsibilities to the Company.

### 3. Compensation and Benefits.

3.1 Annual Base Salary. The Company shall pay to the Executive an annual base salary of One Hundred Ten Thousand Dollars (\$110,000.00) per year ("Base Salary"), payable to the Executive in equal semi-monthly installments, less appropriate withholdings and deductions in accordance with the Company's customary payroll practices, subject to the adjustments listed below.

3.1.1 Cost of Living Adjustment. Commencing October 1, 1998, and annually on each October 1 during the Term of this Agreement, the Base Salary shall be increased so that the Base Salary as increased on October 1 bears the same ratio to the Base Salary of the Executive on the immediately preceding October 1 as the Official Consumer Price Index published by the Bureau of Labor Statistics, United States Department of Labor for Urban Wage Earners and Clerical Workers (1982-1984=100) for All Items, United States City Average ("CPI"), in effect on October 1 bears to the CPI on the immediately preceding October 1, except that no reductions in the Base Salary will be made pursuant to this Section 3.1.1.

3.1.2 Board Adjustment. Notwithstanding the language of Section 3.1.1 above, the Base Salary may be increased from time to time as determined by the Board of Directors of the Company (the "Board"), or the Compensation Committee of the Board, in an amount greater than provided for in Section 3.1.1 above.

3.2 Bonus. In addition to payment of the Base Salary, as adjusted, the Company may pay to the Executive an annual bonus to be determined by the Board or by the Compensation Committee of the Board on an annual basis.

3.3 Benefits. The Executive shall be entitled to participate in all employee benefit plans as are generally made available to other employees of the Company, subject to the terms and conditions of such benefits and plans and, as such benefits and plans may be changed by the Company from time to time. Such benefits in existence as of the date hereof are as follows: (i) group medical insurance coverage, (ii) group life insurance coverage and (iii) certain stock option plans.

3.4 Expenses. The Company shall pay directly, or reimburse the Executive, for any reasonable and necessary expenses and costs incurred by the Executive in connection with, or arising out of, the performance of the Executive's duties hereunder, provided that such expenses and costs shall be paid or reimbursed subject to such rules, regulations, and policies of the Company as established

from time to time by the Company. In the event the Executive incurs legal fees and expenses to enforce this Agreement, the Company shall reimburse the Executive such fees and expenses in full.

3.5 Fringe Benefits. During the term, the Executive shall be entitled to all fringe benefits including, but not limited to, vacation in accordance with the most favorable plans, practices, programs and policies of the Company during the 12-month period immediately preceding the date of this Agreement, or, if more favorable to the Executive, as in effect at any time thereafter with respect to other employees of the Company.

#### 4. Options.

4.1 Grant of Options and Option Prices. Subject to the terms and conditions of this Section 4, the Company hereby grants to the Executive as of the date of this Agreement, and according to the terms and conditions hereunder, the right, privilege and option to purchase 100,000 shares of the Company's common stock, par value \$.001 ("Common Stock"), at an option price of \$2.25 per share ("\$2.25 Option"), 100,000 shares of Common Stock at an option price of \$2.50 per share ("\$2.50 Option"), and 100,000 shares of Common Stock at an option price of \$3.00 per share ("\$3.00 Option"). Collectively, the \$2.25 Option, \$2.50 Option, and \$3.00 Option are referred to herein as the "Options."

#### 4.2 Time of Exercise of Options.

4.2.1 \$2.25 Option. Subject to the terms and conditions contained in this Section 4, the \$2.25 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date one year after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.2 \$2.50 Option. Subject to the terms and conditions contained in this Section 4, the \$2.50 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date two years after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.3 \$3.00 Option. Subject to the terms and conditions contained in this Section 4, the \$3.00 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date three years after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.4 Change of Control. Upon a change in control (as defined below) of the Company, the Options shall become immediately exercisable in full, notwithstanding the vesting schedule provided

herein. A "change in control" shall be deemed to have occurred upon any of the following events: (i) consummation of any of the following transactions: any merger, recapitalization, or other business combination of the Company pursuant to which the Company is the non-surviving corporation, unless the majority of the holders of Common Stock immediately prior to such transaction will own at least fifty-one percent (51%) of the total voting power of the then outstanding securities of the surviving corporation immediately after such transaction; (ii) a transaction in which any person, corporation or other entity (A) shall purchase any Common Stock pursuant to a tender offer or exchange offer, without the prior consent of the Board or (B) shall become after the date of this Agreement the "beneficial owner" (as such term is defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) of securities of the Company representing twenty-five percent (25%) or more of the total voting power of the then outstanding securities of the Company; or (iii) if, during any period of two (2) consecutive years, individuals who, at the beginning of such period, constituted the entire Board and any new director whose election by the Board, or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election by the stockholders was previously so approved, cease for any reason to constitute a majority thereof.

4.2.5 Acceleration of Vesting. The Board may, in its sole discretion, accelerate the vesting of all or any part of the Options and/or waive any limitations or restrictions, if any, for all or any part of the Options.

#### 4.3 Method of Exercise and Payment of Exercise Price.

4.3.1 Subject to the terms of this Section 4, the Options granted under this Agreement may be exercised by written notice directed to the Company at its principal place of business setting forth the exact number of shares under each of the \$2.25 Option, the \$2.50 Option and the \$3.00 Option, as applicable, that the Executive is purchasing, which may not exceed the number of shares that the Executive is eligible to purchase under this Agreement, and enclosing with such written notice a certified or cashier's check or cash, or the equivalent thereof acceptable to the Company, in payment of the full option price for the number of shares specified in such written notice and shall comply with such other reasonable requirements as the Board may establish. Subject to the terms and conditions of this

Agreement, the Company shall make delivery of such shares within a reasonable period of time after the giving of such notice.

4.3.2 The Executive understands that, on the exercise of the Options (or at the time a sale of the stock acquired by such exercise at a profit would no longer subject Executive to suit under Section 16(b) of the Securities Exchange Act of 1934, as amended), the excess of the fair market value of the Common Stock over its option price is taxable remuneration to him subject to federal income tax withholding by the Company. To facilitate withholding by the Company, if required, Executive hereby agrees that the exercisability of the Options is conditional on Executive agreeing to such arrangements and taking such actions as the Company determines are appropriate to insure that the amount required to be withheld will be available for payment in money by the Company as required withholding.

4.4 Termination of Options. The Options granted herein, to the extent not theretofore exercised, shall terminate forthwith upon the tenth anniversary of the date of this Agreement. Notwithstanding anything herein to the contrary, termination of this Agreement for any reason whatsoever shall not affect or terminate the Executive's rights under Sections 4 and 9.

#### 4.5 Restrictions.

4.5.1 The Options granted herein are not transferable by Executive, except by will or laws of descent and distribution..

4.5.2 Executive shall have no right as a stockholder with respect to any shares covered by the Options until the date of issuance of a stock certificate to him for such shares. No adjustment shall be made for dividends or other rights for which the record date is prior to the date such stock certificate is issued.

4.6 Stock Dividends, Reorganizations. If and to the extent that the number of issued shares of Common Stock shall be increased or reduced resulting from a subdivision or consolidation of shares or the payment of a stock dividend or any other increase or decrease in the number of such shares of Common Stock of the Company effected without receipt of consideration by the Company, the number of shares of Common Stock subject to the Options and the option price therefor shall be proportionately adjusted.

If the Company is reorganized or consolidated or merged with another corporation, in which the Company is the non-surviving corporation, the Executive shall be entitled to receive options covering shares of such reorganized, consolidated or merged company in the same proportion as optioned under this Agreement to Executive



prior to such reorganization, consolidation or merger, at any equivalent price, and subject to the same terms and conditions as contained herein. For purposes of the preceding sentence, the excess of the aggregate fair market value of the shares subject to the Options immediately after the reorganization, consolidation or merger over the aggregate option price of such shares shall not be more than the excess of the aggregate fair market value of all shares subject to the Options immediately before such reorganization, consolidation or merger over the aggregate option price of such shares, and the new option or assumption of the Options shall not give Executive additional benefits which he did not have under the Options.

The grant of the Options shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge or to consolidate or to dissolve, liquidate or sell, or transfer all or any part of its business or assets.

4.7 Compliance with Law and Approval of Regulatory Bodies. No shares will be issued, or, in the case of treasury shares transferred, upon exercise of the Options granted hereunder, except in compliance with all applicable Federal and State laws and regulations and in compliance with rules of stock exchanges on which the Company's shares of Common Stock may be listed.

4.8 Binding Effect and Amendments. This Agreement shall be binding upon the heirs, executors, administrators and successors of the parties hereto. This Agreement may not be amended except in writing signed by all of the parties hereto.

4.9 Other Restrictions and Legends.

4.9.1 Acquisition for Own Account; Registration. The Executive represents and warrants that if he acquires any of the shares under the Options he will acquire such shares for his own account and for the purpose of investment and not with a view to the sale or distribution thereof, except for sales pursuant to an effective registration statement under the Securities Act of 1933 (the "Act") or pursuant to an exemption from registration under the Act. The Executive understands that these shares have not and will not have been registered under the Act (the Company being under no obligation to effect such registration) and that such shares must be held indefinitely unless a subsequent disposition thereof is registered under the Act or is exempt from registration. The Executive further understands that the exemption from registration afforded by Rule 144 under the Act depends upon the satisfaction of various conditions and that, if applicable, Rule 144 affords the basis for sale of such shares only in limited amounts.

4.9.2 Disposition of Shares. The Executive represents, covenants, and agrees that he will not sell or otherwise dispose of the shares acquired under this Agreement in the absence of (a) an effective registration statement under the Act, (b) an opinion acceptable in

form and substance to the Company from Executive's counsel satisfactory to the Company, or an opinion of counsel to the Company, to the effect that no registration is required for such disposition, or (c) a "no-action" letter from the staff of the Securities & Exchange Commission ("SEC") to the effect that such staff will not recommend any action to the SEC if such a disposition takes place without registration.

4.9.3 Restrictive Legend. The certificates representing shares covered by this Agreement shall upon issuance thereof have stamped or imprinted thereon or affixed thereto a legend to the following effect:

THE REGISTERED HOLDER HEREOF HAS ACQUIRED THE SHARES REPRESENTED BY THIS CERTIFICATE FOR INVESTMENT AND NOT FOR RESALE IN CONNECTION WITH A DISTRIBUTION THEREOF. ACCORDINGLY, SUCH SHARES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AND MAY NOT BE SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF EXCEPT PURSUANT TO A CURRENTLY EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT OR OTHERWISE IN A TRANSACTION EXEMPT FROM THE PROVISIONS OF SECTION 5 OF SAID ACT."

5. No Offset; Legal Fees and Expenses. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any circumstances, including, without limitation, any set-off, counterclaim, recoupment, defense or other right which the Company may have against the Executive or others. In no event shall the Executive be obligated to seek other employment by way of mitigation of the amounts payable to the Executive under any of the provisions of this Agreement. The Company agrees to pay, to the full extent permitted by law, all legal fees and expenses which the Executive may reasonably incur as a result of any contest (regardless of the outcome thereof) by the Company or others of the validity or enforceability of, or liability under, any provision of this Agreement, plus in each case interest, compounded quarterly, on the total unpaid amount determined to be payable under this Agreement, such interest to be calculated at a rate equal to the prime commercial lending rate as published in the Wall Street Journal from time to time during the period of such nonpayment.

6. Confidential Information.

6.1 Confidentiality. During the term of this Agreement and for 12 months following termination of this Agreement, the Executive agrees to hold in a fiduciary capacity for the benefit of the Company all secret or confidential information, knowledge or data ("Confidential Information") relating to the Company or any of its affiliated companies, and their respective businesses, which shall have been obtained by the Executive during the Executive's employment by the Company or any of its affiliated companies and which shall not be public knowledge (other than by acts by the Executive or his representatives in violation of this Agreement). After termination of the Executive's employment with the Company, the Executive shall not, without the prior written consent of the Company, communicate or divulge

such Confidential Information to anyone other than the Company and those designated by it. In no event shall an asserted violation of the provisions of this Section 6 constitute a basis for deferring or withholding any amounts otherwise payable or issuable to the Executive under this Agreement.

6.2 Exceptions. Notwithstanding the provisions of Sections 6.1 and 6.3 hereof, the Executive shall not be held liable for disclosure of Confidential Information which (i) was generally available to the public at the time of its disclosure hereunder or becomes generally available to the public subsequent to the time of disclosure hereunder through means unrelated to the Executive's disclosure hereunder; or (ii) is reasonably necessary to perform the Executive's duties under this Agreement; or (iii) is disclosed with the written approval of the Company; or (iv) is required to be disclosed by law or by any governmental authority or entity; or (v) is disclosed as required by judicial or tribunal action after all available legal remedies to maintain the Confidential Information in secret shall have been exhausted; or (vi) a party can demonstrate was already in its possession prior to any disclosure thereof under this Agreement.

6.3 Equitable Relief. The Executive agrees that the remedy at law for any breach or threatened breach of any covenant contained in this Section 6 will be inadequate, and that the Company, in addition to such other remedies as may be available to it, in law or in equity, shall be entitled to injunctive relief without bond or other security.

## 7. Termination.

During the Term of this Agreement, the Executive's employment and the Agreement may be terminated only for one of the following reasons:

7.1 Death. Subject to Section 4.5.1, this Agreement and the Term shall terminate automatically upon the Executive's death.

### 7.2 Disability.

7.2.1 Definition. "Disability" of the Executive is defined, for the purposes of this Agreement, as physical or mental disability of the Executive which after a continuous period of at least 180 days is determined to be total and permanent by a physician selected by the Company and acceptable to the Executive or the Executive's legal representative.

7.2.2 Application. The Company may terminate the Agreement and the Term after establishing the Executive's Disability as set forth in Section 7.2.1, and by giving written notice of its intention to terminate the Executive's employment with the Company ("Disability Termination Notice"). In such a case, the Executive's employment with the Company and the Term shall terminate effective on the earlier of the otherwise scheduled expiration

of the Term pursuant to Section 1 or on the thirtieth (30th) day after receipt of the Disability Termination Notice, provided that the Executive has not resumed full-time performance of his duties under this Agreement.

7.3 Cause. The Company may terminate the Agreement and the Term for "Cause," which for the purposes of this Agreement is defined as (i) the ultimate conviction (after all appeals have been decided) of the Executive of a felony involving moral turpitude by a federal or state court of competent jurisdiction; or (ii) willful, gross misconduct or willful, gross neglect of duties by the Executive if such has resulted in material damage to the Company taken as a whole; provided that, (a) no action or failure to act by the Executive will constitute a reason for termination if the Executive believed in good faith that such action or failure to act was in the Company's best interests, and (b) failure of the Executive to perform his duties hereunder due to a Disability shall not be considered willful, gross misconduct or willful, gross neglect of duties for any purpose.

7.4 Good Reason. The Executive may terminate the Agreement for "Good Reason," which is defined for the purposes of this Agreement as (i) the assignment to the Executive of any duties inconsistent with the Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities that he has had during the 90 day period immediately preceding the date of this Agreement; or (ii) any other action by the Company which results in a diminishment in such position, authority, duties or responsibilities, other than an insubstantial and inadvertent action which is remedied by the Company after receipt of notice thereof by the Executive; or (iii) the Company's requiring the Executive to be based at any office or location other than that at which the Executive is based at the date of this Agreement, except for travel reasonably required in the performance of the Executive's responsibilities; or (iv) any purported termination by the Company of the Executive's employment with the Company otherwise than as permitted by this Agreement, it being understood that any such purported termination shall not be effective for any purpose of this Agreement.

## 8. Notice of Termination.

8.1 By Company. The Company shall not be deemed to have terminated this Agreement pursuant to the terms of Section 7 hereof, unless and until there shall have been delivered to the Executive a copy of a resolution ("Notice of Termination for Cause") duly adopted by the affirmative vote of not less than three-fourths of the entire Board of Directors of the Company at a meeting of the Board called and held for such purpose (after reasonable notice to the Executive and an opportunity for the Executive, together, with the Executive's counsel, to be heard before the Board), finding that in the good faith opinion of the Board, the Executive should be terminated pursuant to Section 7, and specifying the particulars thereof in detail.

8.2 By Executive. The Executive shall not be deemed to have terminated this Agreement pursuant to the terms of Section 7 hereof, unless and until there shall have been delivered by the Executive to the Company a "Notice of Termination for Good Reason" which shall state the specific termination provision relied upon, and specifying the particulars thereof in detail.

9. Company Obligations Upon Termination. If, during the Term of this Agreement, the Company shall terminate this Agreement other than for Cause, or the Executive shall terminate this Agreement for Good Reason, the Company shall pay to the Executive in a lump sum in cash on the date of such termination an amount equal to the amount which would have been paid to Executive under the Agreement if this Agreement had remained in effect through the Term using the Base Salary in effect at the time of delivery date of the Notice of Termination for Cause or the Notice of Termination for Good Reason, as applicable, and without making any adjustments to Base Salary pursuant to Section 3.1.1. Options shall become vested and fully exercisable for the full ten-year period.

10. Successors.

10.1 This Agreement shall inure to the benefit of and be enforceable by the Executive and the Executive's legal representatives.

10.2 This Agreement shall inure to the benefit of and be binding upon the Company and its successors.

11. Miscellaneous.

11.1 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without reference to principles of conflict of laws. The captions of this Agreement are not part of the provisions hereof and shall have no force or effect. This Agreement may not be amended or modified otherwise than by a written agreement executed by the parties hereto or their respective successors and legal representatives.

11.2 Notices. All notices and other communications hereunder shall be in writing and shall be given by hand delivery to the other party or by registered or certified mail, return receipt requested, postage prepaid, addressed as follows:

If to the Executive:

Dr. Louis F. Centofanti  
315 Wilderlake Court  
Atlanta, Georgia 30328

If to the Company:

Perma-Fix Environmental Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653  
Attn: Chief Financial Officer

or to such other address as either party shall have

furnished to the other in writing in accordance herewith. Notice and communications shall be effective when actually received by the addressee.

11.3 Validity. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.

11.4 Entire Agreement. This Agreement constitutes the entire agreement among the parties with respect to the subject matter hereof and supersedes any and all prior or contemporaneous oral and prior written agreements and understandings. There are no oral promises, conditions, representations, understandings, interpretations or terms of any kind as conditions or inducements to the execution hereof or in effect among the parties. This Agreement may not be amended, and no provision hereof shall be waived, except by a writing signed by all the parties to this Agreement, or, in the case of a waiver, by the party waiving compliance therewith, which states that it is intended to amend or waive a provision of this Agreement. Any waiver of any rights or failure to act in a specific instance shall relate only to such instance and shall not be construed as an agreement to waive any rights or failure to act in any other instance, whether or not similar.

11.5 Modification. Should any provision of this Agreement be unenforceable or prohibited by an applicable law, this Agreement shall be considered divisible as to such provision which shall be inoperative, and the remainder of this Agreement shall be valid and binding as though such provision were not included herein.

11.6 Counterparts. This Agreement may be executed in two or more counterparts with the same effect as if the signatures to all such counterparts were upon the same instrument, and all such counterparts shall constitute but one instrument.

11.7 Headings. All headings in this Agreement are for convenience only and are not intended to affect the meaning of any provision hereof.

IN WITNESS WHEREOF, the Executive has hereunto set his hand and, pursuant to the authorization from its Board of Directors, the Company has caused these presents to be executed in its name on its behalf, all as of the day and year first above written.

"EXECUTIVE"

---

Dr. Louis F. Centofanti

"COMPANY"

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By: \_\_\_\_\_  
Title \_\_\_\_\_

ISTE:\N-P\PESI\10Q\997\EXHIB10.9

## EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement") is made and entered into as of the 1st day of October, 1997, by and between PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), and DR. LOUIS F. CENTOFANTI (the "Executive").

### W I T N E S S E T H:

WHEREAS, the Company believes that the services, knowledge, and contributions of the Executive to the Company are of critical importance to the Company; and

WHEREAS, the Company wishes to ensure that the Executive will continue to provide his services, knowledge, and contributions to the Company.

NOW, THEREFORE, in consideration of the mutual covenants, agreements, representations, and warranties set forth in this Agreement, the Company and the Executive agree as follows:

1. Term. Unless sooner terminated pursuant to the terms hereof, the term of this Agreement shall commence on the date hereof and terminate three (3) years from the date hereof, subject to extension by the mutual agreement of the parties (the "Term").

2. Position and Duties.

2.1 Position. The Company agrees to employ the Executive, and the Executive agrees to such employment, as President and Chief Executive Officer of the Company, or such other position as the Executive indicates in writing as being acceptable. The Executive's authority and duties, including, but not limited to hierarchical standing in the Company and reporting requirements within the Company, shall be substantially similar in all material respects with the most significant of those exercised by the Executive during the 90-day period immediately preceding the date of this Agreement.

2.2 Location. The Executive's duties and services shall be performed in Atlanta, Georgia or any other office or location satisfactory to the Executive.

2.3 Reasonable Attention. Excluding any periods of vacation and sick leave to which the Executive is entitled, the Executive agrees to faithfully perform the duties of his office, and to devote reasonable attention and time to the business and affairs of the Company, to the extent consistent with Section 2.1 above.

2.4 Other Activities. It shall not be a violation of this Agreement for the Executive to (i) serve on corporate, civic or charitable boards or committees, (ii) deliver lectures, fulfill speaking engagements or teach at educational institutes, (iii) manage personal investments, and (iv) participate in other activities, so long as such activities do not significantly interfere with the performance of the Executive's responsibilities as an employee of the Company in accordance with this Agreement. It is expressly understood and agreed that, to the extent that any such activities have been



conducted by the Executive prior to the date of this Agreement, the continued conduct of such activities, or the conduct of activities similar in nature and scope thereto subsequent to the date of this Agreement, shall not be deemed to interfere with the performance of the Executive's responsibilities to the Company.

### 3. Compensation and Benefits.

3.1 Annual Base Salary. The Company shall pay to the Executive an annual base salary of One Hundred Ten Thousand Dollars (\$110,000.00) per year ("Base Salary"), payable to the Executive in equal semi-monthly installments, less appropriate withholdings and deductions in accordance with the Company's customary payroll practices, subject to the adjustments listed below.

3.1.1 Cost of Living Adjustment. Commencing October 1, 1998, and annually on each October 1 during the Term of this Agreement, the Base Salary shall be increased so that the Base Salary as increased on October 1 bears the same ratio to the Base Salary of the Executive on the immediately preceding October 1 as the Official Consumer Price Index published by the Bureau of Labor Statistics, United States Department of Labor for Urban Wage Earners and Clerical Workers (1982-1984=100) for All Items, United States City Average ("CPI"), in effect on October 1 bears to the CPI on the immediately preceding October 1, except that no reductions in the Base Salary will be made pursuant to this Section 3.1.1.

3.1.2 Board Adjustment. Notwithstanding the language of Section 3.1.1 above, the Base Salary may be increased from time to time as determined by the Board of Directors of the Company (the "Board"), or the Compensation Committee of the Board, in an amount greater than provided for in Section 3.1.1 above.

3.2 Bonus. In addition to payment of the Base Salary, as adjusted, the Company may pay to the Executive an annual bonus to be determined by the Board or by the Compensation Committee of the Board on an annual basis.

3.3 Benefits. The Executive shall be entitled to participate in all employee benefit plans as are generally made available to other employees of the Company, subject to the terms and conditions of such benefits and plans and, as such benefits and plans may be changed by the Company from time to time. Such benefits in existence as of the date hereof are as follows: (i) group medical insurance coverage, (ii) group life insurance coverage and (iii) certain stock option plans.

3.4 Expenses. The Company shall pay directly, or reimburse the Executive, for any reasonable and necessary expenses and costs incurred by the Executive in connection with, or arising out of, the performance of the Executive's duties hereunder, provided that such expenses and costs shall be paid or reimbursed subject to such rules, regulations, and policies of the Company as established

from time to time by the Company. In the event the Executive incurs legal fees and expenses to enforce this Agreement, the Company shall reimburse the Executive such fees and expenses in full.

3.5 Fringe Benefits. During the term, the Executive shall be entitled to all fringe benefits including, but not limited to, vacation in accordance with the most favorable plans, practices, programs and policies of the Company during the 12-month period immediately preceding the date of this Agreement, or, if more favorable to the Executive, as in effect at any time thereafter with respect to other employees of the Company.

#### 4. Options.

4.1 Grant of Options and Option Prices. Subject to the terms and conditions of this Section 4, the Company hereby grants to the Executive as of the date of this Agreement, and according to the terms and conditions hereunder, the right, privilege and option to purchase 100,000 shares of the Company's common stock, par value \$.001 ("Common Stock"), at an option price of \$2.25 per share ("\$2.25 Option"), 100,000 shares of Common Stock at an option price of \$2.50 per share ("\$2.50 Option"), and 100,000 shares of Common Stock at an option price of \$3.00 per share ("\$3.00 Option"). Collectively, the \$2.25 Option, \$2.50 Option, and \$3.00 Option are referred to herein as the "Options."

#### 4.2 Time of Exercise of Options.

4.2.1 \$2.25 Option. Subject to the terms and conditions contained in this Section 4, the \$2.25 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date one year after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.2 \$2.50 Option. Subject to the terms and conditions contained in this Section 4, the \$2.50 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date two years after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.3 \$3.00 Option. Subject to the terms and conditions contained in this Section 4, the \$3.00 Option herein granted may be exercised by the Executive, in whole or in part, and from time to time, at any time after the date three years after the date of this Agreement until the expiration of the date ten years after the date of this Agreement.

4.2.4 Change of Control. Upon a change in control (as defined below) of the Company, the Options shall become immediately exercisable in full, notwithstanding the vesting schedule provided

herein. A "change in control" shall be deemed to have occurred upon any of the following events: (i) consummation of any of the following transactions: any merger, recapitalization, or other business combination of the Company pursuant to which the Company is the non-surviving corporation, unless the majority of the holders of Common Stock immediately prior to such transaction will own at least fifty-one percent (51%) of the total voting power of the then outstanding securities of the surviving corporation immediately after such transaction; (ii) a transaction in which any person, corporation or other entity (A) shall purchase any Common Stock pursuant to a tender offer or exchange offer, without the prior consent of the Board or (B) shall become after the date of this Agreement the "beneficial owner" (as such term is defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) of securities of the Company representing twenty-five percent (25%) or more of the total voting power of the then outstanding securities of the Company; or (iii) if, during any period of two (2) consecutive years, individuals who, at the beginning of such period, constituted the entire Board and any new director whose election by the Board, or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election by the stockholders was previously so approved, cease for any reason to constitute a majority thereof.

4.2.5 Acceleration of Vesting. The Board may, in its sole discretion, accelerate the vesting of all or any part of the Options and/or waive any limitations or restrictions, if any, for all or any part of the Options.

#### 4.3 Method of Exercise and Payment of Exercise Price.

4.3.1 Subject to the terms of this Section 4, the Options granted under this Agreement may be exercised by written notice directed to the Company at its principal place of business setting forth the exact number of shares under each of the \$2.25 Option, the \$2.50 Option and the \$3.00 Option, as applicable, that the Executive is purchasing, which may not exceed the number of shares that the Executive is eligible to purchase under this Agreement, and enclosing with such written notice a certified or cashier's check or cash, or the equivalent thereof acceptable to the Company, in payment of the full option price for the number of shares specified in such written notice and shall comply with such other reasonable requirements as the Board may establish. Subject to the terms and conditions of this

Agreement, the Company shall make delivery of such shares within a reasonable period of time after the giving of such notice.

4.3.2 The Executive understands that, on the exercise of the Options (or at the time a sale of the stock acquired by such exercise at a profit would no longer subject Executive to suit under Section 16(b) of the Securities Exchange Act of 1934, as amended), the excess of the fair market value of the Common Stock over its option price is taxable remuneration to him subject to federal income tax withholding by the Company. To facilitate withholding by the Company, if required, Executive hereby agrees that the exercisability of the Options is conditional on Executive agreeing to such arrangements and taking such actions as the Company determines are appropriate to insure that the amount required to be withheld will be available for payment in money by the Company as required withholding.

4.4 Termination of Options. The Options granted herein, to the extent not theretofore exercised, shall terminate forthwith upon the tenth anniversary of the date of this Agreement. Notwithstanding anything herein to the contrary, termination of this Agreement for any reason whatsoever shall not affect or terminate the Executive's rights under Sections 4 and 9.

4.5 Restrictions.

4.5.1 The Options granted herein are not transferable by Executive, except by will or laws of descent and distribution..

4.5.2 Executive shall have no right as a stockholder with respect to any shares covered by the Options until the date of issuance of a stock certificate to him for such shares. No adjustment shall be made for dividends or other rights for which the record date is prior to the date such stock certificate is issued.

4.6 Stock Dividends, Reorganizations. If and to the extent that the number of issued shares of Common Stock shall be increased or reduced resulting from a subdivision or consolidation of shares or the payment of a stock dividend or any other increase or decrease in the number of such shares of Common Stock of the Company effected without receipt of consideration by the Company, the number of shares of Common Stock subject to the Options and the option price therefor shall be proportionately adjusted.

If the Company is reorganized or consolidated or merged with another corporation, in which the Company is the non-surviving corporation, the Executive shall be entitled to receive options covering shares of such reorganized, consolidated or merged company in the same proportion as optioned under this Agreement to Executive

prior to such reorganization, consolidation or merger, at any equivalent price, and subject to the same terms and conditions as contained herein. For purposes of the preceding sentence, the excess of the aggregate fair market value of the shares subject to the Options immediately after the reorganization, consolidation or merger over the aggregate option price of such shares shall not be more than the excess of the aggregate fair market value of all shares subject to the Options immediately before such reorganization, consolidation or merger over the aggregate option price of such shares, and the new option or assumption of the Options shall not give Executive additional benefits which he did not have under the Options.

The grant of the Options shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge or to consolidate or to dissolve, liquidate or sell, or transfer all or any part of its business or assets.

4.7 Compliance with Law and Approval of Regulatory Bodies. No shares will be issued, or, in the case of treasury shares transferred, upon exercise of the Options granted hereunder, except in compliance with all applicable Federal and State laws and regulations and in compliance with rules of stock exchanges on which the Company's shares of Common Stock may be listed.

4.8 Binding Effect and Amendments. This Agreement shall be binding upon the heirs, executors, administrators and successors of the parties hereto. This Agreement may not be amended except in writing signed by all of the parties hereto.

4.9 Other Restrictions and Legends.

4.9.1 Acquisition for Own Account; Registration. The Executive represents and warrants that if he acquires any of the shares under the Options he will acquire such shares for his own account and for the purpose of investment and not with a view to the sale or distribution thereof, except for sales pursuant to an effective registration statement under the Securities Act of 1933 (the "Act") or pursuant to an exemption from registration under the Act. The Executive understands that these shares have not and will not have been registered under the Act (the Company being under no obligation to effect such registration) and that such shares must be held indefinitely unless a subsequent disposition thereof is registered under the Act or is exempt from registration. The Executive further understands that the exemption from registration afforded by Rule 144 under the Act depends upon the satisfaction of various conditions and that, if applicable, Rule 144 affords the basis for sale of such shares only in limited amounts.

4.9.2 Disposition of Shares. The Executive represents, covenants, and agrees that he will not sell or otherwise dispose of the shares acquired under this Agreement in the absence of (a) an effective registration statement under the Act, (b) an opinion acceptable in

form and substance to the Company from Executive's counsel satisfactory to the Company, or an opinion of counsel to the Company, to the effect that no registration is required for such disposition, or (c) a "no-action" letter from the staff of the Securities & Exchange Commission ("SEC") to the effect that such staff will not recommend any action to the SEC if such a disposition takes place without registration.

4.9.3 Restrictive Legend. The certificates representing shares covered by this Agreement shall upon issuance thereof have stamped or imprinted thereon or affixed thereto a legend to the following effect:

THE REGISTERED HOLDER HEREOF HAS ACQUIRED THE SHARES REPRESENTED BY THIS CERTIFICATE FOR INVESTMENT AND NOT FOR RESALE IN CONNECTION WITH A DISTRIBUTION THEREOF. ACCORDINGLY, SUCH SHARES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AND MAY NOT BE SOLD, TRANSFERRED OR OTHERWISE DISPOSED OF EXCEPT PURSUANT TO A CURRENTLY EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT OR OTHERWISE IN A TRANSACTION EXEMPT FROM THE PROVISIONS OF SECTION 5 OF SAID ACT."

5. No Offset; Legal Fees and Expenses. The Company's obligation to make the payments provided for in this Agreement and otherwise to perform its obligations hereunder shall not be affected by any circumstances, including, without limitation, any set-off, counterclaim, recoupment, defense or other right which the Company may have against the Executive or others. In no event shall the Executive be obligated to seek other employment by way of mitigation of the amounts payable to the Executive under any of the provisions of this Agreement. The Company agrees to pay, to the full extent permitted by law, all legal fees and expenses which the Executive may reasonably incur as a result of any contest (regardless of the outcome thereof) by the Company or others of the validity or enforceability of, or liability under, any provision of this Agreement, plus in each case interest, compounded quarterly, on the total unpaid amount determined to be payable under this Agreement, such interest to be calculated at a rate equal to the prime commercial lending rate as published in the Wall Street Journal from time to time during the period of such nonpayment.

6. Confidential Information.

6.1 Confidentiality. During the term of this Agreement and for 12 months following termination of this Agreement, the Executive agrees to hold in a fiduciary capacity for the benefit of the Company all secret or confidential information, knowledge or data ("Confidential Information") relating to the Company or any of its affiliated companies, and their respective businesses, which shall have been obtained by the Executive during the Executive's employment by the Company or any of its affiliated companies and which shall not be public knowledge (other than by acts by the Executive or his representatives in violation of this Agreement). After termination of the Executive's employment with the Company, the Executive shall not, without the prior written consent of the Company, communicate or divulge

such Confidential Information to anyone other than the Company and those designated by it. In no event shall an asserted violation of the provisions of this Section 6 constitute a basis for deferring or withholding any amounts otherwise payable or issuable to the Executive under this Agreement.

6.2 Exceptions. Notwithstanding the provisions of Sections 6.1 and 6.3 hereof, the Executive shall not be held liable for disclosure of Confidential Information which (i) was generally available to the public at the time of its disclosure hereunder or becomes generally available to the public subsequent to the time of disclosure hereunder through means unrelated to the Executive's disclosure hereunder; or (ii) is reasonably necessary to perform the Executive's duties under this Agreement; or (iii) is disclosed with the written approval of the Company; or (iv) is required to be disclosed by law or by any governmental authority or entity; or (v) is disclosed as required by judicial or tribunal action after all available legal remedies to maintain the Confidential Information in secret shall have been exhausted; or (vi) a party can demonstrate was already in its possession prior to any disclosure thereof under this Agreement.

6.3 Equitable Relief. The Executive agrees that the remedy at law for any breach or threatened breach of any covenant contained in this Section 6 will be inadequate, and that the Company, in addition to such other remedies as may be available to it, in law or in equity, shall be entitled to injunctive relief without bond or other security.

## 7. Termination.

During the Term of this Agreement, the Executive's employment and the Agreement may be terminated only for one of the following reasons:

7.1 Death. Subject to Section 4.5.1, this Agreement and the Term shall terminate automatically upon the Executive's death.

### 7.2 Disability.

7.2.1 Definition. "Disability" of the Executive is defined, for the purposes of this Agreement, as physical or mental disability of the Executive which after a continuous period of at least 180 days is determined to be total and permanent by a physician selected by the Company and acceptable to the Executive or the Executive's legal representative.

7.2.2 Application. The Company may terminate the Agreement and the Term after establishing the Executive's Disability as set forth in Section 7.2.1, and by giving written notice of its intention to terminate the Executive's employment with the Company ("Disability Termination Notice"). In such a case, the Executive's employment with the Company and the Term shall terminate effective on the earlier of the otherwise scheduled expiration

of the Term pursuant to Section 1 or on the thirtieth (30th) day after receipt of the Disability Termination Notice, provided that the Executive has not resumed full-time performance of his duties under this Agreement.

7.3 Cause. The Company may terminate the Agreement and the Term for "Cause," which for the purposes of this Agreement is defined as (i) the ultimate conviction (after all appeals have been decided) of the Executive of a felony involving moral turpitude by a federal or state court of competent jurisdiction; or (ii) willful, gross misconduct or willful, gross neglect of duties by the Executive if such has resulted in material damage to the Company taken as a whole; provided that, (a) no action or failure to act by the Executive will constitute a reason for termination if the Executive believed in good faith that such action or failure to act was in the Company's best interests, and (b) failure of the Executive to perform his duties hereunder due to a Disability shall not be considered willful, gross misconduct or willful, gross neglect of duties for any purpose.

7.4 Good Reason. The Executive may terminate the Agreement for "Good Reason," which is defined for the purposes of this Agreement as (i) the assignment to the Executive of any duties inconsistent with the Executive's position (including status, offices, titles and reporting requirements), authority, duties or responsibilities that he has had during the 90 day period immediately preceding the date of this Agreement; or (ii) any other action by the Company which results in a diminishment in such position, authority, duties or responsibilities, other than an insubstantial and inadvertent action which is remedied by the Company after receipt of notice thereof by the Executive; or (iii) the Company's requiring the Executive to be based at any office or location other than that at which the Executive is based at the date of this Agreement, except for travel reasonably required in the performance of the Executive's responsibilities; or (iv) any purported termination by the Company of the Executive's employment with the Company otherwise than as permitted by this Agreement, it being understood that any such purported termination shall not be effective for any purpose of this Agreement.

## 8. Notice of Termination.

8.1 By Company. The Company shall not be deemed to have terminated this Agreement pursuant to the terms of Section 7 hereof, unless and until there shall have been delivered to the Executive a copy of a resolution ("Notice of Termination for Cause") duly adopted by the affirmative vote of not less than three-fourths of the entire Board of Directors of the Company at a meeting of the Board called and held for such purpose (after reasonable notice to the Executive and an opportunity for the Executive, together, with the Executive's counsel, to be heard before the Board), finding that in the good faith opinion of the Board, the Executive should be terminated pursuant to Section 7, and specifying the particulars thereof in detail.



8.2 By Executive. The Executive shall not be deemed to have terminated this Agreement pursuant to the terms of Section 7 hereof, unless and until there shall have been delivered by the Executive to the Company a "Notice of Termination for Good Reason" which shall state the specific termination provision relied upon, and specifying the particulars thereof in detail.

9. Company Obligations Upon Termination. If, during the Term of this Agreement, the Company shall terminate this Agreement other than for Cause, or the Executive shall terminate this Agreement for Good Reason, the Company shall pay to the Executive in a lump sum in cash on the date of such termination an amount equal to the amount which would have been paid to Executive under the Agreement if this Agreement had remained in effect through the Term using the Base Salary in effect at the time of delivery date of the Notice of Termination for Cause or the Notice of Termination for Good Reason, as applicable, and without making any adjustments to Base Salary pursuant to Section 3.1.1. Options shall become vested and fully exercisable for the full ten-year period.

10. Successors.

10.1 This Agreement shall inure to the benefit of and be enforceable by the Executive and the Executive's legal representatives.

10.2 This Agreement shall inure to the benefit of and be binding upon the Company and its successors.

11. Miscellaneous.

11.1 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without reference to principles of conflict of laws. The captions of this Agreement are not part of the provisions hereof and shall have no force or effect. This Agreement may not be amended or modified otherwise than by a written agreement executed by the parties hereto or their respective successors and legal representatives.

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If to the Executive:

Dr. Louis F. Centofanti  
315 Wilderlake Court  
Atlanta, Georgia 30328

If to the Company:

Perma-Fix Environmental Services, Inc.  
1940 Northwest 67th Place  
Gainesville, Florida 32653  
Attn: Chief Financial Officer

or to such other address as either party shall have

furnished to the other in writing in accordance herewith. Notice and communications shall be effective when actually received by the addressee.

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11.6 Counterparts. This Agreement may be executed in two or more counterparts with the same effect as if the signatures to all such counterparts were upon the same instrument, and all such counterparts shall constitute but one instrument.

11.7 Headings. All headings in this Agreement are for convenience only and are not intended to affect the meaning of any provision hereof.

IN WITNESS WHEREOF, the Executive has hereunto set his hand and, pursuant to the authorization from its Board of Directors, the Company has caused these presents to be executed in its name on its behalf, all as of the day and year first above written.

"EXECUTIVE"

---

Dr. Louis F. Centofanti

"COMPANY"

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By: \_\_\_\_\_  
Title \_\_\_\_\_

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