





people

services

potential



# **CorporateProfile**

Perma-Fix Environmental Services, Inc. is a national environmental services company focused on applying proven and unique technologies and engineering expertise to solve complex waste management problems for commercial and government clients. Our proven capabilities encompass industrial, hazardous, radioactive and mixed (radioactive and hazardous) waste processing, technology development and consulting services. We provide services to federal, state and local agencies, including the Departments of Energy and Defense, nuclear utilities, pharmaceutical companies and research laboratories, as well as to Fortune 500 companies and thousands of smaller commercial clients.

# **OurPeople**

While Perma-Fix Environmental Services has millions of dollars in capital assets, our employees are an extremely important asset to our business. We pride ourselves on the high quality and extensive expertise of our people. Our team includes expert technical staff, seasoned regulatory people with extensive knowledge of local, state and federal environmental laws and regulations, an engineering group known for its permitting experience, and a dedicated customer service and support staff. Our experienced team has achieved many accomplishments, including the development of new technologies for the treatment and disposal of new and complex waste streams, as well as the effective use of proven technologies to solve our customers' needs.

# **OurPartners**

We utilize a partnering approach with our clients, which involves working with our clients to identify their waste problems, then developing cost-effective solutions and services that meet their needs. Our clients have a diverse set of needs that vary between government and commercial and nuclear and industrial. The solution can be a major logistical challenge, which can involve the cost-effective management of many different waste streams from many different locations. Some of our established partnerships include:

- o Bechtel Jacobs Company, who for over five years we have helped to eliminate mixed legacy waste at various Department of Energy ("DOE") sites.
- o Several cruise lines, for the disposal of their oily wastewater and other waste products since 1994.
- o The Kaiser-Hill team, with the accelerated cleanup of the Rocky Flats weapons site located near Denver, Colorado.
- o A major home improvement company, where we have developed a cost-effective approach to service thousands of stores.
- o Space Gateway Support, Inc., as contractor for the Kennedy Space Center, to handle its unique waste streams.





# **OurServices**

environmental services protecting our future

### **Nuclear**

Nuclear Waste Management Services ("Nuclear") includes nuclear, low-level radioactive, mixed (waste containing both hazardous and low-level radioactive constituents) hazardous and nonhazardous waste treatment, processing and disposal services through three uniquely licensed (Nuclear Regulatory Commission) and permitted (Environmental Protection Agency) treatment, storage and disposal ("TSD") facilities, and a remediation services group. The presence of nuclear and low-level radioactive constituents within the waste streams processed by this segment, create different and unique operational, processing and permitting/licensing requirements. This segment is also involved in research and development of innovative ways to process low-level radioactive and mixed waste.

### Industrial

Industrial Waste Management Services ("Industrial") includes off-site waste collection, storage, treatment, processing and disposal services of hazardous and non-hazardous waste (solids and liquids) through seven permitted treatment and/or disposal facilities and numerous related operations provided by our other field office locations. Additionally, this segment provides environmental services, which includes emergency response, vacuum services, marine environmental and other remediation services, as well as turnkey waste management and disposal services for large retail companies.

### **Engineering**

Consulting Engineering Services ("Engineering") provides environmental engineering and regulatory compliance consulting services through one subsidiary. This segment specializes in environmental management programs, permitting, compliance and auditing, in addition to landfill design, field investigation, testing and monitoring. The clients are primarily industrial, including many within the cement manufacturing industry. Engineering also provides the necessary support, compliance and training as required by our operating facilities.







# **OurPotential**

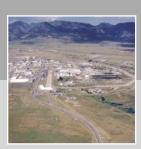
environmental solutions for the world, better opportunities for investors

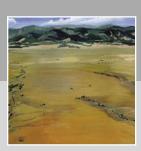
### **Rocky Flats Environmental Technology Site**

The Rocky Flats Environmental Technology Site is a DOE environmental cleanup site located near Denver. Prior to its closure, Rocky Flats made components for nuclear weapons using various radioactive and hazardous materials, including plutonium, uranium and beryllium. Nearly 40 years of nuclear weapons production left behind a legacy of contaminated facilities, soils and ground water. Kaiser-Hill proposed a cleanup project for the site that would be completed by December 2006, and included the removal of 805 structures, cleanup of 170 areas of contamination and the disposition of over 10,000 containers of legacy waste that existed when the closure project commenced. We have participated in Kaiser-Hill's cleanup mission through the treatment and disposal of significant volumes of low-level mixed waste, including the development of treatment capabilities for "Orphaned Waste Streams" (wastes with no defined disposition path). The large variety of mixed waste treated and dispositioned in support of the cleanup includes soils, sludges, excess chemicals (labpacks), depleted uranium chips, PCB contaminated wastes, and mercury contaminated wastes. Due to the success of the project, the cleanup is scheduled to be completed in December 2005, a year earlier than anticipated.

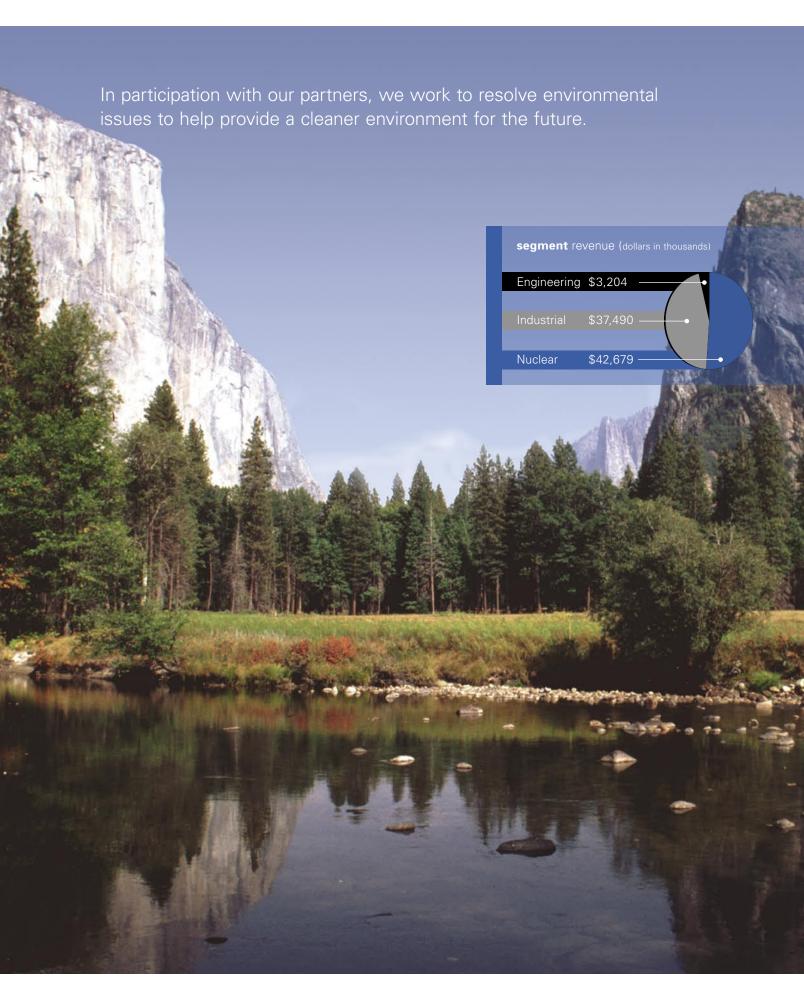
### **East Tennessee Technology Park**

The East Tennessee Technology Park is a DOE site in Oak Ridge, Tennessee. Formerly, the Oak Ridge Gaseous Diffusion Plant, which began operations as part of the Manhattan Project, produced enriched uranium initially for atomic weapons and later for the commercial nuclear power industry. Currently, the DOE is converting the site into a private industrial park of leased properties. Our M&EC facility is located on this site and is working with the DOE contractor, Bechtel Jacobs, to clean up the legacy of contaminated facilities, soils and ground water that encompasses a large portion of the site. We support the DOE through treatment and disposal of many complex mixed waste streams consisting of regulated organics, heavy metals, mercury, and PCB's. Our facilities have treated over 1.5 million pounds of these wastes to date. We continue to develop disposition paths for the unique waste streams that are identified by the DOE during cleanup activities. The current projected completion of the environmental cleanup of this site is 2008, several years ahead of the original plan.





Rocky Flats site prior to cleanup and demolition, and artist rendition of the wild-life refuge to be established upon its scheduled completion in December 2005.



# **To OurShareholders**

Our fiscal year 2004 has been an important year for Perma-Fix. We achieved our eighth consecutive year of top-line growth, while completing two acquisitions, paying down more than \$10 million of debt, and completing the restructuring of our Industrial segment. Despite the restructuring, we generated nearly \$7 million in cash flow from operations during 2004.

### **Nuclear Waste Management**

We are quite pleased with the results of our Nuclear segment. Revenues increased 14%, we achieved \$6.1 million in segment profit and we ended the year with a record \$16.2 million in backlog, which was up from \$5.8 million at the end of the previous year. This improvement in backlog positioned us well as we began 2005, and enables our operating staff to better plan and schedule the processing of the waste resulting in a more efficient operation.

During the year, we were awarded a \$6 million contract to treat mixed waste from a large Fortune 500 company that was generated from research and development activities. The performance of this project is on track and should be completed by the middle of 2005. This contract reinforces the fact that there is a growing commercial market for mixed waste services, including such research and development activities.

"We achieved our eighth consecutive year of top-line growth, while completing two acquisitions, paying down more than \$10 million of debt, and completing the restructuring of our Industrial segment."

During 2004, we were also awarded a \$23 million contract for the treatment of mixed waste generated at the Department of Energy's ("DOE") Hanford Site. This contract strengthens our position at Hanford, one of the DOE's largest facilities. We are now receiving waste from more than 25 DOE facilities including uranium enrichment, national laboratories and weapons plants and more than 10 Department of Defense facilities. As the government continues to accelerate its cleanup of these sites, we anticipate continued growth in our Nuclear segment. With the major capital investment that the Company has made in our Nuclear segment, as our revenues increase, we expect our margins will improve accordingly.

### **Industrial Waste Management**

During 2004, we acquired two new facilities, one in Baltimore and another in Pittsburgh, both of which are doing quite well and generating strong cash flow. The acquisitions enabled us to expand our presence within these two markets and we are benefiting from the synergies with our other facilities.

We also completed the restructuring of our Industrial Segment in 2004. We restructured the sales force for the Industrial segment, which has had a positive impact. We also removed a lot of costs out of the business and closed our Detroit facility, which had been losing money. Despite this significant restructuring, our Industrial segment revenue declined only slightly. Given our expanded presence and network within the southeastern United States, we are now the preferred choice for many companies, including certain Fortune 500 companies, seeking a one-stop solution for their industrial waste needs.

As evidence of our improved sales success, we signed a number of new contracts in 2004, including an award to treat waste at the Kennedy Space Center and a major contract from a leading North American home improvement retail chain. We successfully re-bid the project with the home improvement retail chain in early 2005, representing a 150 percent increase over our prior contract—reinforcing the quality of our customer service.

### Conclusion

In 2005, we are already seeing the benefits of our initiatives. During the fourth guarter of 2004 and first quarter of 2005, revenue increased 23 and 29 percent respectively. Additionally, our net income would have been much higher in 2004, if certain unusual expenses recorded during the year were excluded, and we nearly broke-even during the first guarter of 2005, traditionally our weakest guarter. It is also important to note that throughout 2004, we continued to generate strong cash flow.

During 2004, we repaid \$5.6 million of senior subordinated notes, which will result in an annual savings of almost \$760,000. Overall, we reduced our debt by over \$10 million and amended our existing revolving credit and term loan, which resulted in a reduction of our interest percentage by another 50 basis points. As a result of these 2004 activities, we are now in a much stronger position financially.

Looking ahead, our sales pipeline is now stronger than ever and I remain optimistic and upbeat about the outlook for both our Nuclear and Industrial segments. We are now well into the first half of 2005, and we continue to see revenue growth and new opportunities within our Nuclear segment, while at the same time we are focused on continued changes and new markets within our Industrial segment in an effort to improve its margins. Additionally, we have sufficient near-term capacity, and our existing infrastructure is highly leverageable. Furthermore, we are continuing to generate strong cash flow, and at this time see no need to raise additional capital.

I am especially grateful for the continued dedication of our loyal employees, whose hard work is helping us solve some of the greatest environmental problems. I'd also like to thank our investors for your patience as we underwent a number of major changes in 2004. Nevertheless, these changes were necessary and will help position us to generate increased value for our shareholders.

Sincerely,

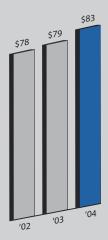
Dr. Louis F. Centofanti

President & Chief Executive Officer

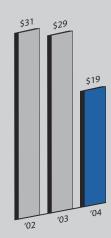
June 20, 2005

# **Financial Highlights**

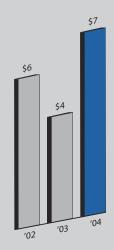
(in thousands)	2004	2003	2002	2001	2000
Net Revenues	\$83,373	\$79,153	\$77,778	\$68,890	\$52,776
Gross Profit	23,850	25,112	22,903	20,112	13,691
Operating Income	(4,848)	7,589	6,281	4,879	1,256
Working Capital	(497)	4,159	731	134	(3,233)
Total Assets	100,455	110,215	105,825	99,137	72,771
Current and Long-term Debt	18,956	29,088	30,515	31,146	25,490
Stockholders' Equity	42,248	50,442	44,585	41,841	22,020



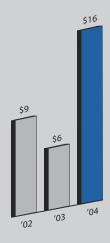
net revenues



current and long-term debt (dollars in millions)



operating cash flow (dollars in millions)



nuclear backlog (dollars in millions)

### UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

#### FORM 10-K

[X]	ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
	For the fiscal year ended <u>December 31, 2004</u>
	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)

<u>Delaware</u>
State or other jurisdiction
of incorporation or organization)

58-1954497
(IRS Employer Identification Number)

1940 N.W. 67<sup>th</sup> Place, Gainesville, FL (Address of principal executive offices)

**32653** (Zip Code)

(352) 373-4200

(Registrant's telephone number)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class</u>

Common Stock, \$.001 Par Value

Name of each exchange on which registered
Boston Stock Exchange
NASDAQ Small Cap Market

Securities registered pursuant to Section 12(g) of the Act: None

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 by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes  $\underline{X}$  No

The aggregate market value of the Registrant's voting and non-voting common equity held by nonaffiliates of the Registrant computed by reference to the closing sale price of such stock as reported by NASDAQ as of the last business day of the most recently completed second fiscal quarter (June 30, 2004), was approximately \$70,800,000. For the purposes of this calculation, all executive officers and directors of the Registrant (as indicated in Item 12) are deemed to be affiliates. Capital Bank Grawe Gruppe AG is not considered an affiliate based on representations made to the Registrant by Capital Bank. Such determination should not be deemed an admission that such directors or officers, are, in fact, affiliates of the Registrant. The Company's Common Stock is listed on the NASDAQ SmallCap market and the Boston Stock Exchange.

As of March 28, 2005, there were 41,805,267 shares of the registrant's Common Stock, \$.001 par value, outstanding, excluding 988,000 shares held as treasury stock.

Documents incorporated by reference: none

# PERMA-FIX ENVIRONMENTAL SERVICES, INC.

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### **PART I**

### ITEM 1. BUSINESS

### **Company Overview and Principal Products and Services**

Perma-Fix Environmental Services, Inc. (the Company, which may be referred to as we, us, or our), an environmental and technology know-how company, is a Delaware corporation, engaged through its subsidiaries, in:

- Industrial Waste Management Services ("Industrial"), which includes:
  - o Treatment, storage, processing, and disposal of hazardous and non-hazardous waste;
  - o Turnkey waste management and disposal services for large retail companies;
  - Wastewater management services, including the collection, treatment, processing and disposal of hazardous and non-hazardous wastewater; and
  - Environmental Services, including emergency response, vacuum services, marine environmental and other remediation services.
- Nuclear Waste Management Services ("Nuclear"), which includes:
  - Treatment, storage, processing and disposal of mixed waste (which is both low-level radioactive and hazardous waste) including on and off-site waste remediation and processing;
  - Nuclear, low-level radioactive, hazardous and non-hazardous waste treatment, processing and disposal; and
  - Research and development of innovative ways to process low-level radioactive and mixed waste.
- Consulting Engineering Services, which includes:
  - Oconsulting services regarding broad-scope environmental issues, including environmental management programs, regulatory permitting, compliance and auditing, landfill design, field testing and characterization.

We have grown through both acquisitions and internal development. Our present objective is to focus on the efficient operation of our existing facilities, evaluate strategic acquisitions within both the Nuclear and Industrial segments, and to continue the research and development of innovative technologies for the treatment of nuclear waste, mixed waste and industrial waste.

We service research institutions, commercial companies, retail companies, public utilities and governmental agencies nationwide. The distribution channels for our services are through direct sales to customers or via intermediaries.

We were incorporated in December of 1990. Our executive offices are located at 1940 N.W. 67th Place, Gainesville, Florida 32653.

# Website access to Company's reports

Our internet website address is www.perma-fix.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to section 13(a) or 15(d) of the Exchange Act are available free of charge through our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the Securities and Exchange Commission ("Commission").

### Segment Information and Foreign and Domestic Operations and Export Sales

During 2004, we were engaged in three operating segments. Pursuant to FAS 131, we define an operating segment as:

- a business activity from which we may earn revenue and incur expenses;
- whose operating results are regularly reviewed by the president to make decisions about resources to be allocated and assess its performance; and
- for which discrete financial information is available.

We therefore define our operating segments as each business line that we operate. These segments, however, exclude the Corporate headquarters, which does not generate revenue, and Perma-Fix of Michigan Inc. ("PFMI"), a discontinued operation.

Most of our activities are conducted nationwide, however, our Industrial segment maintains a significant role in the Eastern and Midwest portions of the United States. We had no foreign operations or export sales during 2004.

### **Operating Segments**

We have three operating segments, which represent each business line that we operate. The Industrial segment, which operates seven facilities, the Nuclear segment, which operates three facilities, and the Consulting Engineering Services segment as described below:

INDUSTRIAL WASTE MANAGEMENT SERVICES, which includes, off-site waste storage, treatment, processing and disposal services of hazardous and non-hazardous waste (solids and liquids) through seven permitted treatment and/or disposal facilities and numerous related operations provided by our other field office locations, as discussed below.

Perma-Fix Treatment Services, Inc. ("PFTS") is a Resource Conservation and Recovery Act of 1976 ("RCRA") permitted treatment, storage and disposal ("TSD") facility located in Tulsa, Oklahoma. PFTS stores and treats hazardous and non-hazardous waste liquids, provides waste transportation and disposal of non-hazardous liquid waste via its on-site Class I Injection Well located at the facility. The injection well is permitted for the disposal of non-hazardous liquids and characteristic hazardous wastes that have been treated to remove the hazardous characteristic. PFTS operates a non-hazardous wastewater treatment system for oil and solids removal, a corrosive treatment system for neutralization and metals precipitation, and a container stabilization system. The injection well is controlled by a computer system to assist in achieving compliance with all applicable state and federal regulations.

Perma-Fix of Dayton, Inc. ("PFD") is a RCRA permitted TSD facility located in Dayton, Ohio. PFD has four main processing areas. The four production areas are a RCRA permitted TSD, a centralized wastewater treatment area, a used oil recycling area, and a non-hazardous solids solidification area. Hazardous waste accepted under the RCRA permit is typically drum waste, which is bulked and sent off as a fuel, for incineration or stabilization. Wastewaters accepted at the facility include hazardous and non-hazardous wastewaters, which are treated by ultra filtration, metals precipitation and bio-degradation, including a biological wastewater process. Waste industrial oils and used motor oils are processed through high-speed centrifuges to produce a high quality fuel that is sold to and burned by industrial burners. See discussion below under "—Permits and Licenses" and "Legal Proceedings" as to certain actions brought by the U.S. Environmental Protection Agency ("EPA") and others alleging that PFD does not have the proper air permits under federal and certain state Clean Air Acts.

Perma-Fix of Ft. Lauderdale, Inc. ("PFFL") is a permitted facility located in Ft. Lauderdale, Florida. PFFL collects and treats wastewaters, oily wastewaters, used oil and other off-specification petroleum-based products, some of which may potentially be recycled into usable products. Key activities at PFFL include process cleaning and material recovery, production and sales of on-specification fuel oil, custom tailored waste management programs and hazardous material disposal and recycling materials from generators such as the cruise line and marine industries.

Perma-Fix of Orlando, Inc. ("PFO"), is a RCRA permitted TSD facility located in Orlando, Florida. PFO collects, stores and treats hazardous and non-hazardous wastes out of two processing buildings, under one of our most inclusive permits. PFO is also a transporter of hazardous waste and operates a transfer facility at the site. It is the base of our retail sales operations.

Perma-Fix of South Georgia, Inc. ("PFSG"), is a RCRA permitted TSD facility located in Valdosta, Georgia. PFSG provides storage, treatment and disposal services to hazardous and non-hazardous waste generators throughout the United States, in conjunction with the utilization of the PFO facility and transportation services. PFSG operates a hazardous waste storage facility that primarily blends and processes hazardous and non-hazardous waste liquids, solids and sludges into substitute fuel or as a raw material substitute in cement kilns that have been specially permitted for the processing of hazardous and non-hazardous waste.

Perma-Fix of Maryland, Inc. ("PFMD") is located in Baltimore, Maryland, and operates two near by sales and service offices. Effective March 23, 2004, we established PFMD and through acquisition, assumed certain assets and liabilities of USL Environmental Services, Inc. d/b/a A&A Environmental. PFMD offers environmental services such as 24-hour emergency response, vacuum services, hazardous and non-hazardous waste disposal, marine environmental and other remediation services.

Perma-Fix of Pittsburgh, Inc. ("PFP") is located in Pittsburgh, Pennsylvania. Effective March 23, 2004, we established PFP, and acquired certain assets of US Liquids of Pennsylvania, Inc. d/b/a EMAX. PFP provides environmental services such as transportation of drums and bulk loads, tank cleaning, industrial maintenance, dewatering, drum management, and chemical packaging. PFP also provides treatment of non-hazardous wastewaters such as leachates, oily waters, industrial process waters and off-spec products.

For 2004, the Industrial segment accounted for approximately \$37,490,000 (or 45.0%) of our total revenue, as compared to approximately \$38,512,000 (or 48.7%) for 2003. See "Financial Statements and Supplementary Data" for further details.

NUCLEAR WASTE MANAGEMENT SERVICES, which includes nuclear, low-level radioactive, mixed (waste containing both hazardous and low-level radioactive constituents) hazardous and non-hazardous waste treatment, processing and disposal services through three uniquely licensed (Nuclear Regulatory Commission) and permitted (Environmental Protection Agency) TSD facilities. The presence of nuclear and low-level radioactive constituents within the waste streams processed by this segment create different and unique operational, processing and permitting/licensing requirements, from those contained within the Industrial segment, as discussed below.

Perma-Fix of Florida, Inc. ("PFF"), located in Gainesville, Florida, specializes in the processing and treatment of certain types of wastes containing both low-level radioactive and hazardous wastes, which are known in the industry as mixed waste ("mixed waste"). PFF is one of the first facilities nationally to operate under both a hazardous waste permit and a radioactive materials license, from which it has built its reputation based on its ability to treat difficult waste streams using its unique processing technologies and its ability to provide related research and development services. With the amended permits and licenses received during 2000 and the expansion of its mixed waste processing equipment and capabilities, PFF has substantially increased the amount and type of mixed waste and low level radioactive waste that it can store and treat. Its mixed waste services have included the treatment and processing of waste Liquid Scintillation Vials (LSVs) since the mid 1980's. The LSVs are generated primarily by institutional research agencies and biotechnical companies. The business has expanded into receiving and handling other types of mixed waste, primarily from the nuclear utilities, commercial generators, prominent pharmaceutical companies, the Department of Energy ("DOE") and other government facilities as well as select mixed waste field remediation projects. PFF also continues to receive and process certain hazardous and non-hazardous waste streams as a compliment to its expanded nuclear and mixed waste processing activities.

Diversified Scientific Services, Inc. ("DSSI"), located in Kingston, Tennessee, specializes in the processing and destruction of certain types of mixed waste. DSSI, like PFF, is one of only a few facilities nationally to operate under both a hazardous waste permit and a radioactive materials license.

Additionally, DSSI is the only commercial facility of its kind in the U.S. that is currently operating and licensed to destroy liquid organic mixed waste, through such a treatment unit. DSSI provides mixed waste disposal services for nuclear utilities, commercial generators, prominent pharmaceutical companies, and agencies and contractors of the U.S. government, including the DOE and the Department of Defense ("DOD").

East Tennessee Materials & Energy Corporation ("M&EC"), located in Oak Ridge, Tennessee, is our third mixed waste facility. As with PFF and DSSI, M&EC also operates under both a hazardous waste permit and radioactive materials license. M&EC represents the largest of our three mixed waste facilities, covering 150,000 sq. ft., and is located in leased facilities on the DOE East Tennessee Technology Park. In addition to providing mixed waste treatment services to commercial generators, nuclear utilities and various agencies and contractors of the U.S. Government, including the DOD, M&EC was awarded three contracts to treat DOE mixed waste by Bechtel-Jacobs Company, LLC, DOE's Environmental Program Manager, which covers the treatment of mixed waste throughout all DOE facilities.

For 2004, the Nuclear business accounted for \$42,679,000 (or 51.2%) of total revenue, as compared to \$37,418,000 (or 47.3%) of total revenue for 2003. See "Financial Statements and Supplementary Data" for further details.

CONSULTING ENGINEERING SERVICES, which provides environmental engineering and regulatory compliance consulting services through one subsidiary, as discussed below.

Schreiber, Yonley & Associates ("SYA") is located in St. Louis, Missouri. SYA specializes in environmental management programs, permitting, compliance and auditing, in addition to landfill design, field investigation, testing and monitoring. SYA clients are primarily industrial, including many within the cement manufacturing industry. SYA also provides the necessary support, compliance and training as required by our operating facilities.

During 2004, environmental engineering and regulatory compliance consulting services accounted for approximately \$3,204,000 (or 3.8%) of our total revenue, as compared to approximately \$3,223,000 (or 4.1%) in 2003. See "Financial Statements and Supplementary Data" for further details.

## Importance of Patents and Trademarks, or Concessions Held

We do not believe we are dependent on any particular trademark in order to operate our business or any significant segment thereof. We have received registration through the year 2006 for the service mark "Perma-Fix" by the U.S. Patent and Trademark office.

We are active in the research and development of technologies that allow us to address certain of our customers' environmental needs. To date, our R&D efforts have resulted in the granting of five patents and the filing of an additional two pending patent applications. Our flagship technology, the Perma-Fix Process, is a proprietary, cost effective, treatment technology that converts hazardous waste into non-hazardous material. Subsequently, we developed the Perma-Fix II process, a multi-step treatment process that converts hazardous organic components into non-hazardous material. The Perma-Fix II process is particularly important to our mixed waste strategy. We believe that at least one third of DOE mixed waste contains organic components.

The Perma-Fix II process is designed to remove certain types of organic hazardous constituents from soils or other solids and sludges ("Solids") through a water-based system. We have filed a patent application with the U.S. Patent and Trademark Office covering the Perma-Fix II process. As of the date of this report, we have not received a patent for this process, and there are no assurances that such a patent will be issued. Until development of this Perma-Fix II process, we were not aware of a relatively simple and inexpensive process that would remove the organic hazardous constituents from Solids without elaborate and expensive equipment or expensive treating agents. Due to the organic hazardous constituents

involved, the disposal options for such materials are limited, resulting in high disposal cost when there is a disposal option available. By reducing the organic hazardous waste constituents in the Solids to a level where the Solids meet Land Disposal Requirements, the generator's disposal options for such waste are substantially increased, allowing the generator to dispose of such waste at substantially less cost. We began commercial use of the Perma-Fix II process in 2000. A patent application has also been filed for processes to treat radon, and other specialty materials utilizing variations of the Perma-Fix II process. However, changes to current environmental laws and regulations could limit the use of the Perma-Fix II process or the disposal options available to the generator. See "BUSINESS—Permits and Licenses" and "BUSINESS—Research and Development."

In September 2002, we completed the construction of our new biological wastewater process at PFD and began accepting commercial wastewater for treatment through this process. The biological wastewater process is a new technology which we developed utilizing our variable depth biological treatment process and several proprietary water treatment processes. The biological wastewater process is designed to remove certain organic constituents from highly organic, contaminated wastewaters. The biological wastewater process enables us to treat heavily contaminated wastewater streams, such as waste oils, phenols, and "lean" waters, at more competitive prices than traditional methods. The biological wastewater process meets the EPA's new centralized treatment standards that became effective in December of 2003.

### **Permits and Licenses**

Waste management companies are subject to extensive, evolving and increasingly stringent federal, state and local environmental laws and regulations. Such federal, state and local environmental laws and regulations govern our activities regarding the treatment, storage, processing, disposal and transportation of hazardous, non-hazardous and radioactive wastes, and require us to obtain and maintain permits, licenses and/or approvals in order to conduct certain of our waste activities. Failure to obtain and maintain our permits or approvals would have a material adverse effect on us, our operations and financial condition. The permits and licenses have a term ranging from one to ten years and, provided that we maintain a reasonable level of compliance, renew with minimal effort and cost. Historically, there have been no compelling challenges to the permit and license renewals. Such permits and licenses, however, represent a potential barrier to entry for possible competitors.

PFTS is a permitted solid and hazardous waste treatment, storage, and disposal facility. The RCRA Part B permit to treat and store certain types of hazardous waste was issued by the Waste Management Section of the Oklahoma Department of Environmental Quality ("ODEQ"). Additionally, PFTS maintains an Injection Well Facility Operations Permit issued by the ODEQ Underground Injection Control Section for our waste disposal injection well, and a pre-treatment permit in order to discharge industrial wastewaters to the local Publicly Owned Treatment Works ("POTW"). PFTS is also registered with the ODEQ and the Department of Transportation as a hazardous waste transporter.

PFFL operates under a used oil processors license and a solid waste processing permit issued by the Florida Department of Environmental Protection ("FDEP"), a transporter license issued by the FDEP and a transfer facility license issued by Broward County, Florida.

PFD operates a hazardous and non-hazardous waste treatment and storage facility under various permits, including a RCRA Part B permit. PFD provides wastewater pretreatment under a discharge permit with the local POTW and is a specification and off-specification used oil processor under the guidelines of the Ohio EPA. The EPA has advised PFD that it is required to operate under a Title V air permit. In connection therewith, on September 21, 2004, the EPA issued to PFD a Notice of Administrative Compliance Order ("Order") that, as a result, since PFD was operating without a Title V air permit and failed to install proper air pollution control equipment, it has been operating in violation of the Clean Air Act and PFD has six months from the effective date of the Order to develop, submit, obtain and comply with the Order. PFD does not believe, and its experts have advised PFD that they do not believe, that

PFD is required to obtain a Title V air permit. If, however, it is determined that PFD is and was required to operate under a Title V air permit, this determination could have a material adverse effect on PFD's operations. In addition, a citizens' suit has been filed against PFD in federal court located in Dayton, Ohio, alleging, among other things, that PFD is operating in violation of the federal and Ohio state clean air laws as a result of operating without proper air permits. See "Legal Proceedings" for further discussion as to legal proceedings relating to actions against PFD under the Clean Air Act.

PFO operates a hazardous and non-hazardous waste treatment and storage facility under various permits, including a RCRA Part B permit, and a used oil processors permit issued by the State of Florida. PFSG operates a hazardous waste treatment and storage facility under a RCRA Part B permit, issued by the State of Georgia.

PFMD operates under an oil operations permit issued by the Maryland Department of Environment and has permits/licenses to transport hazardous waste in over 13 states. PFMD also has a wastewater discharge permit through the city of Baltimore POTW.

PFP operates under an industrial discharge permit through a local POTW and a residual waste permit issued by the Pennsylvania Department of Environmental Protection ("PADEP").

PFF operates its hazardous and low-level radioactive waste activities under a RCRA Part B permit and a radioactive materials license issued by the State of Florida.

DSSI operates hazardous and low-level radioactive waste activities under a RCRA Part B permit and a radioactive materials license issued by the State of Tennessee.

M&EC operates hazardous and low-level radioactive waste activities under a RCRA Part B permit and a radioactive materials license issued by the State of Tennessee.

The combination of a RCRA Part B hazardous waste permit and a radioactive materials license, as held by PFF, DSSI and M&EC, are very difficult to obtain for a single facility and make these facilities very unique.

We believe that our facilities presently have obtained all approvals, licenses and permits necessary to enable them to conduct their business as they are presently conducted. However, as discussed above and in "Legal Proceedings", our subsidiary, PFD, is involved in certain legal proceedings alleging that PFD is operating without proper air permits. The failure of our facilities to renew any of their present approvals, licenses and permits, or the termination of any such approvals, licenses or permits, or if it is determined that PFD is operating without proper air permits, such could have a material adverse effect on us, our operations and financial condition.

### Seasonality

We experience a seasonal slowdown within our industrial segment operations and revenues during the winter months extending from late November through early March. The seasonality factor is a combination of poor weather conditions in the central plains and Midwestern geographical markets we serve for on-site and off-site waste management services, and the impact of reduced activities during holiday periods resulting in a decrease in revenues and earnings during such periods. Our engineering segment also experiences reduced activities and related billable hours throughout the November and December holiday periods. The DOE and DOD represent major customers for the Nuclear segment. In conjunction with the federal government's September 30 fiscal year-end, the Nuclear segment experiences seasonably large shipments during the third quarter, leading up to this government fiscal year-end, as a result of incentives and other quota requirements. Correspondingly for a period of approximately three months following September 30, the Nuclear segment is generally seasonably slow, as the governmental budgets are still being finalized, planning for the new year is occurring and we enter the holiday season.

### **Backlog**

The Nuclear segment of our Company maintains a backlog of stored waste, which represents waste that has not been processed. The backlog is principally a result of the timing and complexity of the waste being brought into the facilities and the selling price per container. We generally have an influx of mixed waste shipped to us during the third quarter of the year. As of December 31, 2004, our Nuclear segment had a backlog of \$16,243,000, as compared to \$15,782,000, as of December 31, 2003. Additionally the time it takes to process mixed waste from the time it arrives may increase due to the types and complexities of the waste we are currently receiving, as was experienced in the fourth quarter of 2004. The first quarter of our fiscal year is typically our slow period and the time in which we process more of our backlog.

### **Dependence Upon a Single or Few Customers**

The majority of our revenues for fiscal 2004 have been derived from hazardous, non-hazardous and mixed waste management services provided to a variety of industrial, commercial customers, retail services, and government agencies and contractors. Our customers are principally engaged in research, biotechnical development, transportation, chemicals, metal processing, electronic, automotive, petrochemical, refining and other similar industries, in addition to government agencies that include the DOE, DOD, and other federal, state and local agencies. We are not dependent upon a single customer, or a few customers. However, we have and continue to enter into contracts with (directly or indirectly as a subcontractor) the federal government. The contracts that we are a party to with the federal government or with others as a subcontractor to the federal government, generally provide that the government may terminate on 30 days notice or renegotiate the contracts, at the government's election. Our inability to continue under existing contracts that we have with the federal government (directly or indirectly as a subcontractor) could have a material adverse effect on our operations and financial condition.

M&EC was awarded three subcontracts ("Oak Ridge Contracts") by Bechtel Jacobs Company, LLC, ("Bechtel Jacobs"), the government-appointed manager of the environmental program for Oak Ridge, to perform certain treatment and disposal services relating to Oak Ridge. The Oak Ridge Contracts were issued to M&EC by Bechtel Jacobs, as a contractor to the DOE. The Oak Ridge Contracts are similar in nature to a blanket purchase order whereby the DOE specifies the approved waste treatment process and team to be used for certain disposal, but the DOE does not specify a schedule as to dates for disposal or quantities of disposal material to be processed. The Oak Ridge Contracts have been extended for a period of two years, through June 2005, with standard pricing modifications. We are currently receiving and processing waste under the Oak Ridge Contracts.

As with most such blanket processing agreements, the Oak Ridge Contracts contain no minimum or maximum processing guarantees, and may be terminated at any time pursuant to federal contracting terms and conditions. Each specific waste stream processed under the Oak Ridge Contracts will require a separate work order from DOE and will be priced separately with the intent of recognizing an acceptable profit margin. Consolidated revenues from Bechtel Jacobs for 2004, which includes revenues under the Oak Ridge Contracts total \$9,405,000 or 11.3% of total revenues, as compared to \$13,139,000 or 16.6% for the year ended December 31, 2003. Further, we have performed waste related services either directly or indirectly as a subcontractor to federal government agencies. Our total revenues relating to agencies of the federal government, directly or indirectly as subcontractors (including Bechtel Jacobs discussed above), represented \$31,791,000, or 38.1% of our consolidated revenues during 2004, as compared to \$34,969,000, or 44.2% of our consolidated revenues, during 2003. However, the government revenue is managed by numerous subcontractors to the government, who operate and make decisions independent of each other. See "Management's Discussion and Analysis of Financial Conditions and Results of Operations — Liquidity and Capital Resources of the Company."

During the first quarter of 2003, M&EC filed a lawsuit against Bechtel Jacobs seeking approximately \$4.3 million in surcharges under the Oak Ridge Contracts. Since the filing of the lawsuit, Bechtel Jacobs has continued to deliver waste to M&EC under the Oak Ridge Contracts and M&EC has entered into an

additional contract with Bechtel Jacobs relating to DOE waste at Oak Ridge. There are no assurances that the filing of the lawsuit will not result in Bechtel Jacobs canceling the Oak Ridge Contracts, which can be canceled at any time by either party.

### **Competitive Conditions**

Competition is intense within certain product lines within the Industrial segment of our business. We compete with numerous companies both large and small, that are able to provide one or more of the environmental services offered by us, certain of which may have greater financial, human and other resources than we have. However, we believe that the range of waste management and environmental consulting, treatment, processing and remediation services we provide affords us a competitive advantage with respect to certain of our more specialized competitors. We believe that the treatment processes we utilize offer a cost savings alternative to more traditional remediation and disposal methods offered by certain of our competitors. The intense competition for performing the services provided by us within the Industrial segment, in conjunction with the economic downturn over the past two years, has resulted in reduced gross margin levels for certain of those services.

The Nuclear segment has only a few competitors and does not currently experience such intense competitive pressures. At present we believe there are only four other facilities in the United States with the required radioactive materials license and hazardous waste permit that provide mixed waste processing. However, the generators always have the option to treat their own waste onsite.

The permitting and licensing requirements, and the cost to obtain such permits, are barriers to the entry of hazardous waste TSD facilities and radioactive and mixed waste activities as presently operated by our subsidiaries. We believe that there are no formidable barriers to entry into certain of the on-site treatment businesses, and certain of the non-hazardous waste operations, which do not require such permits. If the permit requirements for both hazardous waste storage, treatment and disposal activities and/or the licensing requirements for the handling of low level radioactive matters are eliminated or if such licenses or permits were made easier to obtain, such would allow more companies to enter into these markets and provide greater competition.

Within our Industrial segment we solicit business on a nationwide basis. However, we believe that we are a significant provider in the delivery of off-site waste treatment services in the Southeast, Midwest and Southwest portions of the United States. We compete with facilities operated by national, regional and independent environmental services firms located within a several hundred-mile radius of our facilities. Our Nuclear segment, with permitted radiological activities, solicits business on a nationwide basis, including the U.S. Territories and Antarctica.

Environmental engineering and consulting services provided by us through SYA involve competition with larger engineering and consulting firms. We believe that we are able to compete with these firms based on our established reputation in these market areas and our expertise in several specific elements of environmental engineering and consulting such as environmental applications in the cement industry.

# Capital Spending, Certain Environmental Expenditures and Potential Environmental Liabilities

During 2004, we spent approximately \$3,053,000 in capital expenditures, which was principally for the expansion and improvements to our operating facilities. This 2004 capital spending total includes \$320,000, which was financed. We have budgeted approximately \$6,000,000 for 2005 capital expenditures, to improve and expand our operations into new markets, reduce the cost of waste processing and handling, expand the range of wastes that can be accepted for treatment and processing and to maintain permit compliance requirements. Certain of these budgeted projects are discretionary and may either be delayed until later in the year or deferred altogether. We have traditionally incurred actual capital spending totals for a given year less than initial budget amount. The initiation and timing of projects are also determined by financing alternatives or funds available for such capital projects. We have also budgeted for 2005 approximately \$721,000 to comply with federal, state, and local regulations

in connection with remediation activities at our facilities. See Note 10 to Notes to Consolidated Financial Statements. However, there is no assurance that we will have the funds available for such budgeted expenditures. The above budgeted amounts for capital expenditures assumes that PFD is not required to have a Title V air permit in connection with its operations. If it is determined that PFD is required to have a Title V air permit, we anticipate that substantial additional capital expenditures at PFD will be required in order to bring PFD into compliance with Title V air permit requirements. We do not have reliable estimates of the cost of such additional capital expenditures. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources of the Company."

In June 1994, we acquired from Quadrex Corporation and/or a subsidiary of Quadrex Corporation (collectively, "Quadrex") three TSD companies, including PFD. The former owners of PFD had merged Environmental Processing Services, Inc. ("EPS") with PFD, which was subsequently sold to Quadrex. Through our acquisition of PFD in 1994 from Quadrex, we were indemnified by Quadrex for costs associated with remediating certain property leased by EPS from an affiliate of EPS on which EPS operated a chemical processing facility ("Leased Property"). Such remediation involves soil and/or groundwater restoration. The Leased Property used by EPS to operate its facility is separate and apart from the property on which PFD's facility is located. The contamination of the leased property occurred prior to PFD being acquired by Quadrex or us. During 1995, in conjunction with the bankruptcy filing by Quadrex, we recognized an environmental liability of approximately \$1,200,000 for remedial activities at the Leased Property. We have accrued approximately \$722,000, at December 31, 2004, for the estimated, remaining costs of remediating the Leased Property used by EPS, which will extend over the next two to five years.

In conjunction with the acquisition of Perma-Fix of Memphis, Inc. ("PFM"), we assumed and recorded certain liabilities to remediate gasoline contaminated groundwater and investigate, under the hazardous and solid waste amendments, potential areas of soil contamination on PFM's property. Prior to our ownership of PFM, the owners installed monitoring and treatment equipment to restore the groundwater to acceptable standards in accordance with federal, state and local authorities. We have accrued approximately \$736,000, at December 31, 2004, for the estimated, remaining costs of remediating the groundwater contamination.

The PFM facility is situated in the vicinity of the Memphis Military Defense Depot (the "Defense Facility"), which Defense Facility is listed as a Superfund Site. The Defense Facility is located in the general up gradient direction of ground water flow of the Allen Well Field utilized by Memphis Light, Gas & Water, a public water supply utilized in Memphis, Tennessee. Chlorinated compounds have previously been detected in the groundwater beneath the Defense Facility, as well as in very limited amounts in certain production wells in the adjacent Allen Well Field. The PFM facility is located in the down gradient direction of ground water flow from the Allen Well Field. Based upon a study performed by our environmental engineering group, we do not believe the PFM facility is the source of the chlorinated compounds in the noted production wells in the Allen Well Field.

In conjunction with the acquisition of PFSG during 1999, we recognized an environmental accrual of \$2,199,000 for estimated long-term costs to remove contaminated soil and to undergo ground water remediation activities at the acquired facility in Valdosta, Georgia. Initial valuation has been completed, along with the selection of the remedial process, and the planning and approval process. The remedial activities began in 2003. We have accrued approximately \$769,000, at December 31, 2004, to complete remediation of the facility, which we anticipate spending over the next two to three years. In conjunction with an oil spill at PFTS, we have accrued as of December 31, 2004, approximately \$69,000 to remediate the contaminated soil and ground water at this location. We expect to complete spending on this remedial project over the next two years.

During 2004, we have accrued \$25,000 to remediate oily contaminated soil on property adjacent to our PFFL property. We anticipate spending on this remedial activity to be completed in 2005.

In conjunction with the acquisition of PFMD in March 2004, we accrued for long-term environmental liabilities of \$391,000 as a best estimate of the cost to remediate the hazardous and/or non-hazardous contamination on certain properties owned by PFMD. This facility is not a RCRA facility, and is currently under no obligation to clean up the contamination. We do not intend to begin remediation in the immediate future, but if environmental regulations change, we could be forced to begin clean up of such contamination.

In conjunction with the acquisition of PFP in March 2004, we accrued \$150,000 in environmental liabilities as our best estimate of the cost to remediate and restore this leased property back to its original condition. The liability estimate is based on an environmental assessment completed by a third party as part of the due diligence work prior to acquisition. The Company operates a non-hazardous waste water facility on this leased property. We are currently under no obligation, and do not intend, to begin remediation of this leased property. However, upon termination of our lease or closure of this operation, such remediation, restoration, and equipment removal will be required.

As a result of the discontinuation of operation at the PFMI facility, we are required to complete certain closure and remediation activities pursuant to our RCRA permit. Also, in order to close and dispose of or sell the facility, we may have to complete certain additional remediation activities related to the land, building, and equipment. The extent and cost of the clean-up and remediation will be determined by state mandated requirements, the extent to which is not known at this time. Also, impacting this estimate is the level of contamination discovered, as we begin remediation, and the related clean-up standards which must be met in order to dispose of or sell the facility. We engaged our engineering firm, SYA, to perform an analysis and related estimate of the cost to complete the RCRA portion of the closure/clean-up costs and the potential long-term remediation costs. Based upon this analysis, we recorded an additional \$2,373,000 to arrive at our best estimate of the cost of this environmental closure and remediation liability, of \$2,464,000. We are unclear as to the extent of remediation necessary to dispose of or sell the facility and to what extent the state will require us to remediate the contamination. However, in the event of a sale of the facility all or part of this reserve could be reduced. During the fourth quarter of 2004, we spent approximately \$116,000 of this closure cost estimate. In the event we do not sell the PFMI facility, we would anticipate spending \$544,000 in 2005 and the remainder over the next two to five years.

No insurance or third party recovery was taken into account in determining our cost estimates or reserves, nor do our cost estimates or reserves reflect any discount for present value purposes. See Note 10 to Notes to Consolidated Financial Statements for discussion on environmental liabilities.

The nature of our business exposes us to significant risk of liability for damages. Such potential liability could involve, for example, claims for cleanup costs, personal injury or damage to the environment in cases where we are held responsible for the release of hazardous materials; claims of employees, customers or third parties for personal injury or property damage occurring in the course of our operations; and claims alleging negligence or professional errors or omissions in the planning or performance of our services. In addition, we could be deemed a responsible party for the costs of required cleanup of any property, which may be contaminated by hazardous substances generated or transported by us to a site we selected, including properties owned or leased by us. We could also be subject to fines and civil penalties in connection with violations of regulatory requirements.

### **Research and Development**

Innovation and technical know-how by our operations is very important to the success of our business. Our goal is to discover, develop and bring to market innovative ways to process waste that address unmet environmental needs. We conduct research internally, and also through collaborations with other third parties. The majority of our research activities are performed as we receive new and unique waste to treat, as such we recognize these expenses as a part of our processing costs. We feel that our investments in research have been rewarded by the discovery of the Perma-Fix Process and the Perma-Fix II process. Our competitors also devote resources to research and development and many such competitors have greater resources at their disposal than we do. We have estimated that during 2002, 2003, and 2004, we spent approximately \$388,000, \$661,000, and \$433,000, respectively, in Company-sponsored research and development activities.

### **Number of Employees**

In our service-driven business, our employees are vital to our success. We believe we have good relationships with our employees. As of December 31, 2004, we employed approximately 498 full time persons, of which approximately 16 were assigned to our Corporate office, approximately 21 were assigned to our Consulting Engineering Services segment, approximately 262 to the Industrial segment, and approximately 199 to the Nuclear segment.

# **Governmental Regulation**

Environmental companies and their customers are subject to extensive and evolving environmental laws and regulations by a number of national, state and local environmental, safety and health agencies, the principal of which being the EPA. These laws and regulations largely contribute to the demand for our services. Although our customers remain responsible by law for their environmental problems, we must also comply with the requirements of those laws applicable to our services. We cannot predict the extent to which our operations may be affected by future enforcement policies as applied to existing laws or by the enactment of new environmental laws and regulations. Moreover, any predictions regarding possible liability are further complicated by the fact that under current environmental laws we could be jointly and severally liable for certain activities of third parties over whom we have little or no control. Although we believe that we are currently in substantial compliance with applicable laws and regulations, we could be subject to fines, penalties or other liabilities or could be adversely affected by existing or subsequently enacted laws or regulations. The principal environmental laws affecting our customers and us are briefly discussed below.

### The Resource Conservation and Recovery Act of 1976, as amended ("RCRA")

RCRA and its associated regulations establish a strict and comprehensive regulatory program applicable to hazardous waste. The EPA has promulgated regulations under RCRA for new and existing treatment, storage and disposal facilities including incinerators, storage and treatment tanks, storage containers, storage and treatment surface impoundments, waste piles and landfills. Every facility that treats, stores or disposes of hazardous waste must obtain a RCRA permit or must obtain interim status from the EPA, or a state agency, which has been authorized by the EPA to administer its program, and must comply with certain operating, financial responsibility and closure requirements. RCRA provides for the granting of interim status to facilities that allows a facility to continue to operate by complying with certain minimum standards pending issuance or denial of a final RCRA permit.

# Boiler and Industrial Furnace Regulations under RCRA ("BIF Regulations")

BIF Regulations require boilers and industrial furnaces, such as cement kilns, to obtain permits or to qualify for interim status under RCRA before they may use hazardous waste as fuel. If a boiler or industrial furnace does not qualify for interim status under RCRA, it may not burn hazardous waste as fuel or use such as raw materials without first having obtained a final RCRA permit. In addition, the BIF Regulations require 99.99% destruction of the hazardous organic compounds used as fuels in a boiler or industrial furnace and impose stringent restrictions on particulate, carbon monoxide, hydrocarbons, toxic metals and hydrogen chloride emissions.

## The Safe Drinking Water Act, as amended (the "SDW Act")

SDW Act regulates, among other items, the underground injection of liquid wastes in order to protect usable groundwater from contamination. The SDW Act established the Underground Injection Control Program ("UIC Program") that provides for the classification of injection wells into five classes. Class I wells are those which inject industrial, municipal, nuclear and hazardous wastes below all underground sources of drinking water in an area. Class I wells are divided into non-hazardous and hazardous categories with more stringent regulations imposed on Class I wells which inject hazardous wastes. PFTS' permit to operate its underground injection disposal wells is limited to non-hazardous wastewaters.

# The Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA," also referred to as the "Superfund Act")

CERCLA governs the cleanup of sites at which hazardous substances are located or at which hazardous substances have been released or are threatened to be released into the environment. CERCLA authorizes the EPA to compel responsible parties to clean up sites and provides for punitive damages for noncompliance. CERCLA imposes joint and several liability for the costs of clean up and damages to natural resources.

# **Health and Safety Regulations**

The operation of our environmental activities is subject to the requirements of the Occupational Safety and Health Act ("OSHA") and comparable state laws. Regulations promulgated under OSHA by the Department of Labor require employers of persons in the transportation and environmental industries, including independent contractors, to implement hazard communications, work practices and personnel protection programs in order to protect employees from equipment safety hazards and exposure to hazardous chemicals.

### **Atomic Energy Act**

The Atomic Energy Act of 1954 governs the safe handling and use of Source, Special Nuclear and Byproduct materials in the U.S. and its territories. This act authorized the Atomic Energy Commission (now the Nuclear Regulatory Commission) to enter into "Agreements with States to carry out those regulatory functions in those respective states except for Nuclear Power Plants and federal facilities like the VA hospitals and the DOE operations." The State of Florida (with the USNRC oversight), Office of Radiation Control, regulates the radiological program of the PFF facility, and the State of Tennessee (with the USNRC oversight), Tennessee Department of Radiological Health, regulates the radiological program of the DSSI and M&EC facilities.

### **Other Laws**

Our activities are subject to other federal environmental protection and similar laws, including, without limitation, the Clean Water Act, the Clean Air Act, the Hazardous Materials Transportation Act and the Toxic Substances Control Act. Many states have also adopted laws for the protection of the environment which may affect us, including laws governing the generation, handling, transportation and disposition of hazardous substances and laws governing the investigation and cleanup of, and liability for, contaminated sites. Some of these state provisions are broader and more stringent than existing federal law and regulations. Our failure to conform our services to the requirements of any of these other applicable federal or state laws could subject us to substantial liabilities which could have a material adverse affect on us, our operations and financial condition. In addition to various federal, state and local environmental regulations, our hazardous waste transportation activities are regulated by the U.S. Department of Transportation, the Interstate Commerce Commission and transportation regulatory bodies in the states in which we operate. We cannot predict the extent to which we may be affected by any law or rule that may be enacted or enforced in the future, or any new or different interpretations of existing laws or rules.

### **Insurance**

We believe we maintain insurance coverage adequate for our needs and similar to, or greater than, the coverage maintained by other companies of our size in the industry. There can be no assurances, however, that liabilities, which we may incur will be covered by our insurance or that the dollar amount of such liabilities, which are covered will not exceed our policy limits. Under our insurance contracts, we usually accept self-insured retentions, which we believe appropriate for our specific business risks. We are required by EPA regulations to carry environmental impairment liability insurance providing coverage for damages on a claims-made basis in amounts of at least \$1 million per occurrence and \$2 million per year in the aggregate. To meet the requirements of customers, we have exceeded these coverage amounts.

In June 2003, we entered into a 25-year finite risk insurance policy, which provides financial assurance to the applicable states for our permitted facilities in the event of unforeseen closure. Prior to obtaining, and at all times while operating under our permits, we are required to provide financial assurance that guarantees to the states that, in the event of closure, our permitted facilities will be closed in accordance with the regulations. The policy provides \$35 million of financial assurance coverage.

### ITEM 2. PROPERTIES

Our principal executive offices are in Gainesville, Florida. Our Industrial segment headquarters is located in Atlanta, Georgia, and maintains facilities in Orlando and Ft. Lauderdale, Florida; Dayton, Ohio; Tulsa, Oklahoma; Valdosta, Georgia; Baltimore, Maryland; and Pittsburgh, Pennsylvania. Our Nuclear segment headquarters is located in Oak Ridge, Tennessee, and maintains facilities in Gainesville, Florida; Kingston, Tennessee; and Oak Ridge, Tennessee. Our Consulting Engineering Services are located in St. Louis, Missouri. We also maintain Field Services offices in Jacksonville, Florida; Anniston, Alabama; Honolulu, Hawaii; Memphis, Tennessee; Stafford, Virginia; and Salisbury, Maryland.

We own ten facilities, all of which are in the United States. Six of our facilities are subject to mortgages as placed by our senior lender. In addition, we lease properties for office space, all of which are located in the United States as described above. Included in our leased properties is M&EC's 150,000 square-foot facility, located on the grounds of the DOE East Tennessee Technology Park located in Oak Ridge, Tennessee.

We believe that the above facilities currently provide adequate capacity for our operations and that additional facilities are readily available in the regions in which we operate, which could support and supplement our existing facilities.

### ITEM 3. LEGAL PROCEEDINGS

PFMI, which was purchased by us effective June 1, 1999, has been notified that it is considered a potentially responsible party ("PRP") in four Superfund sites, three of which had no relationship with PFMI according to PFMI records. As to the fourth site, which PFMI has been unable to determine whether PFMI had any relationship with this site, such relationship, if any, would appear to be *de minimus*.

PFO, which was purchased by us in June, 1999, has been notified that it is a PRP in two separate Superfund sites. At the Spectron Superfund site in Elkton, Maryland, PFO has been notified by the EPA that the EPA is seeking reimbursement from all PRPs at the site for the EPA's Phase II cost and to further investigate the contamination at the facility. At this point, we believe that PFO may have sent some waste to the site, but not a substantial amount. At this time, we are unable to determine what exposure, if any, PFO may have in connection with this site.

PFO has also been notified that it is a PRP at the Seaboard Chemical Corporation Superfund Site in Jamestown, North Carolina. In October, 1991, PFO joined the "Seaboard Group," a group of potentially responsible parties organized to clean up the site while keeping costs at a minimum. Initially, PFO was

identified as a *de minimus* party under the Seaboard Group agreement which defined a *de minimus* contributor as one acting as either a transporter or generator who was responsible for less than 1% of the waste at the site. However, in June, 1992, the Seaboard Group adopted an amendment to the Seaboard Group agreement which allows a potentially responsible party who is a generator to participate in the Seaboard Group without relinquishing contributions claims against its broker and/or transporter. Based upon the amount of waste which PFO brokered to the site, PFO's status may no longer be considered *de minimus* under the Seaboard Group agreement. PFO is unable to determine what exposure, if any, it may have in connection with this site.

PFFL had previously been advised by the EPA that a release or threatened release of hazardous substances has been documented by the EPA at the former facility of Florida Petroleum Reprocessors (the "Site"), which is located approximately 3,000 feet northwest of the PFFL facility in Davie, Florida. However, studies conducted by, or under the direction of, the EPA, together with data previously provided to PFFL by the EPA, do not indicate that the PFFL facility in Davie, Florida has contributed to the deep groundwater contamination associated with the Site. However, in January 2005, PFFL received a notice letter from the EPA indicating that it was a PRP, and providing a *de minimis* settlement offer. If we accept the settlement offer our liability would be approximately \$40,000. We are in the process of reviewing this claim and our potential exposure in connection with this site.

On February 24, 2003, M&EC, commenced legal proceedings against Bechtel Jacobs Company, LLC, in the chancery court for Knox County, Tennessee, seeking payment from Bechtel Jacobs of approximately \$4.3 million in surcharges relating to certain wastes that were treated by M&EC during 2001 and 2002. M&EC is operating primarily under three subcontracts with Bechtel Jacobs, which were awarded under contracts between Bechtel Jacobs and the U.S. Department of Energy. M&EC and Bechtel Jacobs had been discussing these surcharges under the subcontracts for over a year prior to filing the suit. During 2003, M&EC recognized revenue and recorded a receivable in the amount of \$381,000 related to these surcharges. In 2004, the revenues generated by M&EC with Bechtel Jacobs represented approximately 11.3% of our 2004 total revenues. Since the filing of this lawsuit, Bechtel Jacobs has continued to deliver waste to M&EC for treatment and disposal, and M&EC continues to accept such waste, under the subcontracts, and M&EC and Bechtel Jacobs have entered into an additional contract for M&EC to treat DOE waste. Although we do not believe that this lawsuit will have a material adverse effect on our operations, Bechtel Jacobs could terminate the subcontracts with M&EC, as either party can terminate the subcontracts at any time.

During January 2004, the EPA issued to PFD, our wholly owned subsidiary, a Notice of Findings of Violations ("Findings") alleging that PFD committed numerous violations of the Clean Air Act (the "Act") or regulations thereunder. On September 28, 2004, PFD received an Administrative Compliance Order ("Order"), dated September 21, 2004, from EPA alleging that PFD was a "major source" of hazardous air pollutants and, as a major source, PFD was required to have obtained a Title V air permit, in connection with its operations, and thereby was not in compliance with provisions of the Act and/or regulations thereunder applicable to a major source, and, as a result, PFD also failed to install proper air pollution equipment and failed to meet certain administrative burdens relating to equipment that was constructed or modified at PFD's facility in 2000 and 2001. The Order further provides that PFD has six months from the effective date of the Order, to develop, submit, obtain and comply with numerous costly and burdensome compliance initiatives applicable to one that is a major source of hazardous air pollutants and to submit an application to the State of Ohio for a Title V Air permit, which six month period is about to expire. The Order does not assert any penalties or fines but provides that PFD is not absolved of any liabilities, including liability for penalties, for the alleged violations cited in the Order, and that failure to comply with the Order may subject PFD to penalties up to \$32,500 per day for each violation. PFD has subsequently and timely met with the EPA on several occasions and the EPA and PFD are exchanging information in an effort to resolve this matter. We have retained environmental consultants who have advised us that, based on the tests that they have performed, they do not believe that PFD is a major source of hazardous air pollutants. We have been further advised by counsel that if PFD is not a major

source of hazardous air pollutants, PFD would not be required to obtain a Title V air permit, would not have violated the provisions of the Act alleged in the Order and would not be required to comply with the costly and burdensome compliance initiatives contained in the Order. Upon expiration of the six month period referenced in the Order, the EPA may, at its option, seek to enforce the Order in a court of competent jurisdiction and seek penalties for the alleged violations and failure to comply with the Order. At that time PFD may assert its defenses, including, but not limited to, any constitutional arguments that it may have. A determination that PFD was a major source of hazardous air pollutants and required to comply with the Order, such could have a material adverse effect on us. We intend that PFD will vigorously defend itself in connection with this matter.

In December 2004, PFD received a complaint brought under the citizen's suit provisions of the Clean Air Act in the United States District Court for the Southern District of Ohio, Western district, styled Barbara Fisher v. Perma-Fix of Dayton, Inc. The suit alleges violation by PFD of a number of state and federal clean air statutes in connection with the operation of PFD's facility, primarily due to the operating without a Title V air permit, and further alleges that air emissions from PFD's facility endanger the health of the public and constitutes a nuisance in violation of Ohio law. The action seeks injunctive relief, imposition of civil penalties, attorney fees and costs and other forms of relief. We intend to vigorously defend ourselves in connection with this matter. See above discussion as to administrative proceedings instituted by the EPA.

In October 2004, Perma-Fix of South Georgia, Inc. ("PFSG") and Perma-Fix of Orlando, Inc. ("PFO") were notified that they are PRPs at the Malone Service Company Superfund site in Texas City, Texas ("Site"). The EPA designated both PFSG and PFO as *de minimis* parties, which is determined as a generator that contributed less than 0.6% of the total hazardous materials at the Site. The EPA has made a settlement offer to all *de minimis* parties, that requires response within 45 days of receipt of the notice. PFSG and PFO have accepted the settlement offer and recorded a liability at December 31, 2004, in the amount of \$229,000. As of the date of this report, payment has not however been made to satisfy this liability.

During February 2003, PFMI received a letter alleging that PFMI owed Reliance Insurance Company, in liquidation, the sum of \$515,000 as a result of retrospective premiums under a retroactive premium agreement. In November 2003, PFMI received a second letter alleging that PFMI owed Reliance Insurance Company, in liquidation, the sum of \$583,000, reflecting an adjustment to the original amount of retrospective premiums under a retroactive premium agreement. Our counsel responded and advised that PFMI had numerous defenses to the demand, including, but not limited to, that the policy expired almost eight years ago and failure to adjust the premiums in a timely manner violated the agreement between the Company and Reliance and that under Michigan law it is deemed to be an unfair and deceptive act or practice in the business of insurance for an insurer to fail to complete a final audit within 120 days after termination of the policy. The Company and PFMI intend to vigorously defend this matter. However, in December 2003, we accrued approximately \$217,000 for this contingent liability.

In addition to the above matters and in the normal course of conducting our business, we are involved in various other litigation. We are not a party to any litigation or governmental proceeding which our management believes could result in any judgments or fines against us that would have a material adverse affect on our financial position, liquidity or results of future operations.

### ITEM 4A. EXECUTIVE OFFICERS OF THE COMPANY

The following table sets forth, as of the date hereof, information concerning the Executive Officers of the Company:

<u>NAME</u>	<b>AGE</b>	<u>POSITION</u>
Dr. Louis F. Centofanti	61	Chairman of the Board, President and Chief Executive Officer
Mr. Richard T. Kelecy	49	Chief Financial Officer, Vice President and Secretary
Mr. Larry McNamara	55	President, Nuclear Services
Mr. Timothy Keegan	47	President, Industrial Services
Mr. William Carder	55	Vice President, Sales and Marketing

### DR. LOUIS F. CENTOFANTI

Dr. Centofanti has served as Chairman of the Board since he joined the Company in February 1991. Dr. Centofanti also served as President and Chief Executive Officer of the Company from February 1991 until September 1995 and again in March 1996 was elected to serve as President and Chief Executive Officer of the Company. From 1985 until joining the Company, Dr. Centofanti served as Senior Vice President of USPCI, Inc., a large hazardous waste management company, where he was responsible for managing the treatment, reclamation and technical groups within USPCI. In 1981 he founded PPM, Inc., a hazardous waste management company specializing in the treatment of PCB contaminated oils, which was subsequently sold to USPCI. From 1978 to 1981, Dr. Centofanti served as Regional Administrator of the U.S. Department of Energy for the southeastern region of the United States. Dr. Centofanti has a Ph.D. and a M.S. in Chemistry from the University of Michigan, and a B.S. in Chemistry from Youngstown State University.

### MR. RICHARD T. KELECY

Mr. Kelecy was elected Vice-President and Chief Financial Officer in September 1995. He previously served as Chief Accounting Officer and Treasurer of the Company from July 1994 until beginning his current positions. From 1992 until June 1994, Mr. Kelecy was Corporate Controller and Treasurer for Quadrex Corporation. From 1990 to 1992 Mr. Kelecy was Chief Financial Officer for Superior Rent-a-Car, and from 1983 to 1990 held various positions at Anchor Glass Container Corporation including Assistant Treasurer. Mr. Kelecy has a B.A. in Accounting from Westminster College.

### MR. LARRY MCNAMARA

Mr. McNamara has served as President of the Nuclear Waste Management Services Segment since October 2000. From December 1998 to October 2000, he served as Vice President of the Nuclear Waste Management Services Segment for the Company's nuclear activities. Between 1997 and 1998, he served as Mixed Waste Program Manager for Waste Control Specialists (WCS) developing plans for the WCS mixed waste processing facilities, identifying markets and directing proposal activities. Between 1995 and 1996, Mr. McNamara was the single point of contact for the DOD to all state and federal regulators for issues related to disposal of Low Level Radioactive Waste and served on various National Committees and advisory groups. Mr. McNamara served, from 1992 to 1995, as Chief of the Department of Defense Low Level Radioactive Waste office. Between 1986 and 1992 he served as the Chief of Planning for the Department of Army overseeing project management and program policy for the Army program. Mr. McNamara has a B.S. from the University of Iowa.

### MR. TIMOTHY KEEGAN

Mr. Keegan joined the Company in April 2003, as President of the Industrial Waste Management Services segment. Previously, Mr. Keegan served as Senior Vice President of Operations of Safety-Kleen from 1999 to 2001, where he had sales, operational, and accounting responsibility for over \$300 million in revenue. Mr. Keegan also served as Vice President for southeast operations at Safety-Kleen from 1998 to 1999, and Vice President of PCB/remedial services from 1995 to 1998. Prior to joining Safety-Kleen, Mr. Keegan served as Vice President of PCB services for USPCI from 1991 to 1995. Mr. Keegan also

served as President of PPM, Inc., a PCB waste management company from 1988 to 1991. Mr. Keegan has an M.B.A. from Syracuse University.

### MR. WILLIAM CARDER

Mr. Carder joined the Company in January 2003 as Vice President of Sales and Marketing. Previously, Mr. Carder was Regional Manager for COGEMA, Inc. from June 1997 to July of 2002. From February 1992 to April 1997 he served in a number of positions for Scientific Ecology Group, a division of Westinghouse, including Vice President of Government Sales, Vice President of Business Development, and finally Vice President of Sales and Marketing. From 1987 through 1991, Mr. Carder served with Quadrex Corporation as Vice President of Sales and Marketing. Prior to joining Quadrex, he spent fifteen years (1971 to 1987) with the Nuclear Energy Business Operation of General Electric Company as field engineer, project engineer, service supervisor and manager, service sales engineer and manager and finally as the Commercial Program Manager for the northeast region. Mr. Carder has a B.S. in Nuclear Engineering from North Carolina State University.

### **PART II**

# ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our Common Stock, with a par value of \$.001 per share, is traded on the NASDAQ SmallCap Market ("NASDAQ") and the Boston Stock Exchange ("BSE") under the symbol "PESI" on both NASDAQ and BSE. Our Common Stock is also traded on the Berlin Stock Exchange under the symbol "PES.BE." The following table sets forth the high and low market trade prices quoted for the Common Stock during the periods shown. The source of such quotations and information is the NASDAQ online trading history reports.

		2	004	2	003
		Low	High	Low	High
Common Stock	1st Quarter	\$ 2.17	\$ 3.79	\$ 1.49	\$ 2.62
	2 <sup>nd</sup> Quarter	1.57	2.33	1.68	2.20
	3 <sup>rd</sup> Quarter	1.44	1.91	1.60	2.28
	4 <sup>th</sup> Quarter	1.20	1.85	1.68	3.56

Such over-the-counter market quotations reflect inter-dealer prices, without retail markups or commissions and may not represent actual transactions.

As of March 7, 2005, there were approximately 296 stockholders of record of our Common Stock, including brokerage firms and/or clearing houses holding shares of our Common Stock for their clientele (with each brokerage house and/or clearing house being considered as one holder). However, the total number of beneficial stockholders as of March 10, 2005, was approximately 4,103.

Since our inception, we have not paid any cash dividends on our Common Stock and have no dividend policy. Our loan agreement prohibits paying any cash dividends on our Common Stock without prior approval.

No sales of unregistered securities, other than the securities sold by us during 2004, as reported in our Forms 10-Q for the quarters ended March 31, 2004, June 30, 2004 and September 30, 2004, which were not registered under the Securities Act of 1933, as amended, were issued during 2004.

### ITEM 6. SELECTED FINANCIAL DATA

The financial data included in this table has been derived from our audited consolidated financial statements, which have been audited by BDO Seidman, LLP.

# **Statement of Operations Data:**

Fermion - Marie - Mari	$2004^{(3)}$	2003	2002	20	$001^{(2)}$	$2000^{(1)}$
Revenues	\$ 83,373	\$ 79,153	\$ 77,778	6	58,890	\$ 52,776
Income (loss) from continuing operations	(9,548)	3,644	2,677		(954)	(1,063)
Income (loss) from discontinued operations	(9,813)	(526)	(475)		352	507
Net income (loss)	(19,361)	3,118	2,202		(602)	(556)
Preferred Stock dividends	(190)	(189)	(158)		(145)	(206)
Net income (loss) applicable to						
Common Stock	(19,551)	2,929	2,044		(747)	(762)
Income (loss) per common share - Basic						
Continuing operations	(.24)	.10	.07		(.04)	(.06)
Discontinued operations	(.24)	(.02)	(.01)		.01	.02
Net income (loss) per share	(.48)	.08	.06		(.03)	(.04)
Income (loss) per common share - Diluted						
Continuing operations	(.24)	.09	.06		(.04)	(.06)
Discontinued operations	(.24)	(.01)	(.01)		.01	.02
Net income (loss) per share	(.48)	.08	.05		(.03)	(.04)
Basic number of shares used in computing						
net income (loss) per share	40,478	34,982	34,217	2	27,235	21,558
Diluted number of shares and potential						
common shares used in computing						
net income (loss) per share	40,478	39,436	42,618	2	27,235	21,558

### **Balance Sheet Data:**

		December 31,									
	2004	2003	2002	2001		2000					
Working capital (deficit)	\$ (497)	\$ 4,159	\$ 731	\$ 134	\$	(3,233)					
Total assets	100,455	110,215	105,825	99,137		72,771					
Current and long-term debt	18,956	29,088	30,515	31,146		25,490					
Total liabilities	56,922	58,488	59,955	56,011		50,751					
Preferred Stock of subsidiary	1,285	1,285	1,285	1,285		_					
Stockholders' equity	42,248	50,442	44,585	41,841		22,020					

<sup>&</sup>lt;sup>(1)</sup> Includes financial data of DSSI as acquired during 2000 and accounted for using the purchase method of accounting from the date of acquisition, August 31, 2000.

<sup>&</sup>lt;sup>(2)</sup> Includes financial data of M&EC as acquired during 2001 and accounted for using the purchase method of accounting from the date of acquisition, June 25, 2001.

Includes financial data of PFMD and PFP as acquired during 2004 and accounted for using the purchase method of accounting from the date of acquisition, March 23, 2004.

# ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

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"). See "Special Note regarding Forward-Looking Statements" contained in this report.

Management's discussion and analysis is based, among other things, upon our audited consolidated financial statements and includes our accounts and the accounts of our wholly-owned subsidiaries, after elimination of all significant intercompany balances and transactions.

The following discussion and analysis should be read in conjunction with our consolidated financial statements and the notes thereto included in Item 8 of this report.

### Overview

Looking back at 2004, this was certainly a challenging year for us. We completed the acquisition of the Pittsburgh and Maryland Industrial facilities, improved our operating cash flow, paid down our long-term debt by more than \$10.0 million and completed the restructuring of our Industrial segment. Consolidated revenues for the year increased 5.3% to \$83.4 million. We continued to see unique opportunities within the Nuclear segment, received contract awards from both government and commercial customers for the treatment of Nuclear mixed waste and correspondingly experienced strong growth in revenues from this segment. Our Nuclear segment revenues increased 14.1% or \$5.3 million during 2004. Increased Nuclear mixed waste shipments in the fourth quarter, in addition to favorable pricing per container, resulted in a record \$16.2 million backlog of stored waste within the Nuclear segment, at December 31, 2004. During the third quarter, we made the difficult decision to discontinue the operations of our Michigan Industrial facility, resulting in the total loss on discontinued operations of \$9.8 million, at December 31, 2004. We also recorded during the year a number of Industrial segment nonrecurring charges, such as the goodwill and other intangible impairment charge of \$9.0 million, the \$1.0 million loss on disposal of fixed assets and certain other charges recorded to selling, general and administrative and "other expense" categories, a majority of which are non cash charges. In conjunction with the equity we raised earlier in the year, we prepaid the \$5.6 million 13.5% senior subordinated notes and recorded a non cash charge of \$1.2 million for the acceleration of the amortization of prepaid financing fees and debt discount, and paid an early termination fee of \$190,000, the benefit of which is already seen in our interest and amortization expense reductions in the fourth quarter. We believe that the restructuring charges related to our Industrial segment are principally behind us now, we continue to see growth and opportunities within our Nuclear segment and are continuing to improve our balance sheet and liquidity position. This improvement was furthered during the first quarter of 2005 with the renewal of our revolving credit, term loan and security agreement, and extension to May 2008, which included a reduction in our interest rate and an increase in our term loan. As we move into 2005, two of our more important challenges will be the effective execution of the Industrial segment business plan and strategy, now that the structure is in place and the restructuring has been completed, and the continued growth and expansion of our Nuclear segment, which may include new markets, new contracts or partnering arrangements. We will continue to focus on improving our balance sheet, paying down debt, which includes the completion of the PNC debt extension and improving our liquidity position, which includes the selling or alternative use of the Michigan facility and receipt of proceeds from our Michigan insurance claims.

## **Results of Operations**

The reporting of financial results and pertinent discussions are tailored to three reportable segments: Industrial Waste Management Services ("Industrial"), Nuclear Waste Management Services ("Nuclear") and Consulting Engineering Services ("Engineering").

Below are the results of operations for our years ended December 31, 2004, 2003, and 2002 (amounts in thousands:

(Consolidated)	2004	%	2003	%	2002	%
Net Revenues	\$ 83,373	100.0	\$ 79,153	100.0	\$ 77,778	100.0
Cost of goods sold	59,523	71.4	54,041	68.3	54,875	70.6
Gross Profit	23,850	28.6	25,112	31.7	22,903	29.4
Selling, general and administrative	18,702	22.4	17,527	22.1	16,603	21.3
Loss (gain) on disposal or impairment o	f					
fixed assets	994	1.2	(4)		19	
Impairment loss on intangible assets	9,002	10.8				—
Income (loss) from operations	(4,848)	(5.8)	7,589	9.6	6,281	8.1
Interest expense	(2,020)	(2.4)	(2,804)	(3.5)	(2,842)	(3.7)
Interest expense – financing fees	(2,191)	(2.6)	(1,070)	(1.4)	(1,044)	(1.3)
Other	(492)	(.6)	(79)	(.1)	266	3
Income loss from continuing operations	(9,548)	(11.4)	3,644	4.6	2,677	3.4
Preferred Stock dividends	(190)	(.2)	(189)	(.2)	(158)	(.2)

# **Summary - Years Ended December 31, 2004 and 2003**

### Net Revenue

Consolidated revenues increased for the year ended December 31, 2004, compared to the year ended December 31, 2003, as follows:

		%			%			%
(In thousands)	2004	Revenue		2003	Revenue		Change	Change
Nuclear								
Government waste	\$ 16,533	19.8	\$	13,739	17.4	\$	2,794	20.3
Hazardous/Non-hazardous	3,895	4.7		3,458	4.4		437	12.6
Other nuclear waste	12,846	15.4		6,427	8.1		6,418	99.9
Bechtel Jacobs	9,405	11.3		13,794	17.4		(4,389)	(31.8)
Total	 42,679	51.2	' <u>-</u>	37,418	47.3		5,260	14.1
Industrial Revenues								
Commercial waste	23,167	27.8		26,123	33.0		(2,956)	(11.3)
Hydrolysate project		_		4,953	6.2		(4,953)	(100.0)
Government services	5,853	7.0		7,436	9.4		(1,583)	(21.3)
Acquisitions	8,470	10.2		_			8,470	100.0
Total	37,490	45.0		38,512	48.6		(1,022)	(2.7)
Engineering	3,204	3.8		3,223	4.1	_	(19)	(0.6)
Total	\$ 83,373	100.0	\$	79,153	100.0	\$	4,219	5.3

The Nuclear segment realized growth in consolidated revenues. The increase in the Nuclear segment is primarily the result of continued expansion within the mixed waste market as our facilities demonstrate their ability to accept and process more complex waste streams, including new contracts, such as a contract awarded by a Fortune 500 company in late June 2004 to treat and dispose of mixed waste from research and development activities. Government waste for the first two quarters of 2003 was negatively effected by the government's inability to ship waste to our facilities due to the war in Iraq and prolonged

terrorism alerts, which was not an obstacle during 2004. We continue to service certain of the hazardous and non-hazardous waste streams from existing industrial customers, which increased due to special event projects in 2004. Partially offsetting these increases was a decline in the Bechtel Jacobs revenue, as a result of decreased waste receipts due to certain DOE projects nearing completion, and shipment delays as they plan for new projects to begin. The Bechtel Jacobs revenue includes shipments received under the Oak Ridge contracts. See "Known Trends and Uncertainties - Significant Contracts" of this Management's Discussion and Analysis. The backlog of stored waste within the Nuclear segment at December 31, 2004, was approximately \$16,247,000, compared to \$5,782,000 at December 31, 2003. This increase in backlog reflects the increased shipments of mixed waste coming into the facilities during the fourth quarter which has traditionally not been the trend, and the increased price per container, as a result of the nature of such waste received. This increased backlog should position the Nuclear segment well, from a processing revenue perspective, for the first quarter of 2005. The principal offset to the increase in Nuclear segment revenues was a decrease from the Industrial segment, as well as, a small decrease in the Engineering segment. The primary decrease in the Industrial segment was due to the Army's Newport Hydrolysate project, in 2003, which was not repeated in 2004. The remaining decrease is attributable to the continued restructuring including the strategic decision to eliminate low margin broker business and replace it with higher margin generator direct revenue and a reduction in government business resulting from contract expirations. Partially offsetting the decrease within the Industrial segment was revenue contributed by two facilities acquired as of March 23, 2004. See "Acquisitions" in this Management's Discussion and Analysis for further information on the acquired facilities.

Cost of Goods Sold
Cost of goods sold increased for the year ended December 31, 2004, compared to the year ended December 31, 2003, as follows:

		%		%		%
(In thousands)	2004	Revenue	2003	Revenue	Change	Change
Nuclear	\$ 25,937	60.8	\$ 22,382	59.8	\$ 3,555	15.9
Industrial	31,194	83.2	29,515	76.6	1,679	5.7
Engineering	2,392	74.7	 2,144	66.5	 248	11.6
Total	\$ 59,523	71.4	\$ 54,041	68.3	\$ 5,482	10.1

The increase in cost of goods sold was present in all three segments. The Nuclear segment increase principally correlates to the additional revenues, as well as, an increase in disposal rates due to the waste mix. The increase in the Industrial segment predominantly relates to additional costs associated with the revenue generated from the two facilities acquired, as of March 23, 2004, and added operating costs incurred as this segment completes its restructuring and integration efforts. Partially offsetting this increase is the reduction in costs from 2003 due to the Army's Newport Hydrolysate project, not repeated in 2004, which carried significantly lower costs than the replacement revenue from the acquired facilities. The Engineering segment accounted for the remaining increase experiencing higher payroll and other direct costs for projects completed this year. Included within cost of goods sold is depreciation and amortization expense of \$4,344,000 and \$3,969,000 for the year ended December 31, 2004 and 2003, respectively, reflecting an increase of \$375,000 over 2003, of which \$264,000 was a result of the acquired facilities.

*Gross Profit*Gross profit for the year ended December 31, 2004, decreased over 2003, as follows:

		%		%		%
(In thousands)	2004	Revenue	2003	Revenue	Change	Change
Nuclear	\$ 16,742	39.2	\$ 15,036	40.2	\$ 1,706	11.3
Industrial	6,296	16.8	8,997	23.4	(2,701)	(30.0)
Engineering	812	25.3	 1,079	33.5	(267)	(24.7)
Total	\$ 23,850	28.6	\$ 25,112	31.7	\$ (1,262)	(5.0)

The resulting gross profit decrease is attributable to the decline in the Industrial segment slightly aided by the Engineering segment. However, the decline in the gross profit percentage was experienced across all segments with the major decrease occurring in the Industrial segment. This segment's decrease is principally a result of the reduction in gross profit from the elimination of the Army's Newport Hydrolysate project, a higher margin contract, in 2003, and fixed costs of operating the facilities spread over reduced revenues, due in part to the restructuring. The addition of the March 2004, acquisitions partially offset the decrease. The decrease in gross profit percentage in the Engineering segment is a result of lower margin projects in 2004 compared to 2003.

### Selling, General and Administrative

Selling, general and administrative ("SG&A") expenses increased for the year ended December 31, 2004, as compared to the corresponding period for 2003, as follows:

		%		%		%
(In thousands)	2004	Revenue	2003	Revenue	Change	Change
Administrative	\$ 4,199	_	\$ 3,085		\$ 1,112	36.0
Nuclear	6,238	14.6	5,806	15.5	434	7.5
Industrial	7,815	20.1	8,027	20.8	(212)	(2.6)
Engineering	450	14.0	 609	18.9	(159)	(26.1)
Total	\$ 18,702	22.4	\$ 17,527	22.1	\$ 1,175	6.7

The increase in SG&A expenses predominately relates to corporate administrative expense, which include third party charges of \$446,000 incurred for the compliance work performed with regard to Sarbanes Oxley and the related internal control assessment required under Section 404 of the Act. We anticipate the third party consulting fees related to Section 404 to decline slightly in 2005, as we have documented deficiencies and are focused on the successful remediation. Also, additional payroll related expenses to build stronger infrastructures within the Corporate office and the Nuclear segment, were incurred during the year, a trend that is anticipated to continue into 2005. Partially offsetting these increases were decreases realized by both the Industrial and Engineering segments. These reductions were achieved due to lower payroll and related expenses, with the decrease in the Industrial segment primarily due to the restructuring of the segment. Partially offsetting the decrease within the Industrial segment were the additional expenses related to the two facilities acquired, effective March 23, 2004. Also adding to the partial offset were expenses of \$458,000 for analytical and defense fees related to the Title V air issues at one Industrial facility and additional remediation requirements needed at two other facilities. Included in SG&A expenses is depreciation and amortization expense of \$287,000 and \$268,000 for the years ended December 31, 2004 and 2003, respectively.

# Loss (Gain) on Disposal/Impairment of Fixed Assets

The loss on fixed asset disposal/impairment for the year ended December 31, 2004, was \$994,000, as compared to a gain of \$4,000 for the same period in 2003. This loss is principally a result of the Industrial segment writing down certain fixed assets, totaling \$1,026,000, which have been determined to

have no fair value. As part of the restructuring process, management abandoned various projects at certain facilities.

### Impairment Loss on Intangible Assets

In conjunction with our annual intangible asset impairment test, pursuant to Statement of Financial Accounting Standards 142 *Goodwill and Other Intangible Assets* ("SFAS 142"), and the discontinuation of our operations at our Industrial facility in Michigan, we engaged a third party appraisal firm to test goodwill and permits separately for impairment, as of October 1, 2004. The impairment test showed an impairment of indefinite life intangible assets in our Industrial segment. As such, the appraisal firm tested all assets of our Industrial segment to determine the recognized impairment to our assets. The resulting impairment to our goodwill and permits, of our Industrial segment is \$4,886,000 and \$4,116,000, respectively. During the third quarter we recorded an estimated impairment of \$7,101,000 for both goodwill and permits, based on a preliminary third party impairment test, with the final impairment test resulting in an additional impairment of \$1,901,000 for both goodwill and permits. The additional impairment included \$972,000 due principally to increased appraised values of our fixed assets. Additionally, the original impairment amount of \$929,000 allocated to our discontinued operation, PFMI was reclassified to the impairment loss on intangible assets in continuing operations of the Industrial segment due to the negative value we ultimately determined PFMI to have when we refined our estimate.

### Interest Expense

Interest expense decreased for the year ended December 31, 2004, as compared to the corresponding period of 2003.

(In thousands)	2004		2003	Change	%
PNC interest	\$ 789	\$	967	\$ (178)	(18.4)
AMI/BEC	506		759	(253)	(33.3)
Other	725		1,078	(353)	(32.7)
Total	\$ 2,020	\$	2,804	\$ (784)	(27.9)

This decrease reflects lower borrowing levels on our PNC revolving credit and term loan resulting from improved cash flows from operations and scheduled repayments on the term loan. In addition, during March 2004, we received proceeds related to the private placement that were used to temporarily reduce the revolver, which resulted in a further reduction in PNC interest expense. Subsequently, in August 2004, we reborrowed certain of the private placements funds from the revolver to prepay in full the AMI/BEC 13.5% Senior Subordinated Debt. We also experienced a decrease in interest expense due to the final repayment of debt associated with our 1999 acquisitions, an adjustment to the interest payable associated with the PDC and IRS notes, which totaled \$219,000, and from the final repayment of debt to various other sources as our overall debt position continues to improve.

### *Interest Expense - Financing Fees*

Interest expense-financing fees increased approximately \$1,121,000 for the year ended December 31, 2004, as compared to the corresponding period of 2003. This increase was principally due to the write-off of \$1,217,000 of prepaid financing fees and debt discount associated with the early termination of senior subordinated notes, which were paid in full in August 2004, offset by the savings realized throughout the remainder of the year due to no longer amortizing these costs. The acceleration of expense due to the early termination subsequently resulted in increased Interest Expense – Financing fees associated with the senior subordinated debt totaling \$974,000. Additionally, we expensed an early termination fee of \$190,000 paid as a result of the pre-payment. Offsetting this increase was a one-time fee associated with other short term financing of \$45,000 which was written off in March 2003. These financing fees are principally associated with the PNC revolving credit and term loan and the senior subordinated notes, and are amortized to expense over the term of the loan agreements. As of December

31, 2004, the unamortized balance of prepaid financing fees is \$440,000, which will be amortized to expense at the rate of approximately \$37,000 per month during 2005.

### Other Expense

Other expense increased for the year ended December 31, 2004, as compared to the same period of 2003, as follows:

(In thousands)		2004		2003		Change	
Environmental issues	\$	259	\$	_	\$	259	
Royalty settlement		225				225	
Other		8		79		(71)	
Total	\$	492	\$	79	\$	413	

The increase in other expense was primarily due to environmental issues related to the settlement of two, potentially responsible party, "PRP" claims against certain of our Industrial segment facilities, regarding waste shipped to these superfund sites prior to our acquisition of these Industrial segment facilities. Additionally, other expense increased due to a royalty settlement related to the method of calculation utilized in determining the monthly royalty to the previous owner of one of the Industrial segment facilities.

### Income Tax

See Note 11 to Notes to Consolidated Financial Statements for a reconciliation between the expected tax benefit and the provision for income taxes as reported. For the years ended December 31, 2004 and 2003, we had no federal income tax expense, and as such no provision for income tax, due to utilization of our net operating loss carry-forward and permanent and temporary book-tax timing differences.

# Preferred Stock Dividends

Preferred Stock dividends remained relatively constant at approximately \$189,000 and \$190,000 for the years ended December 31, 2004, and December 31, 2003, respectively. The Preferred dividends are comprised of approximately \$125,000 in dividends from our Series 17 Preferred Stock, and \$64,000 from the accrual of preferred dividends on the Preferred Stock of our subsidiary, M&EC.

## Summary - Years Ended December 31, 2003 and 2002

### Net Revenue

The year 2003 started out slow, as nuclear revenues were negatively impacted by the war and terrorism alerts, and industrial revenues were negatively impacted by the economy. However, nuclear shipments increased late in the third quarter and we successfully completed the treatability portion of the Army's Newport hydrolysate project. We continued with the reorganization and refocus of the Industrial segment throughout the last half of 2003. Consolidated revenues increased \$1,375,000 or 1.8% for the year ended December 31, 2003, compared to the year ended December 31, 2002. This increase is attributable to an increase in the Industrial segment of approximately \$6,497,000 resulting from certain new product lines, such as lab packing, improved waste volumes and approximately \$4.9 million in revenues recognized for public outreach and treatability studies related to the Army's Newport hydrolysate project, which was terminated in the fourth quarter of 2003 for convenience. Offsetting this increase was a decrease in the Nuclear segment of approximately \$4,842,000 resulting partially from a change in accounting estimate for revenue recognition. (See Note 2 to Notes to Consolidated Financial Statements.) The impact of this change in nuclear revenue recognition as of December 31, 2003 is a deferral of revenues of approximately \$2,765,000. The decrease is also a result of the government's reduced shipment of waste to our facilities during the first six months of 2003 due to the war and ongoing campaign in Iraq and prolonged terrorism alerts. The decrease can further be explained by the impact of increased revenues during 2002, which included an event project of approximately \$2.4 million and a surcharge of approximately \$2.2 million.

These decreases were partially offset by continued expansion within the mixed waste market as our facilities demonstrate the ability to accept and process more complex waste streams, thus increasing sales volumes. Consolidated revenues with Bechtel Jacobs Company, which includes the Oak Ridge contracts totaled \$13,139,000 or 15.5% of total revenues for the year ending December 31, 2003, compared to \$9,664,000 or 11.6% for the year ended December 31, 2002. This increase reflects additional revenues under the Oak Ridge contracts and an additional contract entered into recently with Bechtel Jacobs, due in part to the benefit of our facility being located within the DOE K-25 site. See "Known Trends and Uncertainties-Significant Contracts" of this Management's Discussion and Analysis as to a lawsuit involving the Oak Ridge contracts. The backlog of stored waste within the Nuclear segment at December 31, 2003, was approximately \$5,782,000, compared to \$9,000,000 at December 31, 2002. Additionally, the Consulting Engineering Services segment experienced a decrease of approximately \$280,000, which reflects the impact a weaker economy has on our client's expansion projects in 2003 and certain one-time projects completed in 2002.

### Cost of Goods Sold

Cost of goods sold decreased \$834,000, or 1.5% for the year ended December 31, 2003, compared to the year ended December 31, 2002. This decrease in cost of goods sold principally reflects a decrease in the Nuclear segment of \$3,975,000 indicative of a reduction in disposal and processing costs associated with the continued refinement of our treatment processes. The initial focus within the Nuclear segment was the demonstration of our processing capabilities, which was followed by the refinement and enhancement of our processes throughout 2003. The remaining decrease in this segment was due to the deferral of disposed expenses that correlates with the deferral of revenues as a result of our change in accounting estimate for revenue recognition. Additionally, the Consulting Engineering Services segment experienced a decrease of \$155,000, which was primarily a result of the corresponding revenue reduction, despite a 0.9% cost increase. Mainly offsetting these decreases was an increase in the Industrial segment of approximately \$3,296,000, primarily associated with increased labor and material costs, which relates to the increase in revenues, including the expenses associated with the Army's Newport hydrolysate project. Depreciation expense of \$3,969,000 and \$3,469,000 for the years ended December 31, 2003 and 2002, respectively, is included in cost of goods sold, which reflects an increase of \$500,000 over 2002. During 2002, we purchased capital equipment which totaled approximately \$5.8 million, a majority of which related to our continued expansion of the Nuclear segment. These projects were principally completed in the fourth quarter of 2002 and resulted in additional depreciation in 2003.

### Gross Profit

Gross profit for the year ended December 31, 2003, increased to \$25,112,000, which as a percentage of revenue is 31.7%, reflecting an increase over the 2002 percent of revenue of 29.4%. This increase in gross profit percentage principally reflects an increase in the Industrial segment from 18.1% in 2002 to 23.4% in 2003. This increase reflects the impact of margins of approximately \$2.8 million recognized on the Army's Newport hydrolysate project. During the last half of 2003, the Industrial segment restructured its management, implemented a cost savings initiative and made certain operational changes, which had only a limited impact on 2003. Additionally, the increase in the gross profit percentage was attributable to the Nuclear segment, which rose from 37.6% in 2002 to 40.2% in 2003, reflecting mainly the favorable product mix, surcharges and operational improvements within the mixed waste processing lines. The 2002 margins were positively impacted by the effect of the \$2.2 million surcharge related to the Oak Ridge contracts. Without the surcharge, the gross profit percentage for this segment for 2002 would have been 27.3%. Offsetting these increases was a decrease in the Consulting Engineering Services segment, which fell from 34.4% in 2002 to 33.5% in 2003, reflecting the net impact of lower margin projects performed over the year.

### Selling, General and Administrative

Selling, general and administrative ("SG&A") expenses increased \$924,000 or 5.6% for the year ended December 31, 2003, as compared to the corresponding period for 2002. This increase reflects the additional sales and marketing expenses within the Industrial segment, somewhat offset by a decline in payroll and related marketing expenses for the Nuclear segment, which combined accounted for \$602,000 of this increase. Administrative payroll and related expenses accounted for \$611,000 of this increase, mainly reflecting the management infrastructure, relocation and severance costs within the Industrial segment as we complete our restructuring, all of which have been expensed during the year, along with increased administrative support within the Nuclear segment. Partially offsetting these administrative payroll increases was a \$273,000 decrease in other administrative expenses, primarily attributable to a net decrease in general expense of \$476,000, arising mainly from the reduction in bad debt expense and a \$319,000 increase in outside services for the same period of 2002. Depreciation and amortization expense included within selling, general and administrative expenses was \$268,000 and \$269,000 for the years ended 2003 and 2002, respectively. As a percentage of revenue, selling, general and administrative expenses increased to 22.1% for the year ended December 31, 2003, compared to 21.3% for the same period of 2002.

### Interest Expense

Interest expense decreased approximately \$38,000 for the year ended December 31, 2003, as compared to the corresponding period of 2002. This decrease reflects the impact of the reduction in debt associated with past acquisitions resulting in a decrease in interest expense of \$30,000 when compared to prior year. Additionally, this decrease reflects the impact of lower interest rates on the revolving credit and term loans with PNC and decreased borrowing levels on the term loan with PNC partially offset by increased borrowings under the revolving credit to fund the finite risk insurance program, which resulted in a net decrease of \$46,000. Offsetting these decreases was an increase in interest expense of \$38,000 associated with an increase in additional debt entered into during the year, related to facility and computer upgrades.

### *Interest Expense - Financing Fees*

Interest expense-financing fees increased approximately \$26,000 for the year ended December 31, 2003, as compared to the corresponding period of 2002. This increase was principally due to a one-time charge of fees associated with other short term financing.

### Other Expense

Other expense increased by \$345,000 for the year ended December 31, 2003, as compared to the same period of 2002. This increase was primarily due to a workers' compensation insurance adjustment of \$217,000 related to a prior acquisition.

### Income Tax

See Note 10 to Notes to Consolidated Financial Statements for a reconciliation between the expected tax benefit and the provision for income taxes as reported. For the years ended December 31, 2003 and 2002, we had no federal income tax expense, and as such no provision for income tax, due to utilization of our net operating loss carry-forward and permanent and temporary book-tax timing differences.

### Preferred Stock Dividends

Preferred Stock dividends increased approximately \$31,000 for the year ended December 31, 2003, as compared to the year ended December 31, 2002. This increase is due to the accrual of preferred dividends on the Series B Preferred, issued in conjunction with the acquisition of M&EC, which began accruing in July 2002.

### **Discontinued Operation**

On October 4, 2004, our Board of Directors approved the discontinuation of operations at the facility in Detroit, Michigan, owned by our subsidiary, Perma-Fix of Michigan, Inc. ("PFMI"). The decision to discontinue operations at PFMI was principally a result of two fires that significantly disrupted operations

at the facility in 2003, and the facility's continued drain on the financial resources of our Industrial segment. We are in the process of remediating the facility and evaluating our available options for future use or sale of the property. The operating activities for the current and prior periods have been reclassified to discontinued operations in our Consolidated Statements of Operations.

PFMI recorded revenues of \$1,569,000 and \$5,739,000, and operating losses of \$635,000 and \$526,000 for the years ended December 31, 2004, and 2003, respectively. We have submitted three insurance claims relative to the two fires at PFMI, a property claim for the first fire and a property claim and business interruption claim for the second fire. During the fourth quarter, we finalized our negotiations with the insurance carrier on the business interruption claim and recorded an additional \$1,130,000 receivable, an increase to the previous receivable amount of \$455,000. The income from recording this additional receivable was recorded against "loss from discontinued operations" and reduced the operating losses for 2004.

Our estimated loss on disposal of discontinued operations of \$9,178,000 for the year ended December 31, 2004, consisted of asset impairments, pension costs, environmental remediation and other expenses. We recorded a \$1,474,000 pension withdrawal liability at September 30, 2004, based upon a withdrawal letter received from Central States Pension Fund, resulting from the termination of substantially all of the union employees at PFMI. The estimated calculation contained within the withdrawal letter was based upon a 2004 withdrawal date. We subsequently engaged an actuarial firm to confirm and update the calculation through December 31, 2004. Based upon this actuarial study, we increased the pension withdrawal liability to \$1,680,000 at December 31, 2004. This withdrawal liability represents our best estimate, and is subject to numerous factors such as the date and timing of union employee terminations, partial versus complete termination status, the pension fund's unfunded vested benefit liability and PFMI's portion of such liability. Additionally, we recorded accruals for additional environmental closure and remediation costs of \$2,373,000, severance and other payroll related costs of \$256,000 and miscellaneous costs of \$236,000, which includes insurance expenses, and legal fees. We recorded a non-cash tangible asset impairment of \$4,633,000. The tangible asset impairment is a write down of tangible assets to our estimate of fair value at the time of discontinuing operations. The environmental closure and remediation accrual is based on our best estimate at the time of this report and could change as a result of state mandated cleanup standards which we would be required to meet and the related remediation efforts required. During the third quarter of 2004, we allocated an intangible asset impairment of \$929,000 based on the value of PFMI compared to the remainder of the Industrial segment, pursuant to preliminary third party appraisals. Upon completion of the final SFAS 142 impairment test, as of October 1, 2004, the third party appraisers determined the value of PFMI was negative at that time, and as such no goodwill or permits were allocable to PFMI to be impaired. Therefore, during the fourth quarter we reclassified the \$929,000 impairment of intangible assets from discontinued operations to the Industrial segment as an impairment of continuing operations.

Assets and liabilities related to the discontinued operation have been reclassified to separate categories in the Consolidated Balance Sheets as of December 31, 2004 and December 31, 2003. As of December 31, 2004, assets are recorded at their net realizable value, and consist of property and equipment of \$600,000, accounts receivable of \$24,000, and insurance proceeds receivable of \$1,585,000. The insurance receivable, as discussed above, represents the business interruption costs from the second fire at PFMI. We are currently negotiating settlements for the remaining claims, but at this time we cannot estimate the additional actual proceeds to be received. Additional proceeds, if any, received on these remaining claims, will be recorded as income from discontinued operations. Liabilities as of December 31, 2004, consist of accounts payable and current accruals of \$326,000, the pension withdrawal liability of \$1,680,000, and environmental and closure accruals of \$2,348,000.

### **Liquidity and Capital Resources**

Our capital requirements consist of general working capital needs, scheduled principal payments on our debt obligations and capital leases, remediation projects and planned capital expenditures. Our capital resources consist primarily of cash generated from operations, funds available under our revolving credit facility and proceeds from issuance of our Common Stock. Our capital resources are impacted by changes in accounts receivable as a result of revenue fluctuation, economic trends, collection activities, and the profitability of the segments.

At December 31, 2004, we had cash of \$215,000. The following table reflects the cash flow activities during 2004.

(Amounts in thousands)	2004
Cash provided by operations	\$ 6,897
Cash used in investing activities	(6,754)
Cash used in financing activities	 (339)
Decrease in cash	\$ (196)

We are in a net borrowing position and therefore attempt to move all excess cash balances immediately to the revolving credit facility, so as to reduce debt and interest expense. We utilize a centralized cash management system, which includes remittance lock boxes and is structured to accelerate collection activities and reduced cash balances, as idle cash is moved without delay to the revolving credit facility. The cash balance at December 31, 2004, primarily represents payroll account fundings which were not withdrawn until after year-end.

### Operating Activities

Accounts Receivable, net of allowances for doubtful accounts, totaled \$27,192,000, an increase of \$3,616,000 over the December 31, 2003, balance of \$23,576,000. This increase principally reflects the impact of additional accounts receivable of \$2,331,000 as a result of our activities from the two Industrial facilities acquired in 2004, as discussed below. Additionally, the Nuclear segment experienced an increase of \$2,433,000 as a result of the increase in revenues in the fourth quarter when compared to prior year and the complexity involved with government accounts which require a greater amount of documentation that results in delays in the collection of these receivables. The Engineering segment also experienced an increase of \$107,000. Offsetting these increases, was a decrease in the accounts receivable from the Industrial segment of \$1,076,000 after excluding the impact of the acquisitions mentioned above. This decrease primarily resulted from the reduction in government business resulting from contract expirations and the Army's Newport Hydrolysate project, in 2003, which was not repeated in 2004.

As of December 31, 2004, total consolidated accounts payable was \$6,529,000, an increase of \$1,011,000 from the December 31, 2003, balance of \$5,518,000. This increase in accounts payable reflects the activities of the two Industrial facilities acquired in 2004, which resulted in an increase of \$661,000. Accounts payable also increased due to additional operating expenses associated with revenues from the Nuclear segment during the fourth quarter. Additionally, accounts payable increased as we continue to fund capital expenditures through the use of working capital.

Accrued Expenses as of December 31, 2004, totaled \$12,100,000, an increase of \$962,000 over the December 31, 2003, balance of \$11,138,000. Accrued expenses are made up of disposal and processing cost accrueds, accrued compensation, interest payable, insurance payable and certain tax accruels. The increase to accrued expenses was principally a result of the expenses accrued for environmental issues totaling \$717,000, which include additional accrued analytical and defense fees associated with the Title V air issues at one of the Industrial segment facilities, PRP issues primarily related to superfund settlements at two of our Industrial segment facilities and other environmental reserves. Additionally, we

accrued for royalty settlements related to the method of calculation utilized in determining the monthly operating royalty to the previous owner of one of the Industrial segment facilities, totaling \$225,000. Also impacting this increase were the accrued operating expenses associated with the acquisitions in March 2004, which resulted in an increase of \$500,000. Offsetting these increases was a decrease in Accrued Expenses of \$480,000 primarily as a result of decrease accrued disposal and accrued processing costs within the Nuclear segment.

The working capital deficit at December 31, 2004, was \$497,000, as compared to a working capital position of \$4,159,000 at December 31, 2003. The decrease in this position of \$4,656,000 is principally a result of the increased current portion of our long-term debt. In the third and fourth quarters, we increased the current portion of long-term debt by \$4.1 million associated with the DSSI and M&EC acquisitions, the largest portion of which is the reclass of the \$3.5 million Unsecured Promissory Note which is due in full on August 31, 2005. Additionally, our working capital position experienced the negative impact of the recording of certain liabilities associated with discontinued operations. While our working capital position ended in a deficit position at year end, we greatly improved our overall debt position due in large part to the prepayment of the subordinated senior debt.

### *Investing Activities*

Our purchases of new capital equipment for the twelve-month period ended December 31, 2004, totaled approximately \$3,053,000 of which \$320,000 was financed, resulting in net purchases of \$2,733,000, funded out of cash flow. These expenditures were for expansion and improvements to the operations principally within the Nuclear and Industrial segments. These capital expenditures were principally funded by the cash provided by operations, through various other lease financing sources and through Warrant and option proceeds raised during the year. We have budgeted capital expenditures of approximately \$6,000,000 for 2005, which includes an estimated \$523,000 to complete certain current projects committed at December 31, 2004, as well as other identified capital and permit compliance purchases. Certain of these budgeted projects are discretionary and may either be delayed until later in the year or deferred altogether. We have traditionally incurred actual capital spending totals for a given year less than initial budget amount. The initiation and timing of projects are also determined by financing alternatives or funds available for such capital projects. We anticipate funding these capital expenditures by a combination of lease financing, internally generated funds, and/or the proceeds received from Warrant exercises.

In June 2003, we entered into a 25-year finite risk insurance policy, which provides financial assurance to the applicable states for our permitted facilities in the event of unforeseen closure. Prior to obtaining or renewing operating permits we are required to provide financial assurance that guarantees to the states that in the event of closure of our permitted facilities will be closed in accordance with the regulations. The policy provides \$35 million of financial assurance coverage of which the coverage amount totals \$27,932,000 at December 31, 2004, and has available capacity to allow for annual inflation and other performance and surety bond requirements. This finite risk insurance policy required an upfront payment of \$4.0 million, of which \$2,766,000 represents the full premium for the 25-year term of the policy, and the remaining \$1,234,000, to be deposited in a sinking fund account representing a restricted cash account. Additionally, in February 2004, we paid the first of nine required annual installments of \$1,004,000, of which \$991,000 was deposited in the sinking fund account, the remaining \$13,000 represents a terrorism premium. As of December 31, 2004, we have recorded \$2,225,000 in our sinking fund on the balance sheet. On the fourth and subsequent anniversaries of the contract inception, we may elect to terminate this contract. If we so elect, the Insurer will pay us an amount equal to 100% of the sinking fund account balance in return for complete releases of liability from both us and any applicable regulatory agency using this policy as an instrument to comply with financial assurance requirements.

On March 23, 2004, our subsidiary, PFMD completed it's acquisition of certain assets of A&A and our subsidiary, PFP completed its acquisition of certain assets of EMAX. We paid \$2,915,000 in cash for the acquired assets and assumed liabilities of A&A and EMAX, using funds received in connection with the

private placement discussed below, under financing activities. A&A and EMAX had unaudited combined revenues of approximately \$15.0 million in 2003 and a combined loss of approximately \$299,000.

### Financing Activities

On December 22, 2000, we entered into a Revolving Credit, Term Loan and Security Agreement ("Agreement") with PNC Bank, National Association, a national banking association ("PNC") acting as agent ("Agent") for lenders, and as issuing bank. The Agreement provides for a term loan ("Term Loan") in the amount of \$7,000,000, which requires principal repayments based upon a seven-year amortization, payable over five years, with monthly installments of \$83,000 and the remaining unpaid principal balance due on December 22, 2005. The Agreement also provided for a revolving line of credit ("Revolving Credit") with a maximum principal amount outstanding at any one time of \$18,000,000, as amended. The Revolving Credit advances are subject to limitations of an amount up to the sum of (a) up to 85% of Commercial Receivables aged 90 days or less from invoice date, (b) up to 85% of Commercial Broker Receivables aged up to 120 days from invoice date, (c) up to 85% of acceptable Government Agency Receivables aged up to 150 days from invoice date, and (d) up to 50% of acceptable unbilled amounts aged up to 60 days, less (e) reserves Agent reasonably deems proper and necessary. The Revolving Credit advances shall be due and payable in full on December 22, 2005. As of December 31, 2004, the excess availability under our Revolving Credit was \$8,516,000 based on our eligible receivables.

Pursuant to the Agreement the Term Loan bears interest at a floating rate equal to the prime rate plus  $1\frac{1}{2}$ %, and the Revolving Credit at a floating rate equal to the prime rate plus 1%. The loans are subject to a prepayment fee of  $1\frac{1}{2}$ % in the first year, 1% in the second and third years and 3%4 % after the third anniversary until termination date.

On March 15, 2005, the Company entered into a commitment letter with PNC, whereby PNC agreed to renew and extend the agreement, and to increase the term loan back up to \$7.0 million. Effective March 25, 2005, the Company and PNC entered into an amended agreement (Amendment No. 4), which, among other things, extends the \$25 million credit facility through May 31, 2008. The credit facility consists of an \$18 million revolving line of credit and a \$7 million term loan. The terms of the credit facility remain principally unchanged, with the exception of a 50 basis point reduction in the variable interest rate on both loans. The increase to the term loan will be handled as a subsequent amendment, subject to the updating of the existing mortgages held by PNC. We expect the mortgage updates to be completed in April, with proceeds of approximately \$4.0 million to be received shortly thereafter. As a condition of this amended agreement, we paid a \$140,000 fee to PNC.

Pursuant to the terms of the Stock Purchase Agreements in connection with the acquisition of Perma-Fix of Orlando, Inc. ("PFO"), Perma-Fix of South Georgia, Inc. ("PFSG") and Perma-Fix of Michigan, Inc. ("PFMI"), a portion of the consideration was paid in the form of the Promissory Notes, in the aggregate amount of \$4,700,000 payable to the former owners of PFO, PFSG and PFMI. The Promissory Notes were paid in full in June 2004.

On August 31, 2000, as part of the consideration for the purchase of Diversified Scientific Services, Inc. ("DSSI"), we issued to Waste Management Holdings a long-term unsecured promissory note (the "Unsecured Promissory Note") in the aggregate principal amount of \$3,500,000, bearing interest at a rate of 7% per annum and having a five-year term with interest to be paid annually and principal due in one lump sum at the end of the term of the Unsecured Promissory Note (August 2005). This debt balance was reclassed in its entirety from long term to current in the third quarter of 2004. We plan to utilize the proceeds of the amended agreement with PNC, mentioned above, to repay this note prior to its August 2005 expiration date.

On July 31, 2001, we issued approximately \$5.6 million of its 13.50% Senior Subordinated Notes due July 31, 2006 (the "Notes"). The Notes were issued pursuant to the terms of a Note and Warrant Purchase Agreement dated July 31, 2001 (the "Purchase Agreement"), between us, Associated Mezzanine Investors - PESI, L.P. ("AMI"), and Bridge East Capital, L.P. ("BEC"). The Notes are unsecured and are unconditionally guaranteed by our subsidiaries. The Notes were paid in full in August 2004. We also paid early termination fees of \$190,000 and recorded a non-cash expense of \$1,217,000 for the write-off of prepaid financing fees and a debt discount.

Under the terms of the Purchase Agreement, we also issued to AMI and BEC Warrants to purchase up to 1,281,731 shares of our Common Stock ("Warrant Shares") at an initial exercise price of \$1.50 per share (the "Warrants"), subject to adjustment under certain conditions, which were valued at \$1,622,000. The Warrants, as issued, also contain a cashless exercise provision. The Warrant Shares are registered under an S-3 Registration Statement that was declared effective on November 27, 2002.

In conjunction with our acquisition of M&EC, M&EC issued a promissory note for a principal amount of \$3.7 million to Performance Development Corporation ("PDC"), dated June 25, 2001, for monies advanced to M&EC for certain services performed by PDC. The promissory note is payable over eight years on a semiannual basis on June 30 and December 31. The principal repayments for 2005 will be approximately \$400,000 semiannually. Interest is accrued at the applicable law rate ("Applicable Rate") pursuant to the provisions of section 6621 of the Internal Revenue Code of 1986 as amended. (7% on December 31, 2004) and payable in one lump sum at the end of the loan period. On December 31, 2004, the outstanding balance was \$4,099,000 including accrued interest of approximately \$1,065,000. PDC has directed M&EC to make all payments under the promissory note directly to the IRS to be applied to PDC's obligations under its installment agreement with the IRS.

Additionally, M&EC entered into an installment agreement with the Internal Revenue Service ("IRS") for a principal amount of \$923,000 effective June 25, 2001, for certain withholding taxes owed by M&EC. The installment agreement is payable over eight years on a semiannual basis on June 30 and December 31. The principal repayments for 2005 will be approximately \$100,000 semiannually. Interest is accrued at the Applicable Rate, and is adjusted on a quarterly basis and payable in lump sum at the end of the installment period. On December 31, 2004, the rate was 7%. On December 31, 2004, the outstanding balance was \$1,010,000 including accrued interest of approximately \$257,000.

On March 22, 2004, we completed a private placement for gross proceeds of approximately \$10,386,000 through the sale of 4,616,113 shares of our Common Stock at \$2.25 per share and Warrants to purchase an additional 1,615,638 shares of our Common Stock exercisable at \$2.92 per share and a term of three years. The private placement was sold to fifteen accredited investors. The net cash proceeds received of \$9,870,000, after paying placement agent fees, and other related expenses, were used in connection with the acquisitions of certain acquired assets of A&A and EMAX discussed above, and to pay down the Revolving Credit. We subsequently reborrowed the private placement funds from the revolving credit facility in August 2004, and prepaid the higher interest, 13.5% Notes, as discussed above. We also issued Warrants to purchase an aggregate of 160,000 shares of our Common Stock, exercisable at \$2.92 per share and with a three year term, for consulting services related to the private placement.

During 2004, Capital Bank Grawe Gruppe, AG ("Capital Bank") exercised three of its outstanding warrants and a portion of two other warrants to purchase an aggregate of 329,262 shares of our Common Stock at a total exercise price of approximately \$625,000. Additionally, various other investors exercised Warrants to purchase 86,787 shares of our Common Stock, of which 36,787 shares were issued on a cashless basis, and proceeds of \$85,000 were received for the remaining shares. Holders of certain outstanding options exercised their options to purchase 196,940 shares of our Common Stock for an aggregate purchase price of approximately \$257,000. The Warrants and options were exercised in accordance with the terms of their respective documents. The proceeds of the Warrant and options exercise were used to fund capital expenditures and current working capital needs.

We have outstanding 2,500 shares of Preferred Stock, with each share having a liquidation preference of \$1,000 ("Liquidation Value"). Annual dividends on the Preferred Stock are 5% of the Liquidation Value. Dividends on the Preferred Stock are cumulative, and are payable, if and when declared by our Board of Directors, on a semiannual basis. Dividends on the outstanding Preferred Stock may be paid at our option, if declared by the Board of Directors, in cash or in shares of our Common Stock as described under Note 6 to Notes to Consolidated Financial Statements.

During 2004, accrued dividends for the period July 1, 2003, through December 31, 2003, in the amount of approximately \$63,000 were paid in February 2004, in the form of 19,643 shares of Common Stock. Dividends for the period January 1, 2004 through June 30, 2004, of approximately \$62,000 were paid in the form of 34,938 shares of Common Stock. The accrued dividends for the period July 1, 2004, through December 31, 2004, in the amount of approximately \$63,000 were paid in March 2005.

In summary, we have continued to take steps to improve our operations and liquidity, as discussed above. However, we continue to invest our working capital back into our facilities to fund capital additions within both the Nuclear and Industrial segments. We have experienced the positive impact of increased accounts receivable and increased availability under our Revolving Credit. Additionally, accounts payable have remained relatively steady through the last half of the year. Offsetting these positives was the negative impact of current reserves recorded on discontinued operations and the reclassification of long-term debt to current. The reserves recorded on discontinued operations could be reduced or paid over a longer period of time than initially anticipated. If we are unable to improve our operations and become profitable in the foreseeable future, such would have a material adverse effect on our liquidity position.

### **Contractual Obligations**

The following table summarizes our contractual obligations at December 31, 2004, and the effect such obligations are expected to have on our liquidity and cash flow in future periods, (in thousands):

		Payments due by period								
Contractual Obligations	Total		Less than 1 year		1-3 years		4-5 years		After 5 years	
Long-term debt	\$ 18,956	\$	6,376	\$	12,556	\$	24	\$	_	
Interest on long-term debt (1)	1,322		_				1,322		_	
Operating leases	3,506		1,433		2,042		31		_	
Finite risk policy (2)	8,030		1,004		3,011		2,008		2,007	
Pension withdrawal liability (3)	1,680		1,680							
Purchase obligations (4)			_						_	
Total contractual obligations	\$ 33,494	\$	10,493	\$	17,609	\$	3,385	\$	2,007	

<sup>&</sup>lt;sup>(1)</sup> Our IRS Note and PDC Note agreements state that the interest on those notes is paid at the end of the term, December 2008.

- Our finite risk insurance policy provides financial assurance guarantees to the states in the event of unforeseen closure of our permitted facilities. See Liquidity and Capital Resources Investing activities earlier in this Management's Discussion and Analysis for further discussion on our finite risk policy.
- (3) The pension withdrawal liability is the estimated liability to us upon termination of substantially all of our union employees at our discontinued operation, PFMI. See Discontinued Operation earlier in this section for discussion on our discontinued operation.

(4) We are not a party to any significant long-term service or supply contracts with respect to our processes. We refrain from entering into any long-term purchase commitments in the ordinary course of business.

### **Critical Accounting Estimates**

In preparing the consolidated financial statements in conformity with generally accepted accounting principles, management makes estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as, the reported amounts of revenues and expenses during the reporting period. We believe the following critical accounting policies affect the more significant estimates used in preparation of the consolidated financial statements:

Revenue Recognition Estimates. Effective September 1, 2003 we refined our percentage of completion methodology for purposes of revenue recognition in our Nuclear Segment. As we accept more complex waste streams in this segment, the treatment of those waste streams becomes more complicated and more time consuming. We have continued to enhance our waste tracking capabilities and systems, which has enabled us to better match the revenue earned to the processing phases achieved. The major processing phases are receipt, treatment/processing and shipment/final disposition. Upon receiving mixed waste we recognize a certain percentage (33%) of revenue as we incur costs for transportation, analytical and labor associated with the receipt of mixed wastes. As the waste is processed, shipped and disposed of we recognize the remaining 67% of revenue and the associated costs of transportation and burial. We monitor and evaluate the percentage of completion methodology utilized for the Nuclear revenue recognition on a quarterly basis, and periodically, evaluate the revenue recognition methodology utilized for the Industrial segment.

Allowance for Doubtful Accounts. The carrying amount of accounts receivable is reduced by an allowance for doubtful accounts, which is a valuation allowance that reflects management's best estimate of the amounts that are uncollectable. We regularly review all accounts receivable balances that exceed 60 days from the invoice date and based on an assessment of current credit worthiness, estimate the portion, if any, of the balance that are uncollectable. Specific accounts that are deemed to be uncollectible are reserved at 100% of their outstanding balance. The remaining balances aged over 60 days have a percentage applied by aging category (5% for balances 61-90 days, 20% for balances 91-120 days and 40% for balances over 120 days aged), based on a historical valuation, that allows us to calculate the total reserve required. This allowance was approximately 0.7%, 0.8%, and 0.8% of revenue and approximately 2.1%, 2.9%, and 3.2% of accounts receivable for 2004, 2003, and 2002, respectively. The allowance was adversely affected in 2002 due to an increase in bankruptcy filings in the industrial and manufacturing business sectors.

Intangible Assets. Intangible assets relating to acquired businesses consist primarily of the cost of purchased businesses in excess of the estimated fair value of net assets acquired ("goodwill") and the recognized permit value of the business. We continually reevaluate the propriety of the carrying amount of permits and goodwill to determine whether current events and circumstances warrant adjustments to the carrying value. Effective January 1, 2002, we adopted SFAS 142. We utilized an independent appraisal firm to test goodwill and permits, separately, for impairment. The initial report provided by the appraiser indicated that no impairment existed as of January 1, 2002. Goodwill and permits were again tested as of October 1, 2002 and October 1, 2003, and each of these tests also indicated no impairment. Our annual impairment test as of October 1, 2004, resulted in an impairment of goodwill and permits, in our Industrial segment in the amounts of \$4,886,000 and \$4,116,000, respectively, which resulted in remaining balance of Industrial segment intangible permits in the amount of \$2,370,000. Effective January 1, 2002, we discontinued amortizing indefinite life intangible assets (goodwill and permits) as required by SFAS 142. The appraisers estimated the fair value of our operating segments using a discounted cash flow valuation approach. This approach is dependent on estimates for future sales, operating income, depreciation and amortization, working capital changes, and capital expenditures, as

well as, expected growth rates for cash flows and long-term interest rates, all of which are impacted by economic conditions related to our industry as well as conditions in the U.S. capital markets.

Accrued Closure Costs. Accrued closure costs represent a contingent environmental liability to clean up a facility in the event we cease operations in an existing facility. The accrued closure costs are estimates based on guidelines developed by federal and/or state regulatory authorities under RCRA. Such costs are evaluated annually and adjusted for inflationary factors and for approved changes or expansions to the facilities. Increases due to inflationary factors for the years ended December 31, 2004, 2003, and 2002 have been approximately 1.6%, 1.1%, and 2.2%, respectively, and based on the historical information, we do not expect future inflationary changes to differ materially from the last three years. Increases or decreases in accrued closure costs resulting from changes or expansions at the facilities are determined based on specific RCRA guidelines applied to the requested change. This calculation includes certain estimates, such as disposal pricing, external labor, analytical costs and processing costs, which are based on current market conditions. However, with the exception of the Michigan facility, we have no intention, at this time, to close any of our facilities.

Accrued Environmental Liabilities. We have six remediation projects currently in progress. The current and long-term accrual amounts for the projects are our best estimates based on proposed or approved processes for clean-up. The circumstances that could affect the outcome range from new technologies that are being developed every day to reduce our overall costs, to increased contamination levels that could arise as we complete remediation which could increase our costs, neither of which we anticipate at this time. In addition, significant changes in regulations could adversely or favorably affect our costs to remediate existing sites or potential future sites, which cannot be reasonably quantified. We have also accrued long-term environmental liabilities for our recently acquired facilities, however, as these are not permitted facilities we are currently under no obligation to clean up the contamination.

Disposal Costs. We accrue for waste disposal based upon a physical count of the total waste at each facility at the end of each accounting period. Current market prices for transportation and disposal costs are applied to the end of period waste inventories to calculate the disposal accrual. Costs are calculated using current costs for disposal, but economic trends could materially affect our actual costs for disposal. As there are limited disposal sites available to us, a change in the number of available sites or an increase or decrease in demand for the existing disposal areas could significantly affect the actual disposal costs either positively or negatively.

### **Known Trends and Uncertainties**

Seasonality. Historically we have experienced reduced revenues, operating losses or decreased operating profits during the first and fourth quarters of our fiscal years due to a seasonal slowdown in operations from poor weather conditions and overall reduced activities during the holiday season and through January and February of the first quarter. During our second and third fiscal quarters there has historically been an increase in revenues and operating profits. Management expects this trend to continue in future years. As discussed above, this trend continued in 2004, but the reduction in revenues and the net loss for the first quarter 2004 was greater than we have historically experienced in prior first quarter periods as previously discussed. The DOE and DOD represent major customers for the Nuclear segment. In conjunction with the federal government's September 30 fiscal year-end, the Nuclear segment experiences seasonably large shipments during the third quarter, leading up to this government fiscal year-end, as a result of incentives and other quota requirements. Correspondingly for a period of approximately three months following September 30, the Nuclear segment is generally seasonably slow, as the governmental budgets are still being finalized, planning for the new year is occurring and we enter the holiday season.

*Economic Conditions*. Economic downturns or recessionary conditions can adversely affect the demand for our services, principally within the Industrial segment. Reductions in industrial production generally follow such economic conditions, resulting in reduced levels of waste being generated and/or sent off for

treatment. We believe that our revenues and profits were negatively affected within this segment by the recessionary conditions in 2003, and that this trend continued into 2004.

Significant Contracts. Our revenues are principally derived from numerous and varied customers. However, our Nuclear segment has a significant relationship with Bechtel Jacobs. Bechtel Jacobs is the DOE's appointed manager of the environmental program to perform certain treatment and disposal services in Oak Ridge, Tennessee. In this capacity Bechtel Jacobs entered into certain subcontracts with our Oak Ridge, Tennessee subsidiary ("M&EC"). Our revenues from Bechtel Jacobs contributed 11.3% of total consolidated revenues in the year ended December 31, 2004 and 15.5% of total consolidated revenues during the same period in 2003. The Oak Ridge contracts have been extended for a period of two years, through June 2005, with several pricing modifications, but, as with most contracts with the federal government, may be terminated or renegotiated at any time at the government's election. As the DOE site in Oak Ridge continues to complete certain of its clean-up milestones and moves toward completing its closure efforts, the revenue from this contract may continue to decline. The Nuclear segment has and will pursue other similar or related contracts for environmental programs at other DOE and government sites. In February 2003, M&EC commenced legal proceedings against Bechtel Jacobs, the general contractor under the Oak Ridge contracts, seeking payment from Bechtel Jacobs of approximately \$4.3 million in surcharges relating to certain wastes that were treated by M&EC in 2001 and 2002 under the Oak Ridge contracts. We have recognized approximately \$381,000 in revenue for these surcharges, which represented an initial offer for settlement by Bechtel Jacobs. Bechtel Jacobs continues to deliver waste to M&EC for treatment, and M&EC continues to accept such waste. addition, subsequent to the filing of the lawsuit, M&EC has entered into a new contract with Bechtel Jacobs to treat DOE waste. There is no guarantee of future business under the Oak Ridge contracts, and either party may terminate the Oak Ridge contracts at any time. Termination of these contracts could have a material adverse effect on us. We are working towards increasing other sources of revenues at M&EC to reduce the risk of reliance on one major source of revenues.

During the second quarter of 2004, the Nuclear segment was awarded a contract from a Fortune 500 company valued at approximately \$6,218,000 to treat and dispose of mixed waste generated from research and development activities. This contract requires innovative treatment processing technologies we developed to accommodate the complex nature of these wastes. The contract should be completed during the second quarter of 2005. We recognized \$3,195,000 in revenues from this contract for the year ended December 31, 2004 or 3.8% of total consolidated revenues for the year.

During October 2004, the Nuclear segment was awarded a three-year contract valued at approximately \$23,000,000 for the treatment of mixed low-level wastes generated at the DOE's Hanford Site. Fluor Hanford, a prime contractor supporting DOE's cleanup mission at Hanford, has awarded this contract to us to provide specialized thermal treatment for a variety of mixed low-level radioactive wastes generated at Hanford. As with contracts or subcontracts with or involving the federal government, this contract may be terminated or renegotiated at anytime at the government's option. We recognized \$459,000 in revenues from this contract for the year ended December 31, 2004.

*Insurance*. We maintain insurance coverage similar to, or greater than, the coverage maintained by other companies of the same size and industry, which complies with the requirements under applicable environmental laws. We evaluate our insurance policies annually to determine adequacy, cost effectiveness and desired deductible levels. Due to the downturn in the economy and changes within the environmental insurance market, we have no guarantee that we will be able to obtain similar insurance in future years, or that the cost of such insurance will not increase materially.

*PFD Litigation.* As discussed under "Legal Proceedings", and other sections of this report, PFD is involved in legal proceedings with the EPA and others alleging, among other things, that PFD is required to have obtained a Title V air permit in order to carry out its operations, which PFD vigorously disagrees with and is contesting. If it is determined that PFD is required to have a Title V air permit, such could

have a material adverse effect on our liquidity and we anticipate substantial additional capital expenditures at PFD would be required in order to bring PFD into compliance with Title V air permit requirements. As of the date of this report, we do not have any reliable estimates of the effect on our liquidity or the cost of such additional capital expenditures if there is an adverse ruling regarding the Title V air permit issue.

### **Environmental Contingencies**

We are 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, we are subject to rigorous federal, state and local regulations. These regulations mandate strict compliance and therefore are a cost and concern to us. Because of their integral role in providing quality environmental services, we make every reasonable attempt to maintain complete compliance with these regulations; however, even with a diligent commitment, we, along with many of our competitors, may be required to pay fines for violations or investigate and potentially remediate our waste management facilities.

We routinely use third party disposal companies, who ultimately destroy or secure landfill residual materials generated at our facilities or at a client's site. We, compared to certain of our competitors, dispose of significantly less hazardous or industrial by-products from our operations due to rendering material non-hazardous, discharging treated wastewaters to publicly-owned treatment works and/or processing wastes into saleable products. In the past, numerous third party disposal sites have improperly managed wastes and consequently require remedial action; consequently, any party utilizing these sites may be liable for some or all of the remedial costs. Despite our aggressive compliance and auditing procedures for disposal of wastes, we could, in the future, be notified that we are a PRP at a remedial action site, which could have a material adverse effect.

We have budgeted for 2005, \$1,265,000 in environmental remediation expenditures to comply with federal, state and local regulations in connection with remediation of certain contaminates at our facilities. As previously discussed under "Business — Capital Spending, Certain Environmental Expenditures and Potential Environmental Liabilities," our facilities where the remediation expenditures will be made are the Leased Property in Dayton, Ohio (EPS), a former RCRA storage facility as operated by the former owners of PFD, PFM's facility in Memphis, Tennessee, PFSG's facility in Valdosta, Georgia, PFTS's facility in Tulsa, Oklahoma, a property adjacent to our PFFL facility, PFMD's facility in Baltimore, Maryland, PFP's leased property in Pittsburgh, Pennsylvania, and PFMI's facility in Detroit, Michigan. We expect to fund the expenses to remediate the sites from funds generated internally, however, no assurances can be made that we will be able to do so.

At December 31, 2004, we had total accrued environmental remediation liabilities of \$5,210,000, of which \$1,265,000 is recorded as a current liability, which reflects an increase of \$2,635,000 from the December 31, 2003, balance of \$2,575,000. The increase represents additional accruals upon acquisition of PFMD and PFP of approximately \$541,000, and an increase of approximately \$2,259,000 for our discontinued operation, PFMI, based on third party evaluations. These increases were partially offset by payments on remediation projects. The December 31, 2004, current and long-term accrued environmental balance is recorded as follows:

`	 Current Accrual	 Long-term Accrual	 Total
PFD	\$ 110,000	\$ 612,000	\$ 722,000
PFM	302,000	434,000	736,000
PFSG	257,000	512,000	769,000
<b>PFTS</b>	27,000	42,000	69,000
PFFL	25,000		25,000
PFMD		391,000	391,000
PFP	<u> </u>	 150,000	 150,000
	 721,000	 2,141,000	 2,862,000
PFMI	544,000	 1,804,000	 2,348,000
	\$ 1,265,000	\$ 3,945,000	\$ 5,210,000

### **Interest Rate Swap**

We entered into an interest rate swap agreement effective December 22, 2000, to modify the interest characteristics of its outstanding debt from a floating basis to a fixed rate, thus reducing the possible impact of interest rate changes on future income. This agreement involves the receipt of floating rate amounts in exchange for fixed rate interest payments over the life of the agreement without an exchange of the underlying principal amount. The differential to be paid or received is accrued as interest rates change and recognized as an adjustment to interest expense related to the debt. The related amount payable to or receivable from counter parties is included in other assets or liabilities. The value of the interest rate swap at January 1, 2001, was de minimus. At December 31, 2004, the market value of the interest rate swap was in an unfavorable value position of \$41,000 and was recorded as a liability. During the twelve months ended December 31, 2004, we recorded a gain on the interest rate swap of \$89,000, which was an offset to other comprehensive loss on the Statement of Stockholders' Equity (see Note 7 to Notes to Consolidated Financial Statements).

### **Recent Accounting Pronouncements**

In November 2004, the Financial Accounting Standards Board ("FASB") issued Statement No. 151 ("SFAS 151"), *Inventory Costs*. SFAS 151 amends ARB No. 43, Chapter 4 to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material (spoilage). SFAS 151 requires that those items be recognized as current-period charges regardless of whether they meet the criterion of "so abnormal," as defined in ARB No. 43. In addition, SFAS 151 introduces the concept of "normal capacity" and requires the allocation of fixed production overheads to inventory based on the normal capacity of the production facilities. Unallocated overheads must be recognized as an expense in the period in which they are incurred. This statement is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. We do not believe that the adoption of SFAS 151 will have a material effect on our financial statements.

In December 2004, FASB issued Statement No. 153 ("SFAS 153"), Exchanges of Nonmonetary Assets. SFAS 153 amends the guidance in APB Opinion No. 29 to eliminate the exception for nonmonetary exchanges of similar productive assets and replaces it with a general exception for exchanges of nonmonetary assets that do not have commercial substance. SFAS 153 specifies that a nonmonetary exchange has commercial substance if the future cash flows of the entity are expected to change significantly as a result of the exchange. This statement is effective for nonmonetary asset exchanges occurring in fiscal periods beginning after June 15, 2005, and would be applied prospectively. We do not expect the impact of SFAS 153 on our financial position, results of operations and cash flows to be material.

In December 2004, FASB issued Statement No. 123 (revised) ("SFAS 123R"), *Share-Based Payment*. SFAS 123R is a revision of FASB Statement No. 123, *Accounting for Stock-Based* Compensation. This Statement supersedes APB Opinion No. 25, *Accounting for Stock Issued to Employees*, and its related

implementation guidance, and establishes standards for the accounting for transactions in which an entity exchanges its equity instruments for goods or services. It also addresses transactions in which an entity incurs liabilities in exchange for goods or services that are based on the fair value of the entity's equity instruments or that may be settled by the issuance of those equity instruments. SFAS 123R requires a public entity to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award (with limited exceptions). That cost will be recognized over the period during which an employee is required to provide service in exchange for the award. This statement requires companies to recognize the fair value of stock options and other stockbased compensation to employees prospectively, beginning with awards granted, modified, repurchased or cancelled after the fiscal periods beginning after June 15, 2005. We currently measure stock-based compensation in accordance with APB Opinion No. 25 as discussed above. We anticipate adopting SFAS 123R on July 1, 2005. The impact on our financial condition or results of operations will depend on the number and terms of stock options outstanding on the date of change, as well as future options that may be granted. See Note 2 to Notes to Consolidated Financial Statements - Stock-based Compensation for the pro forma impact that the fair value method would have had on our net income/loss for each of the years ended December 31, 2004, 2003 and 2002. We do not expect the impact of SFAS 123R to have an impact on our cash flows or liquidity.

### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to certain market risks arising from adverse changes in interest rates, primarily due to the potential effect of such changes on our variable rate loan arrangements with PNC, as described under Note 7 to Notes to Consolidated Financial Statements. As discussed therein, we entered into an interest rate swap agreement in December 2000, to modify the interest characteristics of \$3.5 million of its \$7.0 million term loan with PNC Bank, from a floating rate basis to a fixed rate, thus reducing the possible impact of interest rate changes on this portion of the debt.

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained within this report 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 report other than a statement of historical fact are forward-looking statements that are subject to known and unknown risks, uncertainties and other factors, which could cause actual results 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, among other things,

- Ability or inability to continue and improve operations and achieve profitability on an annualized basis:
- our ability to develop or adopt new and existing technologies in the conduct of our operations;
- anticipated improvement in our financial performance;
- ability to comply with our general working capital requirements;
- ability to retain or receive certain permits or patents;
- ability to renew permits with minimal effort and costs;
- ability to be able to continue to borrow under our revolving line of credit;
- ability to generate sufficient cash flow from operations to fund all costs of operations and remediation of certain formerly leased property in Dayton, Ohio, and our facilities in Memphis, Tennessee; Valdosta, Georgia; Detroit, Michigan; Ft. Lauderdale, Florida; and Tulsa, Oklahoma;
- ability to remediate certain contaminated sites for projected amounts;
- no further impairment to intangible assets;
- no intention to close any facilities, other than the Michigan facility;
- our possession of all necessary approvals, licenses and permits, and our ability to attain, renew, or receive certain approvals, licenses, permits, or patents;
- no expectation of material future inflationary changes;
- ability to fund budgeted capital expenditures for 2005;
- no further restructuring charges related to our Industrial segment;
- our increased backlog positioning us well from a processing revenue perspective, in the first quarter of 2005;
- expectation that third party consulting fees related to Section 404 of Sarbanes-Oxley, will decline slightly in 2005;
- ability to close and remediate the Michigan facility for the estimated amounts;
- ability to repay our Unsecured Promissory Note utilizing proceeds from the amended term loan with PNC Bank.
- completion of the amendments to the PNC Loan Agreement; and
- goal to improve our balance sheet, pay down debt and improve our liquidity.

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 report, 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;
- the ability to maintain and obtain required permits and approvals to conduct operations;
- the ability to develop new and existing technologies in the conduct of operations;
- ability to retain or renew certain required permits;
- discovery of additional contamination or expanded contamination at a certain Dayton, Ohio, property formerly leased by us or our facilities at Memphis, Tennessee; Valdosta, Georgia; Detroit, Michigan; Ft. Lauderdale, Florida; and Tulsa, Oklahoma, which would result in a material increase in remediation expenditures;
- changes in federal, state and local laws and regulations, especially environmental laws and regulations, or in interpretation of such;
- potential increases in equipment, maintenance, operating or labor costs;
- management retention and development;
- financial valuation of intangible assets is substantially less than expected;
- the requirement to use internally generated funds for purposes not presently anticipated;
- termination of the Oak Ridge Contracts as a result of our lawsuit again Bechtel Jacobs or otherwise:
- inability to maintain profitability on an annualized basis;
- the inability to maintain the listing of our Common Stock on the NASDAQ;
- the determination that PFMI, PFSG or PFO was responsible for a material amount of remediation at certain Superfund sites;
- terminations of contracts with federal agencies or subcontracts involving federal agencies, or reduction in amount of waste delivered to us under these contracts or subcontracts;
- the price of our Common Stock as quoted on the NASDAQ; and
- determination that PFD is required to have a Title V air permit in connection with its operations.

We undertake no obligations to update publicly any forward-looking statement, whether as a result of new information, future events or otherwise.

### Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) of the Securities Exchange Act of 1934. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. A control system, no matter how well designed, can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management, under the supervision and participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of internal control over financial reporting based on the framework in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, we concluded the Company did not maintain effective internal control over financial reporting as of December 31, 2004.

Our assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal control of PFMD and PFP, acquired during 2004, which are included in the 2004 consolidated financial statements and constituted \$5,105,000 of total assets, and \$8,470,000 of revenues and \$414,000 net loss for the year then ended. We did not assess the effectiveness of internal control over financial reporting at these facilities because of the timing of the acquisition which was completed in March 2004.

An internal control significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects our ability to initiate, authorize, record, process, or report external financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of our annual or interim financial statements that is more than inconsequential will not be prevented or detected. An internal control material weakness is a control deficiency, or combination of control deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected.

As of December 31, 2004, certain significant deficiencies were identified, and aggregated into three material weaknesses in our internal control over financial reporting. The material weaknesses related to the following areas:

- 1. ineffective monitoring of controls surrounding our pricing and invoicing process evidenced by certain facilities principally within our Industrial segment, which were not applying the controls consistently;
- 2. lack of evidence of the performance or review of monthly, quarterly, and annual financial statement close processes management has designated integral to financial reporting (relevant to all segments);
- 3. lack of formal corporate policies and procedures that define accounting responsibilities of financial personnel within each of our operating segments in addition to establishing appropriate segregation of duties within each of our operating segments.

We have taken certain steps towards remediation of the material weaknesses listed in 1 and 2 above; however, due to time constraints we have not been able to fully implement such corrective processes, procedures and controls. We are in the process of reviewing what steps should be taken to remediate the material weakness in 3 above. Further, we are in the process of developing a formal remediation plan for the Audit Committee's review and approval, which will then be executed across all segments.

Management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2004, has been audited by BDO Seidman LLP, an independent registered public accounting firm, as stated in their attestation report which is included herein.

### Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders Perma-Fix Environmental Services, Inc. Gainesville, Florida

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting, that Perma-Fix Environmental Services, Inc. and subsidiaries (the "Company") did not maintain effective internal control over financial reporting as of December 31, 2004, because of the effect of three material weaknesses identified in management's assessment with respect to ineffective monitoring of certain invoicing and pricing controls primarily within the Company's Industrial segment, the lack of documented review and approval of financial statement closing processes including facility level financial statements and account reconciliations, and the lack of formal corporate policies and procedures that define accounting responsibilities and establish appropriate segregation of duties of financial personnel within each of the Company's operating segments, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As indicated in the accompanying Management's Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal control of its subsidiaries, Perma-Fix of Maryland, Inc. ("PFMD"), which was formed to acquire certain assets of USL Environmental Services, Inc. d/b/a A&A Environmental ("A&A"), and Perma-Fix of Pittsburgh, Inc. ("PFP"), which was formed to acquire certain assets of US Liquids of

Pennsylvania, Inc. d/b/a EMAX ("EMAX"), which were included in the 2004 consolidated financial statements of the Company and constituted \$5,105,000 of total assets at December 31, 2004, and \$8,470,000 of revenues and \$414,000 of operating loss for the year ended December 31, 2004. Management did not assess the effectiveness of internal control over financial reporting at these entities because of the timing of the acquisition. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of PFMD or PFP.

A material weakness is a control deficiency, or combination of control deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected. The following material weaknesses have been identified and included in management's assessment as of December 31, 2004:

- 1) The monitoring of pricing and invoicing process controls at certain facilities within the Company's Industrial segment; were ineffective, and were not being applied consistently. This weakness could result in sales being priced and invoiced at amounts, which were not approved by the customer or the appropriate level of management.
- 2) The lack of documentation evidencing the performance or review of monthly, quarterly, and annual financial statement closing processes that management has designated integral to financial reporting within all of the Company's segments. This weakness could result in a schedule or report being overlooked in the financial statement closing process and an error not being detected.
- 3) The lack of formal corporate policies and procedures that define accounting responsibilities and establish appropriate segregation of duties of financial personnel within each of the Company's operating segments. This weakness could result in facility level accounting personnel effecting unauthorized transactions or overlooking valid transactions to be recorded due to a lack of segregation of duties and defined responsibilities.

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2004 financial statements, and this report does not affect our report dated March 28, 2005 on those financial statements.

In our opinion, management's assessment that the Company did not maintain effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on the COSO control criteria. Also, in our opinion, because of the effect of the material weaknesses described above on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2004, based on the COSO control criteria.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements of the Company as of and for the year ended December 31, 2004, and our report dated March 28, 2005 expressed an unqualified opinion on those financial statements.

West Palm Beach, Florida March 28, 2005

BDO Seidman, LLP

#### ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Schedules Omitted
In accordance with the rules of Regulation S-X, other schedules are not submitted because (a) they are not applicable to or required by the Company, or (b) the information required to be set forth therein is included in the consolidated financial statements or notes thereto.

### Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders Perma-Fix Environmental Services, Inc. Gainesville, Florida

We have audited the accompanying consolidated balance sheets of Perma-Fix Environmental Services, Inc. and subsidiaries as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2004. We have also audited the schedule listed in the accompanying index. These consolidated financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and schedule are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements and schedule assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements and schedule. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Perma-Fix Environmental Services, Inc. and subsidiaries at December 31, 2004 and 2003, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2004, in conformity with accounting principles generally accepted in the United States of America

Also, in our opinion, the schedule presents fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Perma-Fix Environmental Services, Inc.'s internal control over financial reporting as of December 31, 2004, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated March 28, 2005 expressed an adverse opinion thereon.

West Palm Beach, Florida March 28, 2005

BDO Seidman, LLP

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

As of December 31,

(Amounts in Thousands, Except for Share Amounts)		2004		2003
ASSETS				
Current assets				
Cash	\$	215	\$	411
Restricted cash	Ψ	60	Ψ	30
Accounts receivable, net of allowance for doubtful		00		50
accounts of \$570 and \$661		27,192		23,576
Inventories		882		544
Prepaid expenses		2,891		2,274
Other receivables		45		92
Current assets of discontinued operations, net of allowance for doubtful				
accounts of \$125 and \$42		1,609		1,454
Total current assets		32,894		28,381
Property and equipment:				
Buildings and land		18,313		17,629
Equipment		30,281		28,513
Vehicles		4,187		2,709
Leasehold improvements		11,514		11,082
Office furniture and equipment		2,396		1,654
Construction-in-progress		1,852		2,621
		68,543		64,208
Less accumulated depreciation and amortization		(21,282)		(16,897)
Net property and equipment		47,261		47,311
Property and equipment of discontinued operations, net of accumulated				
depreciation of \$0 and \$2,299		600		5,758
Intangibles and other assets:				
Permits		12,895		16,680
Goodwill		1,330		6,216
Finite Risk Sinking Fund		2,225		1,234
Other assets		3,250		4,635
Total assets	\$	100,455	\$	110,215

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

As of December 31,

(Amounts in Thousands, Except for Share Amounts)	2004	2003
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 6,529	\$ 5,518
Current environmental accrual	721	1,054
Accrued expenses	12,100	11,138
Unearned revenue	5,115	2,271
Current liabilities of discontinued operations	2,550	1,345
Current portion of long-term debt	6,376	2,896
Total current liabilities	33,391	24,222
Environmental accruals	2,141	1,432
Accrued closure costs	5,062	4,874
Other long-term liabilities	1,944	1,677
Long-term liabilities of discontinued operations	1,804	91
Long-term debt, less current portion	12,580	 26,192
Total long-term liabilities	 23,531	 34,266
Total liabilities	56,922	58,488
Commitments and Contingencies (see Note 13)		_
Preferred Stock of subsidiary, \$1.00 par value; 1,467,396 shares authorized,	1.205	1 205
1,284,730 shares issued and outstanding, liquidation value \$1.00 per share	1,285	1,285
Stockholders' equity:		
Preferred Stock, \$.001 par value; 2,000,000 shares authorized, 2,500		
shares issued and outstanding	_	
Common Stock, \$.001 par value; 75,000,000 shares authorized,		
42,749,117 and 37,241,881 shares issued, including 988,000 shares		
held as treasury stock, respectively	43	37
Additional paid-in capital	80,902	69,640
Accumulated deficit	(36,794)	(17,243)
Interest rate swap	 (41)	 (130)
	44,110	52,304
Less Common Stock in treasury at cost; 988,000 shares	 (1,862)	 (1,862)
Total stockholders' equity	42,248	50,442
Total liabilities and stockholders' equity	\$ 100,455	\$ 110,215

# PERMA-FIX ENVIRONMENTAL SERVICES, INC. CONSOLIDATED STATEMENTS OF OPERATIONS

For the years ended December 31

(Amounts in Thousands, Except for Share Amounts)	2004	2003	2002
Net Revenues	\$ 83,373	\$ 79,153	\$ 77,778
Cost of goods sold	59,523	54,041	54,875
Gross Profit	23,850	25,112	22,903
Selling, general and administrative expenses	18,702	17,527	16,603
Loss (gain) on disposal or impairment of fixed assets	994	(4)	19
Impairment loss on intangible assets	9,002		
Income (loss) from operations	(4,848)	7,589	6,281
Other income (expense):			
Interest income	3	8	16
Interest expense	(2,020)	(2,804)	(2,842)
Interest expense – financing fees	(2,191)	(1,070)	(1,044)
Other	(492)	(79)	266
Income (loss) from continuing operations	(9,548)	3,644	2,677
Discontinued operations:			
Loss from discontinued operations	(635)	(526)	(475)
Loss on disposal of discontinued operations	(9,178)		
Total loss from discontinued operations	(9,813)	(526)	(475)
Net income (loss)	(19,361)	3,118	2,202
Preferred Stock dividends	(190)	(189)	(158)
Net income (loss) applicable to Common Stock	<u>\$ (19,551)</u>	\$ 2,929	\$ 2,044
Net income (loss) per common share – basic:			
Continuing operations	\$ (.24)	.10	\$ .07
Discontinued operations	(.24)	(.02)	(.01)
Net income (loss) per common share	\$ (.48)	\$ .08	\$ .06
Net income (loss) per common share – diluted:			
Continuing operations	\$ (.24)	.09	\$ .06
Discontinued operations	(.24)	(.01)	(.01)
Net income (loss) per common share	\$ (.48)	\$ .08	\$ .05
Number of shares and potential common shares Used in computing net income (loss) per share:			
Basic	40,478	34,982	34,217
Diluted	40,478	39,436	42,618

# PERMA-FIX ENVIRONMENTAL SERVICES, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31

(Amounts in Thousands)		2004		2003		2002
Cash flows from operating activities:						
Net income (loss)	\$	(19,361)	\$	3,118	\$	2,202
Adjustments to reconcile net income (loss) to cash provided by						
(used in) operations:						
Depreciation and amortization		4,631		4,237		3,738
Debt discount amortization		838		324		
Provision for bad debt and other reserves		224		271		697
(Gain) loss on disposal or impairment of plant, property and equipment		994		(4)		19
Intangible asset impairment		9,002				
Discontinued operation		9,162		(292)		772
Changes in assets and liabilities, of continuing operations net of effects from business acquisitions:						
Accounts receivable		(1,636)		(2,382)		(5,379)
Prepaid expenses, inventories and other assets		827		(741)		(267)
Accounts payable, accrued expenses and unearned revenue		2,216		(572)		3,831
Net cash provided by operations		6,897		3,959		5,613
Cash flows from investing activities:						
Purchases of property and equipment, net		(2,733)		(2,126)		(4,548)
Proceeds from sale of plant, property and equipment		(3)		17		10
Change in restricted cash, net		(2)		(13)		(6)
Change in finite risk sinking fund		(991)		(1,234)		_
Cash used for acquisition consideration, net of cash acquired		(2,903)		_		
Cash used in discontinued operations		(122)		(52)		(213)
Net cash used in investing activities		(6,754)		(3,408)		(4,757)
Cash flows from financing activities:						
Net borrowings (repayments) of revolving credit		(2,755)		494		78
Principal repayments of long term debt		(8,535)		(3,530)		(2,094)
Proceeds from issuance of stock		10,951		2,684		512
Net cash used in financing activities		(339)		(352)		(1,504)
Increase (decrease) in cash		(196)		199		(648)
Cash at beginning of period		411		212		860
Cash at end of period	\$	215	\$	411	\$	212
Supplemental disalogura:						
Supplemental disclosure: Interest paid	\$	1,920	\$	2,381	\$	2,569
Non-cash investing and financing activities:	Ψ	1,920	Φ	2,301	Φ	4,509
Issuance of Common Stock for services		192		34		120
Issuance of Common Stock for payment of dividends		125		125		125
Interest rate swap valuation		89		85		57
Long-term debt incurred for purchase of property and equipment		320		1,284		1,061

## PERMA-FIX ENVIRONMENTAL SERVICES, INC CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

For the years ended December 31

		ed Stock Amount	Common Shares	Stock Amount	F	lditional Paid-In Capital	cumulated Deficit	R	erest late wap	S H	ommon Stock feld In reasury	Stoc	Total ekholders' Equity
Balance at December 31, 2001	2,500	\$ <u> </u>	35,008,005	\$ 35	\$	66,042	\$ (22,216)	\$	(158)	\$	(1,862)	\$	41,841
Comprehensive income Net income							 2,202						2,202
Other comprehensive (loss): Interest Rate Swap Comprehensive	_	_	_	_		_	_		(57)		_		(57)
income Preferred Stock dividends	_	_	_	_		_	(158)		_		_		2,145 (158)
Issuance of Common Stock for Preferred Stock dividends	_	_	46,323	_		125	_		_		_		125
Issuance of Common Stock for cash and services	_	_	121,360	_		282	_		_		_		282
Exercise of Warrants and Options			151,046		_	350	 						350
Balance at December 31, 2002	2,500	<u>\$</u>	35,326,734	\$ 35	\$	66,799	\$ (20,172)	\$	(215)	\$	(1,862)	\$	44,585
Comprehensive income Net income	_	_	_	_		_	3,118		_		_		3,118
Other comprehensive income: Interest Rate Swap	_	_	_	_		_	_		85		_		85
Comprehensive Preferred Stock dividends	_	_	_	_		_	(189)		_		_		3,203 (189)
Issuance of Common Stock for Preferred Stock dividends	_	_	59,000	_		125	_		_		_		125
Issuance of Common Stock for cash and services	_	_	102,850	_		216	_		_		_		216
Exercise of Warrants and Options			1,753,297	2		2,500	 						2,502
Balance at December 31, 2003	2,500	<u>\$</u>	37,241,881	\$ 37	\$	69,640	\$ (17,243)	\$	(130)	\$	(1,862)	\$	50,442
Comprehensive loss Net loss	_	_	_	_		_	(19,361)		_		_		(19,361)
Other comprehensive income:									90				90
Interest rate swap Comprehensive loss	_	_	_	_		_	_		89		_		(19,280)
Preferred stock dividends	_	_	_	_		_	(190)		_		_		(190)
Issuance of Common Stock for Preferred Stock dividends	_	_	54,581	_		125	_		_		_		125
Issuance of Common Stock for cash and services	_	_	172,647	_		305	_		_		_		305
Issuance of Common Stock in private placement	_	_	4,616,113	5		9,865	_		_		_		9,870
Exercise of Warrants and Options			663,895	1		967	 						968
Balance at December 31, 2004	2,500	<u>\$</u>	42,749,117	\$ 43	\$	80,902	\$ (36,794)	\$	(41)	\$	(1,862)	\$	42,248

### PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Notes to Consolidated Financial Statements December 31, 2004, 2003, and 2002

### NOTE 1 DESCRIPTION OF BUSINESS AND BASIS OF PRESENTATION

Perma-Fix Environmental Services, Inc. (the Company, which may be referred to as we, us, or our), an environmental and technology know-how company, is a Delaware corporation, engaged through its subsidiaries, in:

- Industrial Waste Management Services ("Industrial"), which includes:
  - o Treatment, storage, processing, and disposal of hazardous and non-hazardous waste;
  - o Turnkey waste management and disposal services for large retail companies;
  - Wastewater management services, including the collection, treatment, processing and disposal of hazardous and non-hazardous wastewater; and
  - o Environmental services, including emergency response, vacuum services, marine environmental and other remediation services.
- Nuclear Waste Management Services ("Nuclear"), which includes:
  - o Treatment, storage, processing and disposal of mixed waste (waste that is both low-level radioactive and hazardous) which includes on and off-site waste remediation and processing;
  - Nuclear, low-level radioactive, hazardous and non-hazardous waste treatment, processing and disposal; and
  - o Research and development of innovative ways to process low-level radioactive and mixed waste.
- Consulting Engineering Services, which includes:
  - o Broad-scope environmental issues, including environmental management programs, regulatory permitting, compliance and auditing, landfill design, field testing and characterization.

We have grown through both acquisitions and internal development. Our present objective is to focus on the efficient operation of our existing facilities, evaluate strategic acquisitions within both the nuclear and industrial segments, and to continue the research and development of innovative technologies for the treatment of nuclear, mixed waste and industrial waste. Such research and development expenses, although important, are not considered material.

We are subject to certain risks: (1) We are involved in the treatment, handling, storage and transportation of hazardous and non-hazardous, mixed and industrial wastes and wastewater. Such activities contain risks against which we believe we are adequately insured, and (2) in general, certain product lines within the Industrial segment, are characterized by competition among a number of larger, more established companies with significantly greater resources.

Our consolidated financial statements include our accounts, and the accounts of our wholly-owned subsidiaries, Schreiber, Yonley and Associates ("SYA"), Perma-Fix Treatment Services, Inc. ("PFTS"), Perma-Fix of Florida, Inc. ("PFF"), Perma-Fix of Dayton, Inc. ("PFD"), Perma-Fix of Ft. Lauderdale, Inc. ("PFFL"), Perma-Fix of Orlando, Inc. ("PFO"), Perma-Fix of South Georgia, Inc. ("PFSG"), Diversified Scientific Services, Inc. ("DSSI"), East Tennessee Materials & Energy Corporation ("M&EC"), and Perma-Fix of Michigan, Inc. ("PFMI"), a discontinued operation (see Note 5). Perma-Fix of Maryland, Inc. ("PFMD") and Perma-Fix of Pittsburgh, Inc. ("PFP") have been included in our consolidated financial statements in 2004, from their date of acquisition.

### NOTE 2

### SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### **Principles of Consolidation**

Our consolidated financial statements include our accounts and our wholly-owned subsidiaries after elimination of all significant intercompany accounts and transactions.

#### Reclassifications

Certain prior year amounts have been reclassified to conform with the current year presentation.

### **Use of Estimates**

When we prepare financial statements in conformity with generally accepted accounting principles, we make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as, the reported amounts of revenues and expenses during the reporting period. See Notes 5, 9, 10, and 13 for estimates of discontinued operations, closure costs, environmental liabilities and contingencies. Actual results could differ from those estimates.

### **Restricted Cash**

Restricted cash reflects secured collateral relative to the various bonding requirements required for the PFFL treatment, storage and disposal facility, the PFMD hazardous waste transporter permit in the state of Pennsylvania and the PFP hazardous waste storage and transporter permit in the state of Pennsylvania. The long-term portion of approximately \$452,000 is included in other long-term assets on our Consolidated Balance Sheets, and reflects cash held for long-term commitments related to the RCRA remedial action at a facility affiliated with PFD as further discussed in Note 10. The letter of credit secured by the current restricted cash renews annually.

### **Accounts Receivable**

Accounts receivable are customer obligations due under normal trade terms requiring payment within 30 or 60 days from the invoice date based on the customer type (government, broker, or commercial). Account balances are stated by invoice at the amount billed to the customer. Payments of accounts receivable are made directly to a lockbox and are applied to the specific invoices stated on the customer's remittance advice. The carrying amount of accounts receivable is reduced by an allowance for doubtful accounts, which is a valuation allowance that reflects management's best estimate of the amounts that will not be collected. We regularly review all accounts receivable balances that exceed 60 days from the invoice date and based on an assessment of current credit worthiness, estimate the portion, if any, of the balance that will not be collected. This analysis excludes government related receivables due to our confidence in their collectibility. Specific accounts that are deemed to be uncollectible are reserved at 100% of their outstanding balance. The remaining balances aged over 60 days have a percentage applied by aging category (5% for balances 61-90 days, 20% for balances 91-120 days and 40% for balances over 120 days aged), based on a historical valuation, that allows us to calculate the total reserve required. Once we have exhausted all options in the collection of a delinquent accounts receivable balance, which includes collection letters, demands for payment, collection agencies and attorneys, the account is deemed uncollectible and subsequently written off. The write off process involves approvals, based on dollar amount, from senior management.

### **Inventories**

Inventories consist of treatment chemicals, salable used oils, and certain supplies. Additionally, we have replacement parts in inventory, which are deemed critical to the operating equipment and may also have extended lead times should the part fail and need to be replaced. Inventories are valued at the lower of cost or market with cost determined by the first-in, first-out method.

### **Property and Equipment**

Property and equipment expenditures are capitalized and depreciated using the straight-line method over the estimated useful lives of the assets for financial statement purposes, while accelerated depreciation methods are principally used for tax purposes. Generally, annual depreciation rates range from ten to fifty years for buildings (including improvements and asset retirement costs) and three to seven years for office furniture and equipment, vehicles, and decontamination and processing equipment. Leasehold improvements are capitalized and depreciated over the lesser of the life of the lease or the life of the asset. Maintenance and repairs are charged directly to expense as incurred. The cost and accumulated depreciation of assets sold or retired are removed from the respective accounts, and any gain or loss from sale or retirement is recognized in the accompanying consolidated statements of operations. Renewals and improvements, which extend the useful lives of the assets, are capitalized. Included within buildings is an asset retirement obligation, which represents our best estimate of the cost to close, at some undetermined future date, our permitted and/or licensed facilities. The asset retirement cost was originally recorded at \$4,559,000 and depreciates over the life of the property.

Long-lived assets are reviewed for impairment as events and circumstances indicate that the assets carrying value is impaired. The impairment recognized is the amount that carrying value exceeds fair value of the assets impaired, less costs to sell the assets. During the third quarter of 2004, we reevaluated certain assets of projects that had been abandoned as part of the restructuring process of our Industrial segment. Those assets were determined to have no fair value, and as a result, we recognized an impairment to our fixed assets of approximately \$1,026,000 in 2004.

### **Intangible Assets**

Intangible assets relating to acquired businesses consist primarily of the cost of purchased businesses in excess of the estimated fair value of net assets acquired ("goodwill") and the recognized permit value of the business. Prior to our adoption of SFAS 142, effective January 1, 2002, goodwill had been amortized over 20 to 40 years and permits amortized over 10 to 20 years. Effective January 1, 2002, we discontinued amortizing our indefinite life intangible assets (goodwill and permits). We continually reevaluate the propriety of the carrying amount of permits and goodwill to determine whether current events and circumstances warrant adjustments to the carrying value and estimates of useful lives. Effective January 1, 2002, we adopted SFAS 142 and obtained an initial financial valuation of our intangible assets, which indicated no impairment to our indefinite life intangible assets. Our annual financial valuations performed as of October 1, 2003, and October 1, 2002 indicated no impairments. Our annual impairment test performed as of October 1, 2004 resulted in an impairment of \$9,002,000 to our goodwill and permits in our Industrial segment. For further discussion on the impairment see Note 3.

### **Accrued Closure Costs**

Accrued closure costs represent our estimated environmental liability to clean up our facilities as required by our permits, in the event of closure.

### **Income Taxes**

We account for income taxes under Statement of Financial Accounting Standards ("SFAS") No. 109, "Accounting for Income Taxes", which requires use of the liability method. SFAS No. 109 provides that deferred tax assets and liabilities are recorded based on the differences between the tax basis of assets and liabilities and their carrying amounts for financial reporting purposes, referred to as temporary differences. Deferred tax assets or liabilities at the end of each period are determined using the currently enacted tax rates to apply to taxable income in the periods in which the deferred tax assets or liabilities are expected to be settled or realized. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

### **Comprehensive Income**

Comprehensive income is defined as the change in equity (net assets) of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. It includes all changes in equity during a period except those resulting from investments by owners and distributions to owners. Comprehensive income has two components, net income and other comprehensive income, and is included on the balance sheet in the equity section. Our comprehensive income consists of the market value of the interest rate swap. For more information see Interest Rate Swap.

### **Change in Accounting Estimate**

Effective September 1, 2003 we refined our percentage of completion methodology for purposes of revenue recognition in the Nuclear Waste Management Services segment. As we accept more complex waste streams in this segment, the treatment of those waste streams becomes more complicated and more time consuming. We have continued to enhance our waste tracking capabilities and systems, which has enabled us to better match the revenue earned to the processing phases achieved. The refined methodology more closely represents the timing of the treatment process. We treated the change in methodology as a change in accounting estimate, according to APB Opinion 20 *Accounting Changes* and accounted for such changes prospectively.

### **Revenue Recognition**

Nuclear revenues. The processing of mixed waste is complex and may take several months to complete, as such we recognize revenues on a percentage of completion basis. We have waste tracking capabilities, which we continue to enhance, to allow us to better match the revenues earned to the processing phases achieved. The revenues are recognized as each of the following three processing phases are completed: receipt, treatment/processing and shipment/final disposal. However, based on the processing of certain waste streams, the treatment/processing and shipment/final disposal phases may be combined as they are completed concurrently. As the waste moves through these processing phases and revenues are recognized the correlating expenses are incurred.

As a significant customer, revenues with Bechtel Jacobs, which includes revenues under the Oak Ridge contracts, accounted for approximately \$9,405,000 or 11.3%, and \$13,139,000 or 16.6%, of total revenues for the years ended December 31, 2004 and December 31, 2003, respectively. Either party may at any time terminate the Oak Ridge contracts. See Note 13 – Commitments and Contingencies.

Industrial waste revenues. Since industrial waste streams are much less complicated than mixed waste streams and they require a short processing period, we recognize revenues for industrial services at the time the services are substantially rendered, which generally happens upon receipt of the waste, or shortly thereafter. These large volumes of bulk waste are received and immediately commingled with various customers' wastes, which transfers the legal and regulatory responsibility and liability to us upon receipt. As we continue to enhance our waste tracking systems within the segment we will continue to review and reevaluate our revenue recognition policy.

Consulting revenues. Consulting revenues are recognized as services are rendered, as is consistent with industry standards. The services provided are based on billable hours and revenues are recognized in relation to incurred labor and consulting costs.

### **Self-Insurance**

We have a self-insurance program for certain health benefits. The cost of these benefits is recognized as expense in the period in which the claim occurred, including estimates of claims incurred but not reported. Claims expense for 2004 was approximately \$2,985,000, as compared to \$2,631,000 and \$3,006,000 for 2003 and 2002, respectively.

### **Stock-Based Compensation**

We account for our stock-based employee compensation plans under the accounting provisions of APB Opinion No. 25, Accounting for Stock Issued to Employees, and have furnished the pro forma disclosures required under SFAS No. 123, Accounting for Stock-Based Compensation, and SFAS No. 148, Accounting for Stock-Based Compensation - Transition and Disclosure. See Note 12 for additional disclosures on our stock-based employee compensation plans.

Statement of Financial Accounting Standards No. 123 ("FAS 123") "Accounting for Stock-Based Compensation," requires us to provide pro forma information regarding net income and earnings per share as if compensation cost for our employee and directors stock options had been determined in accordance with the fair market value-based method prescribed in FAS 123. We estimate the fair value of each stock option at the grant date by using the Black-Scholes option-pricing model with the following weighted-average assumptions used for grants in 2004, 2003, and 2002, respectively: no dividend yield for all years; an expected life of ten years for all years; expected volatility of 21.72% - 37.50%, 23.19% - 25.75%, and 30.51%, and risk-free interest rates of 3.34% - 3.82%, 2.75% - 3.33%, and 2.93%.

Under the accounting provisions of FASB Statement 123, our net income (loss) and net income (loss) per share would have been reduced (increased) to the pro forma amounts indicated below (in thousands except for per share amounts):

2004	2003	2002
\$ (9,738)	3,455	\$ 2,519
(383)	(470)	(327)
\$ (10,121)	2,985	\$ 2,192
\$ (.24)	.10	\$ .07
<u>\$ (.25)</u>	.09	<u>\$ .06</u>
		\$ .06 \$ .05
	\$ (9,738) \$ (383) \$ (10,121) \$ \$ (.24) \$ \$ (.25) \$ \$ \$ (.24) \$ \$ \$ (.24) \$ \$ \$ (.24) \$ \$ \$ (.24) \$ \$ \$ (.24) \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ \$ \$ (.24) \$ \$ (.24) \$ \$	\$ (9,738) \$ 3,455 (383) (470) \$ (10,121) \$ 2,985 \$ (.24) \$ .10 \$ (.25) \$ .09 \$ (.24) \$ .09

### **Net Income (Loss) Per Share**

Basic EPS is based on the weighted average number of shares of Common Stock outstanding during the year. Diluted EPS includes the dilutive effect of potential common shares. Diluted loss per share for the year ended December 31, 2004 does not include potential common shares, as their effect would be anti-dilutive.

The following is a reconciliation of basic net income (loss) per share to diluted net income (loss) per share for the years ended December 31, 2004, 2003, and 2002:

(Amounts in Thousands, Except for Per Share Amounts)		2004	2003		2002
Earnings per share from continuing operations					
Income (loss) from continuing operations	\$	(9,548) \$	3,644	\$	2,677
Preferred stock dividends		(190)	(189)		(158)
Income (loss) from continuing operations applicable to					
Common Stock		(9,738)	3,455		2,519
Effect of dilutive securities:					
Preferred Stock dividends			189		158
Income (loss) – diluted	\$	(9,738) \$	3,644	\$	2,677
Basic income (loss) per share	\$	(.24) \$	.10	\$	.07
Diluted income (loss) per share	\$	(.24) \$	.09	\$	.06
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				_	
Earnings per share from discontinued operations					
Loss – basic and diluted	\$	(9,813) \$	(526)	\$	(475)
Basic loss per share	\$	(.24) \$	(.02)	\$	(.01)
Diluted loss per share	\$	(.24) \$	(.01)	\$	(.01)
Diffuted 1000 per share	Ψ	<u>(.2 Ι</u> ) <u>ψ</u>	(.01)	Ψ	(.01)
Weighted average shares outstanding – basic		40,478	34,982		34,217
Potential shares exercisable under stock option plans		<u> </u>	477		1,070
Potential shares upon exercise of Warrants			2,310		5,664
Potential shares upon conversion of Preferred Stock			1,667		1,667
Weighted average shares outstanding – diluted		40,478	39,436		42,618
	=				,
•					
Potential shares excluded from above weighted average share					
calculations due to their anti-dilutive effect include:					
Upon exercise of options		2,976	1,472		187
Upon exercise of Warrants		12,791	20		<del></del>
Upon conversion of Preferred Stock		1,667	_		_
•		-			

### **Interest Rate Swap**

We entered into an interest rate swap agreement effective December 22, 2000, to modify the interest characteristics of its outstanding debt from a floating basis to a fixed rate, thus reducing the possible impact of interest rate changes on future income. This agreement involves the receipt of floating rate amounts in exchange for fixed rate interest payments over the life of the agreement without an exchange of the underlying principal amount. The differential to be paid or received is accrued as interest rates change and recognized as an adjustment to interest expense related to the debt. The related amount payable to or receivable from counter parties is included in other assets or liabilities.

### **Fair Value of Financial Instruments**

The book values of cash, trade accounts receivable, trade accounts payable, accrued expenses and unearned revenues approximate their fair values principally because of the short-term maturities of these instruments. The fair value of our long-term debt is estimated based on the current rates offered to us for debt of similar terms and maturities. Under this method, the fair value of long-term debt was not significantly different from the stated value at December 31, 2004 and 2003. The book value of our subsidiary's preferred stock is not significantly different than its fair value.

### **Recent Accounting Pronouncements**

In November 2004, the Financial Accounting Standards Board ("FASB") issued Statement No. 151 ("SFAS 151"), *Inventory Costs*. SFAS 151 amends ARB No. 43, Chapter 4 to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material (spoilage). SFAS 151 requires that those items be recognized as current-period charges regardless of whether they meet the criterion of "so abnormal," as defined in ARB No. 43. In addition, SFAS 151 introduces the concept of "normal capacity" and requires the allocation of fixed production overheads to inventory based on the normal capacity of the production facilities. Unallocated overheads must be recognized as an expense in the period in which they are incurred. This statement is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. We do not believe that the adoption of SFAS 151 will have a material effect on our financial statements.

In December 2004, FASB issued Statement No. 153 ("SFAS 153"), Exchanges of Nonmonetary Assets. SFAS 153 amends the guidance in APB Opinion No. 29 to eliminate the exception for nonmonetary exchanges of similar productive assets and replaces it with a general exception for exchanges of nonmonetary assets that do not have commercial substance. SFAS 153 specifies that a nonmonetary exchange has commercial substance if the future cash flows of the entity are expected to change significantly as a result of the exchange. This statement is effective for nonmonetary asset exchanges occurring in fiscal periods beginning after June 15, 2005, and would be applied prospectively. We do not expect the impact of SFAS 153 on our financial position, results of operations and cash flows to be material.

In December 2004, FASB issued Statement No. 123 (revised) ("SFAS 123R"), Share-Based Payment. SFAS 123R is a revision of FASB Statement No. 123, Accounting for Stock-Based Compensation. This Statement supersedes APB Opinion No. 25, Accounting for Stock Issued to Employees, and its related implementation guidance, and establishes standards for the accounting for transactions in which an entity exchanges its equity instruments for goods or services. It also addresses transactions in which an entity incurs liabilities in exchange for goods or services that are based on the fair value of the entity's equity instruments or that may be settled by the issuance of those equity instruments. SFAS 123R requires a public entity to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award (with limited exceptions). That cost will be recognized over the period during which an employee is required to provide service in exchange for the award. This statement requires companies to recognize the fair value of stock options and other stockbased compensation to employees prospectively, beginning with awards granted, modified, repurchased or cancelled after the fiscal periods beginning after June 15, 2005. We currently measure stock-based compensation in accordance with APB Opinion No. 25 as discussed above. We anticipate adopting SFAS 123R on July 1, 2005. The impact on our financial condition or results of operations will depend on the number and terms of stock options outstanding on the date of change, as well as future options that may be granted. See "Stock-based Compensation" earlier in this Note 2 for the pro forma impact that the fair value method would have had on our net income for each of the years ended December 31, 2004, 2003 and 2002. We do not expect the impact of SFAS 123R to have an impact on our cash flows or liquidity.

### NOTE 3 GOODWILL AND OTHER INTANGIBLE ASSETS

We adopted SFAS 142 January 1, 2002. SFAS 142 requires, among other things, that companies no longer amortize goodwill, but instead test goodwill for impairment at least annually. In addition, SFAS 142 requires that we identify reporting units for the purposes of assessing potential future impairments of goodwill, reassess the useful lives of other existing recognized intangible assets, and cease amortization of intangible assets with an indefinite useful life. We discontinued amortizing our indefinite-life intangible assets (goodwill and permits) in January 2002. An intangible asset with an indefinite useful

life should be tested for impairment in accordance with the guidance in SFAS 142. SFAS 142 required us to complete a transitional goodwill impairment test six months from the date of adoption. We were also required to reassess the useful lives of other intangible assets within the first interim quarter after adoption of SFAS 142. We utilized an independent appraisal firm to test goodwill and permits, separately, for impairment. The appraiser's reports indicated no impairment as of October 1, 2003, and October 1, 2002. Our annual impairment test as of October 1, 2004, resulted in an impairment of goodwill and permits, in our Industrial segment in the amounts of \$4,886,000 and \$4,116,000, respectively. During the third quarter we recorded an estimated impairment of \$7,101,000 for both goodwill and permits, based on a preliminary third party impairment test, with the final impairment test resulting in an additional impairment of \$1,901,000 for both goodwill and permits. The additional impairment included \$972,000 due principally to increased appraised values of our fixed assets. Additionally, the original impairment amount of \$929,000 allocated to our discontinued operation, PFMI was reclassified to the impairment loss on intangible assets of continuing operations of the Industrial segment. See Note 5 for further discussion. The aggregate impairment of \$9,002,000 is recorded in our loss from operations for the twelve months ended December 31, 2004, in our Consolidated Statement of Operations. The annual impairment test indicated no impairment for our Nuclear and Engineering segments.

The following table is a summary of changes in the carrying amount of goodwill for the years ended December 31, 2002, 2003, and 2004 (amounts in thousands). Our Nuclear segment has been excluded as it has no goodwill recorded.

	Industrial Engineering					
Goodwill	Se	egment	Se	egment		Total
Balance as of January 1, 2002	\$	5,180	\$	1,330	\$	6,840
Reclass of accumulated amortization		16		_		16
Balance as of December 31, 2002		5,196		1,330		6,525
Reclass of goodwill to asset retirement costs (Notes 2 and 9)	)	(309)				(309)
Balance as of December 31, 2003		4,886		1,330		6,216
Impairment of goodwill		(4,886)				(4,886)
Balance as of December 31, 2004	\$		\$	1,330	\$	1,330

The following table is a summary of changes in the carrying amount of permits for the years ended December 31, 2002, 2003, and 2004 (amounts in thousands). Our Engineering segment has been excluded as it has no permits recorded.

	In	dustrial	Nuclear	
Permits	S	egment	Segment	Total
Balance as of January 1, 2002	\$	6,434	\$ 14,205	\$ 20,639
Permits acquired		_	63	63
Permits in progress		73		73
Reclass of accumulated amortization		(16)		 (16)
Balance as of December 31, 2002		6,491	14,268	20,759
Permits in progress		161		161
Permits obtained		_	9	9
Reclass of permits to asset retirement costs (Notes 2 and 9)		(170)	(4,079)	 (4,249)
Balance as of December 31, 2003		6,482	10,198	16,680
Permits in progress		3	328	331
Impairment of permits		(4,116)		(4,116)
Balance as of December 31, 2004	\$	2,369	\$ 10,526	\$ 12,895

# NOTE 4 ACQUISITIONS

On March 23, 2004, our subsidiary, Perma-Fix of Maryland, Inc. ("PFMD") completed it's acquisition of certain assets of USL Environmental Services, Inc. d/b/a A&A Environmental ("A&A"), primarily located in Baltimore, Md., and our subsidiary, Perma-Fix of Pittsburgh, Inc. ("PFP") completed its acquisition of certain assets of US Liquids of Pennsylvania, Inc. d/b/a EMAX ("EMAX"). Both A&A and EMAX are wholly owned subsidiaries of US Liquids Inc. ("USL"). PFMD is using the acquired assets of A&A to provide a full line of environmental, marine and industrial maintenance services. PFMD offers expert environmental services such as 24-hour emergency response, vacuum services, hazardous and non-hazardous waste disposal, marine environmental and other remediation services. PFP is utilizing the acquired assets of EMAX to provide a variety of environmental services such as transportation of drums and bulk loads, tank cleaning, industrial maintenance, dewatering, drum management and chemical packaging. PFP also has a wastewater treatment group, which provides for the treatment of non-hazardous wastewaters such as leachates, oily waters, industrial process waters and off-spec products.

We paid \$2,915,000 in cash for the acquired assets and assumed certain liabilities of A&A and EMAX. The acquisitions were accounted for using the purchase method effective March 23, 2004, and accordingly, the estimated fair values of the assets acquired and liabilities assumed as of this date, and the results of operations since this date, were included in the accompanying consolidated financial statements. As of March 23, 2004, we performed preliminary purchase price allocations based upon information available as of that date. Costs incurred related to the acquisitions were \$275,000 and are included in our purchase price allocation as liabilities assumed. We subsequently obtained third party evaluations of certain assets and at December 31, 2004, finalized our purchase price allocation to the net assets acquired and the net liabilities assumed, as follows:

 PFMD	PFP_		
\$ 2,457 \$	24		
1,810	413		
(1,141)	(107)		
(391)	(150)		
\$ 2,735 \$	180		
_	1,810 (1,141) (391)		

The third party evaluations resulted in higher fair values for property and equipment than was allocable to those assets based upon the purchase price of such assets and, as such, we reduced on a pro rata basis the value of the property and equipment to their final book values, as recorded through purchase accounting.

# NOTE 5 DISCONTINUED OPERATIONS

On October 4, 2004, our Board of Directors approved the discontinuation of operations at the facility in Detroit, Michigan, owned by our subsidiary, Perma-Fix of Michigan, Inc. ("PFMI"). The decision to discontinue operations at the Detroit facility was principally as a result of two fires that significantly disrupted operations at the facility in 2003, and the facility's continued drain on the financial resources of our Industrial segment. We are in the process of remediating the facility and evaluating our available

options for future use or sale of the property. The operating activities for the current and prior periods have been reclassified to discontinued operations in our Consolidated Statements of Operations.

PFMI recorded revenues of \$1,569,000 and \$5,739,000, and operating losses of \$635,000 and \$526,000 for the year ended December 31, 2004 and 2003, respectively. Our operating losses for 2004 were reduced by an insurance claim we submitted for business interruption from the second fire. The claim recorded against expenses in December 2004, was \$1,130,000, an increase to the previous amount of \$455,000. Our estimated loss on disposals from discontinued operations of \$9,178,000 for the year ended December 31, 2004, consisted of asset impairments, pension costs, environmental remediation and other expenses as described in the following table:

	Noncash		Total
(Amounts in thousands)	Charges	Accruals	Charges
Pension plan withdrawal liability	\$ —	\$ 1,680	\$ 1,680
Environmental closure and remediation accrual		2,373	2,373
Tangible asset impairment	4,633		4,633
Severance and other payroll related liabilities		256	256
Other		236	236
Loss on disposal from discontinued operations	\$ 4,633	\$ 4,545	\$ 9,178

The pension plan withdrawal liability is a result of the termination of substantially all of the union employees of PFMI. The PFMI union employees participate in the Central States Teamsters Pension Fund ("CST"), which provides that a partial or full termination of union employees may result in a withdrawal liability, due from PFMI to CST. We recorded a \$1,474,000 pension withdrawal liability at September 30, 2004, based upon a withdrawal letter received from CST Fund. The estimated calculation contained within the withdrawal letter was based upon a 2004 withdrawal date. We subsequently engaged an actuarial firm to confirm and update the calculation through December 31, 2004. Based upon this actuarial study, we increased the pension withdrawal liability to \$1,680,000 at December 31, 2004. This withdrawal liability represents our best estimate, and is subject to numerous factors such as the date and timing of union employee terminations, partial versus complete termination status, the pension funds unfunded vested benefit liability and PFMI's portion of such liability. This obligation was recorded as a current liability but may not be paid out in the current year, due to the timing of the termination event and process of determining the final liability. The tangible asset impairment is our write down of tangible fixed assets as of September 30, 2004, such as property, plant, and equipment to our estimate of fair value. Based upon the valuations performed subsequent to September 30, 2004, pursuant to SFAS 142, the property, plant, and equipment appear to have a much greater value, which could be realized upon the sale of the facility. Other costs consist of estimated amounts to be paid to close the facility and remediate the property. We previously allocated an intangible asset impairment of \$929,000 based on the value of PFMI compared to the remainder of the Industrial segment, pursuant to preliminary third party appraisals. Upon completion of the final SFAS 142 impairment test, as of October 1, 2004, the third party appraisers determined the value of PFMI was negative at that time, and as such no goodwill or permits were allocable to PFMI to be impaired. Therefore, during the fourth quarter the \$929,000 impairment of intangible assets originally allocated to discontinued operations, was reclassified and included in the \$9,002,000 impairment loss on intangible assets of the Industrial segment in continuing operations.

As a result of the discontinuation of operations at the PFMI facility, we are required to complete certain closure and remediation activities pursuant to our RCRA permit. Also, in order to close and dispose of or sell the facility, we may have to complete certain additional remediation activities related to the land, building, and equipment. The extent and cost of the clean-up and remediation will be determined by state mandated requirements, the extent to which are not known at this time. Also, impacting this estimate is the

level of contamination discovered, as we begin remediation, and the related clean-up standards which must be met in order to dispose of or sell the facility. We engaged our engineering firm, SYA, to perform an analysis and related estimate of the cost to complete the RCRA portion of the closure/clean-up costs and the potential long-term remediation costs. Based upon this analysis, we recorded an additional \$2,373,000 to arrive at our best estimate of the cost of this environmental closure and remediation liability of \$2,464,000. During the fourth quarter of 2004, we spent approximately \$116,000 of this closure cost estimate. In the event we retain PFMI, we anticipate spending \$544,000 in 2005 and the remainder over the next two to five years.

Assets and liabilities related to the discontinued operation have been reclassified to separate categories in the Consolidated Balance Sheets as of December 31, 2004 and 2003. As of December 31, 2004, assets are recorded at their net realizable value, and consist of property, plant, and equipment of \$600,000, accounts receivable of \$24,000, and insurance proceeds receivable of \$1,585,000. We have submitted three insurance claims relative to the two fires at PFMI, a property claim for the first fire and a property claim and business interruption claim for the second fire. During the fourth quarter, we finalized our negotiations with the insurance carrier on the business interruption claim and recorded an additional \$1,130,000 receivable, an increase to the previous receivable amount of \$455,000. We are currently negotiating settlements for the remaining two claims, but at this time we cannot estimate actual proceeds to be received. Additional proceeds, if any, received on these remaining claims will be recorded as income from discontinued operations. Liabilities as of December 31, 2004, consist of accounts payable and current accruals of \$2,006,000 and environmental accruals of \$2,348,000.

# NOTE 6 PREFERRED STOCK ISSUANCE AND CONVERSION

#### Series 17 Preferred

As of January 1, 2002, Capital Bank held 2,500 shares of the Series 17 Preferred record, as agent for certain of its accredited investors. The Series 17 Preferred may be converted into shares of Common Stock at any time at a conversion price of \$1.50 per share, subject to adjustment as set forth in the Certificate of Designations relating to the Series 17 Preferred. The Series 17 Preferred has a "stated value" of \$1,000 per share. We may, at our sole option, redeem, in whole or in part, at any time, and from time to time the then outstanding Series 17 Preferred at \$1,200 per share. Upon any notice of redemption, Capital Bank shall have only five business days to exercise its conversion rights regarding the redeemed shares.

The Series 17 Preferred accrues dividends on a cumulative basis at a rate of 5% per annum which dividends are payable semiannually when and as declared by the Board of Directors. During 2004, approximately \$125,000 of dividends were accrued on the Series 17 Preferred of which \$62,000 were paid in the form of 32,938 shares of Common Stock, and \$63,000 were paid in March 2005.

# **Series B Preferred Stock**

As partial consideration of the M&EC Acquisition, M&EC issued shares of its Series B Preferred Stock to stockholders of M&EC having a stated value of approximately \$1,285,000. No other shares of M&EC's Series B Preferred Stock are outstanding. The Series B Preferred Stock is non-voting and non-convertible, has a \$1.00 liquidation preference per share and may be redeemed at the option of M&EC at any time after one year from the date of issuance for the per share price of \$1.00. Following the first 12 months after the original issuance of the Series B Preferred Stock, the holders of the Series B Preferred Stock will be entitled to receive, when, as, and if declared by the Board of Directors of M&EC out of legally available funds, dividends at the rate of 5% per year per share applied to the amount of \$1.00 per share, which shall be fully cumulative. We began accruing dividends for the Series B Preferred Stock in

July 2002, and have accrued a total of approximately \$162,000 since July 2002, of which \$64,000 was accrued in 2004 and 2003.

# NOTE 7 LONG-TERM DEBT

Long-term debt consists of the following at December 31, 2004, and December 31, 2003:

(Amounts in Thousands)	2004	2003
Revolving Credit facility dated December 22, 2000, borrowings based upon eligible accounts receivable, subject to monthly borrowing base calculation, variable interest paid monthly at prime rate plus 1% (6.25% at December 31, 2004), beginning in March 2005, the interest rate will be reduced to prime rate plus ½ %, balance due in May 2008.	\$ 6,480	\$ 9,235
<b>Term Loan</b> dated December 22, 2000, payable in equal monthly installments of principal of \$83, balance due in May 2008, variable interest paid monthly at prime rate plus 1½ % (6.75% at December 31, 2004). Beginning in March 2005, the interest rate will be reduced to prime rate plus 1%.	3,083	4,083
<b>Three promissory notes</b> dated May 27, 1999, payable in equal monthly installments of principal and interest of \$90 over 60 months. Repaid in full in June, 2004.	_	531
<b>Unsecured promissory note</b> dated August 31, 2000, payable in lump sum in August 2005, interest paid annually at 7.0%.	3,500	3,500
Senior subordinated notes dated July 31, 2001, payable in lump sum on July 31, 2006, interest payable quarterly at an annual interest rate of 13.5%, net of unamortized debt discount of \$838 at December 31, 2003. Notes were repaid in full in August, 2004.	_	4,787
<b>Promissory note</b> dated June 25, 2001, payable in semiannual installments on June 30 and December 31 through December 31, 2008, variable interest accrues at the applicable rate determined under the IRS Code Section (7.0% on December 31, 2004) and is payable in one lump sum at the end of installment period.	3,034	3,354
<b>Installment agreement</b> dated June 25, 2001, payable in semiannual installments on June 30 and December 31 through December 31, 2008, variable interest accrues at the applicable rate determined under the IRS Code Section (7.0% on December 31, 2004) and is payable in one lump sum at the end of installment period.	753	833
Various capital lease and promissory note obligations, payable 2005 to 2008, interest at rates ranging from 5.2% to 17.9%.	2,106	2,765
Less current portion of long-term debt	18,956 6,376	29,088 2,896
	\$ 12,580	\$ 26,192

# **Revolving Credit and Term Loan Agreement**

On December 22, 2000, we entered into a Revolving Credit, Term Loan and Security Agreement ("Agreement") with PNC Bank, National Association, a national banking association ("PNC") acting as agent ("Agent") for lenders, and as issuing bank. The Agreement provides for a term loan ("Term Loan") in the amount of \$7,000,000, which requires principal repayments based upon a seven-year amortization,

payable over five years, with monthly installments of \$83,000 and the remaining unpaid principal balance due on December 22, 2005. The Agreement also provided for a revolving line of credit ("Revolving Credit") with a maximum principal amount outstanding at any one time of \$18,000,000, as amended. The Revolving Credit advances are subject to limitations of an amount up to the sum of (a) up to 85% of Commercial Receivables aged 90 days or less from invoice date, (b) up to 85% of Commercial Broker Receivables aged up to 120 days from invoice date, (c) up to 85% of acceptable Government Agency Receivables aged up to 150 days from invoice date, and (d) up to 50% of acceptable unbilled amounts aged up to 60 days, less (e) reserves Agent reasonably deems proper and necessary. The loans are subject to a prepayment fee of 1 ½ % in the first year, 1% in the second and third years and ¾ % after the third anniversary until termination date. The Revolving Credit advances shall be due and payable in full on December 22, 2005. As of December 31, 2004, the excess availability under our Revolving Credit was \$8,516,000 based on our eligible receivables.

In December 2000, we entered into an interest rate swap agreement related to our Term Loan. This hedge, has effectively fixed the interest rate on the notional amount of \$3,500,000 of the floating rate \$7,000,000 PNC Term Loan. We will pay the counterparty interest at a fixed rate equal to the base rate of 6.25%, for a period from December 22, 2000, through December 22, 2005, in exchange for the counterparty paying us one month LIBOR rate for the same term (2.39% at December 31, 2004). At December 31, 2004, the market value of the interest rate swap was in an unfavorable value position of \$41,000 and was recorded as a liability. During the twelve months ended December 31, 2004, we recorded a gain on the interest rate swap of \$89,000, which was included in other comprehensive income on the Statement of Stockholders' Equity.

On March 15, 2005, the Company entered into a commitment letter with PNC, whereby PNC agreed to renew and extend the agreement, and to increase the term loan back up to \$7.0 million. Effective March 25, 2005, the Company and PNC entered into an amended agreement (Amendment No. 4), which, among other things, extends the \$25 million credit facility through May 31, 2008. The credit facility consists of an \$18 million revolving line of credit and a \$7 million term loan. The new terms of the credit facility remain principally unchanged, with the exception of a 50 basis point reduction in the interest rate on both loans. The increase to the term loan will be handled as a subsequent amendment, subject to the updating of the existing mortgages held by PNC. We expect the mortgage updates to be completed in April 2005, with proceeds of approximately \$4.0 million to be received shortly thereafter. As a condition of this amended agreement, we paid a \$140,000 fee to PNC.

## **Three Promissory Notes**

Pursuant to the terms of stock purchase agreements in connection with the acquisition of Perma-Fix of Orlando, Inc. ("PFO"), Perma-Fix of South Georgia, Inc. ("PFSG") and Perma-Fix of Michigan, Inc. ("PFMI"), a portion of the consideration was paid in the form of the Promissory Notes, in the aggregate amount of \$4,700,000 payable to the former owners of PFO, PFSG and PFMI. The Promissory Notes were paid in full in June, 2004.

#### **Unsecured Promissory Note**

On August 31, 2000, as part of the consideration for the purchase of Diversified Scientific Services, Inc. ("DSSI"), we issued to Waste Management Holdings a long-term unsecured promissory note (the "Unsecured Promissory Note") in the aggregate principal amount of \$3,500,000, bearing interest at a rate of 7% per annum and having a five-year term with interest to be paid annually and principal due in one lump sum at the end of the term of the Unsecured Promissory Note (August 2005). We plan to utilize the proceeds of the amended agreement with PNC, mentioned above, to repay this balance.

#### **Senior Subordinated Notes**

On July 31, 2001, we issued approximately \$5.6 million in 13.50% Senior Subordinated Notes due July 31, 2006 (the "Notes"). The Notes were issued pursuant to the terms of a Note and Warrant Purchase Agreement dated July 31, 2001 (the "Purchase Agreement"), between Associated Mezzanine Investors - PESI, L.P. ("AMI"), Bridge East Capital, L.P. ("BEC"), and us. The Notes were unsecured and were unconditionally guaranteed by our subsidiaries. The Notes were paid in full in August, 2004. We also paid early termination fees of \$190,000 and recorded a non-cash expense of \$1,217,000 for the write-off of unamortized prepaid financing fees and a debt discount.

Under the terms of the Purchase Agreement, we also issued to AMI and BEC Warrants to purchase up to 1,281,731 shares of our Common Stock ("Warrant Shares") at an initial exercise price of \$1.50 per share (the "Warrants"), subject to adjustment under certain conditions which were valued at \$1,622,000. The Warrants, as issued, also contain a cashless exercise provision. The Warrant Shares are registered under an S-3 Registration Statement that was declared effective on November 27, 2002.

In connection with the sale of the Notes, we entered into an Option Agreement with AMI and BEC, dated July 31, 2001 (the "Option Agreement"). Pursuant to the Option Agreement, we granted each purchaser an irrevocable option requiring us to purchase any of the Warrants or the shares of Common Stock issuable under the Warrants (the "Warrant Shares") then held by the purchaser (the "Put Option"). The Put Option may be exercised at any time commencing July 31, 2004, and ending July 31, 2008. In addition, each purchaser granted to us an irrevocable option to purchase all the Warrants or the Warrant Shares then held by the purchaser (the "Call Option"). The Call Option may be exercised at any time commencing July 31, 2005, and ending July 31, 2008. The purchase price under the Put Option and the Call Option is based on the quotient obtained by dividing (a) the sum of six times our consolidated EBITDA for the period of the 12 most recent consecutive months minus Net Debt plus the Warrant Proceeds by (b) our Diluted Shares (as the terms EBITDA, Net Debt, Warrant Proceeds, and Diluted Shares are defined in the Option Agreement). At December 31, 2004, and 2003, the Put Option had no value and no liability was recorded.

# **Promissory Note**

In conjunction with our acquisition of M&EC, M&EC issued a promissory note for a principal amount of \$3.7 million to Performance Development Corporation ("PDC"), dated June 25, 2001, for monies advanced to M&EC for certain services performed by PDC. The promissory note is payable over eight years on a semiannual basis on June 30 and December 31. The principal repayments for 2005 will be approximately \$400,000 semiannually. Interest is accrued at the applicable law rate ("Applicable Rate") pursuant to the provisions of section 6621 of the Internal Revenue Code of 1986 as amended, (7% on December 31, 2004) and payable in one lump sum at the end of the loan period. On December 31, 2004, the outstanding balance was \$4,099,000, including accrued interest of approximately \$1,065,000. PDC has directed M&EC to make all payments under the promissory note directly to the IRS to be applied to PDC's obligations under its installment agreement with the IRS.

#### **Installment Agreement**

Additionally, M&EC entered into an installment agreement with the Internal Revenue Service ("IRS") for a principal amount of \$923,000 effective as of June 25, 2001, for certain withholding taxes owed by M&EC. The installment agreement is payable over eight years on a semiannual basis on June 30 and December 31. The principal repayments for 2004 will be approximately \$100,000 semiannually. Interest is accrued at the Applicable Rate. Such rate is adjusted on a quarterly basis and payable in lump sum at the end of the installment period. On December 31, 2004, the rate was 7%. On December 31, 2004, the outstanding balance was \$1,010,000 including accrued interest of approximately \$257,000.

The aggregate approximate amount of the maturities of long-term debt maturing in future years as of December 31, 2004, is \$6,376,000 in 2005; \$9,067,000 in 2006; \$2,334,000 in 2007; \$1,155,000 in 2008; and \$24,000 in 2009.

# NOTE 8 ACCRUED EXPENSES

Accrued expenses at December 31 include the following (in thousands):

•	2 (	2004	2003
Salaries and employee benefits		\$ 3,405	\$ 3,201
Accrued sales, property and other tax		826	596
Waste disposal and other operating related expenses		7,678	7,010
Other		191	 331
Total accrued expenses		\$ 12,100	\$ 11,138

# NOTE 9 ACCRUED CLOSURE COSTS

We accrue for the estimated closure costs as determined pursuant to RCRA guidelines for all fixed-based regulated facilities, even though we do not intend to or have present plans to close any of our existing facilities. The permits and/or licenses define the waste, which may be received at the facility in question, and the treatment or process used to handle and/or store the waste. In addition, the permits and/or licenses specify, in detail, the process and steps that a hazardous waste or mixed waste facility must follow should the facility be closed or cease operating as a hazardous waste or mixed waste facility. Closure procedures and cost calculations in connection with closure of a facility are based on guidelines developed by the federal and/or state regulatory authorities under RCRA and the other appropriate statutes or regulations promulgated pursuant to the statutes. The closure procedures are very specific to the waste accepted and processes used at each facility. We recognize the closure cost as a contingent liability on the balance sheet. Since all our facilities are acquired facilities, the closure cost for each facility was recognized pursuant to a business combination and recorded as part of the purchase price allocation to assets acquired and liabilities assumed.

The closure calculation is increased annually for inflation based on RCRA guidelines, and for any approved changes or expansions to the facility, which may result in either an increase or decrease in the approved closure amount. An increase resulting from changes or expansions is recorded to expense over the term of such a renewed/expanded permit, generally five (5) years, and annual inflation factor increases are expensed during the current year.

During 2004, the accrued long-term closure cost increased by \$188,000 to a total of \$5,062,000 as compared to the 2003 total of \$4,874,000. This increase is principally a result of normal inflation factor increases.

Statements of Financial Accounting Standard No. 143, *Accounting for Asset Retirement Obligations*, ("SFAS 143") requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made, and that the associated asset retirement costs be capitalized as part of the carrying amount of the long-lived asset. In conjunction with the state mandated permit and licensing requirements, we are obligated to determine our best estimate of the cost to close, at some undetermined future date, our permitted and/or licensed facilities. We recorded this liability at the date of acquisition of each facility, with its offsetting entry

being to goodwill and/or permits and have subsequently increased this liability as a result of changes to the facility and/or for inflation. Our current accrued closure costs reflect the current fair value of the cost of asset retirement. We adopted SFAS 143 as of January 1, 2003, and pursuant to the adoption we reclassified from goodwill and permits approximately \$4,559,000 (see Note 3), which represents the fair value of our closing cost as recorded to goodwill or permits at the time each facility was acquired, into an asset retirement obligation account. The associated asset retirement cost is recorded as property and equipment (buildings). We are depreciating the asset retirement cost on a straight-line basis over a period of 50 years. The new standard did not have a material impact on net income during 2003, nor would it have had a material impact in 2002 and 2001 assuming an adoption of this accounting standard on January 1, 2001.

# NOTE 10 ENVIRONMENTAL LIABILITIES

We have various remediation projects, which are currently in progress at certain of our permitted Industrial segment facilities owned and operated by our subsidiaries. These remediation projects principally entail the removal of contaminated soil and, in some cases, the remediation of surrounding ground water. Five of the remedial clean-up projects in question were an issue for that facility for years prior to our acquisition of the facility and were recognized pursuant to a business combination and recorded as part of the purchase price allocation to assets acquired and liabilities assumed. Three of the facilities, (PFD, PFM, and PFSG) are RCRA permitted facilities, and as a result, the remediation activities are closely reviewed and monitored by the applicable state regulators. Additionally, we recorded environmental liabilities upon acquisition of PFMD and PFP in March 2004, which are not RCRA permitted facilities. We have recognized our best estimate of such environmental liabilities upon the acquisition of these five facilities, as part of the acquisition cost. In the normal course of our business, the operations will on occasion create a minor environmental remediation issue, which will be evaluated and a corresponding remedial liability recorded. Minor environmental remediation liabilities were recognized and recorded for the PFTS and PFFL facilities during 2004. As further discussed in the discontinued operations footnote, we accrued environmental liabilities for PFMI, our discontinued operation (see Note 5).

At December 31, 2004, we had accrued environmental liabilities totaling \$2,862,000, at our continuing operations, which reflects an increase of \$287,000 from the December 31, 2003, balance of \$2,575,000. The increase is a result of environmental liabilities recorded when we acquired PFMD and PFP in March 2004. The increase is partially offset by payments on the remediation projects. We also have accrued environmental liabilities of \$2,348,000 for PFMI, our discontinued operation. The December 31, 2004 current and long-term accrued environmental balance is recorded as follows:

	Current	Long-term	
	Accrual	Accrual	Total
PFD	\$ 110,000	\$ 612,000	\$ 722,000
PFM	302,000	434,000	736,000
PFSG	257,000	512,000	769,000
PFTS	27,000	42,000	69,000
PFFL	25,000		25,000
PFMD		391,000	391,000
PFP	 	 150,000	150,000
	 721,000	 2,141,000	 2,862,000
PFMI	 544,000	 1,804,000	 2,348,000
	\$ 1,265,000	\$ 3,945,000	\$ 5,210,000

# **PFD**

In June 1994, we acquired from Quadrex Corporation and/or a subsidiary of Quadrex Corporation (collectively, "Quadrex") three treatment, storage and disposal companies, including the PFD facility. The former owners of PFD had merged EPS with PFD, which was subsequently sold to Quadrex. Through our acquisition of PFD in 1994 from Quadrex, we were indemnified by Quadrex for costs associated with remediating this facility leased by PFD ("Leased Property") but never used or operated by PFD, which entails remediation of soil and/or groundwater restoration. The Leased Property used by EPS to operate its facility is separate and apart from the property on which PFD's facility is located. In conjunction with the subsequent bankruptcy filing by Quadrex, and our recording of purchase accounting for the acquisition of PFD, we recognized an environmental liability of approximately \$1,200,000 for the remediation of this leased facility. This facility has pursued remedial activities for the past seven years and after evaluating various technologies, is seeking approval from appropriate governmental authority for the final remedial process, through the utilization of third party consultants, which should extend for two to three years after approval by the appropriate governmental authorities of the final remedial process. For the year ended December 31, 2004, we decreased the reserve by approximately \$33,000, a result of payments on remedial evaluation and planning efforts. We anticipate spending for the remaining remedial activity over the next two to five years.

#### **PFM**

Pursuant to our acquisition, effective December 31, 1993, of Perma-Fix of Memphis, Inc. (f/k/a American Resource Recovery, Inc.), we assumed certain liabilities relative to the removal of contaminated soil and to undergo groundwater remediation at the facility. Prior to our ownership of Perma-Fix of Memphis, Inc., the owners installed monitoring and treatment equipment to restore the groundwater to acceptable standards in accordance with federal, state and local authorities. The groundwater remediation at this facility has been ongoing since approximately 1990, and, subject to the approval of the appropriate agency, Perma-Fix of Memphis, Inc. intends to begin final remediation of this facility. For the year ended December 31, 2004, we incurred \$83,000 in remedial evaluation and planning costs, which reduced the reserve. Our anticipated spending on the remaining remedial activities will be over the next two to five years.

## **PFSG**

During 1999, we recognized an environmental accrual of \$2,199,000, in conjunction with the acquisition of PFSG. This amount represented our estimate of the long- term costs to remove contaminated soil and to undergo groundwater remediation activities at the PFSG acquired facility in Valdosta, Georgia. PFSG, in conjunction with third party consultants, have over the past four years, completed the initial valuation, selected the remedial process to be utilized, and completed the planning and approval process. Remedial activities began in 2003. For the year ended December 31, 2004, we incurred \$143,000 in remediation costs, which reduced the reserve. We anticipate our spending for the remaining remedial activities to be incurred over the next two to three years.

#### PFTS

In conjunction with an oil spill, we have accrued as of December 31, 2004, approximately \$69,000 to remediate the contaminated soil and ground water at this location. We expect to complete spending on this remedial project over the next two years.

#### **PFFI**

We have accrued \$25,000 to remediate contaminated soil on property adjacent to our PFFL property. We anticipate spending on this remedial activity to be completed in 2005.

# **PFMD**

In conjunction with the acquisition of PFMD in March 2004, we accrued for long-term environmental liabilities of \$391,000 as a best estimate of the cost to remediate the hazardous and/or non-hazardous contamination on certain properties owned by PFMD. This facility is not a RCRA facility, and is currently under no obligation to clean up the contamination. We do not intend to begin remediation in the immediate future, but if environmental regulations change, we could be forced to begin clean up of such contamination.

#### **PFP**

In conjunction with the acquisition of PFP in March 2004, we accrued \$150,000 in environmental liabilities as our best estimate of the cost to remediate and restore this leased property back to its original condition. The liability estimate is based on an environmental assessment completed by a third party as part of the due diligence work prior to acquisition. The Company operates a non-hazardous waste water facility on this leased property. We are currently under no obligation, and do not intend, to begin remediation of this leased property. However, upon termination of our lease or closure of this operation, such remediation, restoration, and equipment removal will be required.

#### **PFMI**

As a result of the discontinuation of operation at the PFMI facility, we are required to complete certain closure and remediation activities pursuant to our RCRA permit. Also, in order to close and dispose of or sell the facility, we may have to complete certain additional remediation activities related to the land, building, and equipment. The extent and cost of the clean-up and remediation will be determined by state mandated requirements, the extent to which are not known at this time. Also, impacting this estimate is the level of contamination discovered, as we begin remediation, and the related clean-up standards which must be met in order to dispose of or sell the facility. We engaged our engineering firm, SYA, to perform an analysis and related estimate of the cost to complete the RCRA portion of the closure/clean-up costs and the potential long-term remediation costs. Based upon this analysis, we recorded our best estimate of the cost of this environmental closure and remediation liability, of \$2,464,000. We are unclear as to the extent of remediation necessary to dispose of or sell the facility and to what extent the state will require us to remediate the contamination. However, in the event of a sale of the facility all or part of this reserve could be reduced. During the fourth quarter of 2004, we spent approximately \$116,000 of this closure cost estimate. In the event we retain PFMI, we anticipate spending \$544,000 in 2005 and the remainder over the next two to five years.

We performed, or had performed, due diligence on each of these environmental projects, and also reviewed/utilized reports obtained from third party engineering firms who have been either engaged by the prior owners or by us to assist in our review. Based upon our expertise and the analysis performed, we have accrued our best estimate of the cost to complete the remedial projects. No insurance or third party recovery was taken into account in determining our cost estimates or reserve, nor do our cost estimates or reserves reflect any discount for present value purposes. We do not believe that any adverse changes to our estimates would be material to us. The circumstances that could affect the outcome range from new technologies, that are being developed every day that reduce our overall costs, to increased contamination levels that could arise as we complete remediation which could increase our costs, neither of which we anticipate at this time.

# NOTE 11 INCOME TAXES

We had temporary differences and net operating loss carry forwards, which gave rise to deferred tax assets and liabilities at December 31, as follows (in thousands):

	2004	2003
Deferred tax assets:		
Net operating losses	\$ 9,962 \$	7,847
Environmental and closure reserves	2,348	1,172
Impairment of assets	7,611	7,611
Other	1,010	1,061
Valuation allowance	(13,912)	(9,966)
Deferred tax assets	7,019	7,725
Deferred tax liabilities		
Depreciation and amortization	(7,019)	(7,725)
Net deferred tax asset (liability)	<u> </u>	<u> </u>

A reconciliation between the expected tax benefit using the federal statutory rate of 34% and the provision for income taxes as reported in the accompanying consolidated statements of operations is as follows (in thousands):

	2004	2003	2002
Tax expense (benefit) at statutory rate	\$ (6,647)	\$ 1,060 \$	749
Intangible asset impairment	3,061		_
Other	(360)	(831)	(119)
Increase (decrease) in valuation allowance	3,946	(229)	(630)
Provision for income taxes	<u> </u>	<u>\$</u>	

We have recorded a valuation allowance to state our deferred tax assets at estimated net realizable value due to the uncertainty related to realization of these assets through future taxable income. Our valuation allowance increased (decreased) by approximately \$3,946,000, \$(229,000) and \$(630,000), for the years ended December 31, 2004, 2003, and 2002, respectively, which represents the effect of changes in the temporary differences and net operating losses (NOLs), as amended. Included in deferred tax assets is an impairment of assets for \$7,611,000, of which approximately \$7,051,000 is in conjunction with our acquisition of DSSI in August 2000. This deferred tax asset is a result of an impairment charge related to fixed assets and goodwill of approximately \$24.5 million recorded by DSSI in 1997 prior to our acquisition of DSSI. This write-off will not be deductible for tax purposes until the assets are disposed.

We have estimated net operating loss carryforwards (NOL's) for federal income tax purposes of approximately \$29,300,000 at December 31, 2004. These net operating losses can be carried forward and applied against future taxable income, if any, and expire in the years 2007 through 2024. However, as a result of various stock offerings and certain acquisitions, the use of these NOLs will be limited under the provisions of Section 382 of the Internal Revenue Code of 1986, as amended. According to Section 382, we have approximately \$15.4 million in total NOLs available to offset consolidated taxable income for the tax year ended December 31, 2004. For each subsequent year that the pre-1996 NOLs remain unused, an additional \$1,049,070 will become available to offset consolidated taxable income. Additionally, NOLs may be further limited under the provisions of Treasury Regulation 1.1502-21 regarding Separate Return Limitation Years.

# NOTE 12 CAPITAL STOCK, EMPLOYEE STOCK PLAN AND INCENTIVE COMPENSATION

#### **Private Placement**

On March 22, 2004, we completed a private placement for gross proceeds of approximately \$10,386,000 through the sale of 4,616,113 shares of our Common Stock at \$2.25 per share and Warrants to purchase an additional 1,615,638 shares of our Common Stock exercisable at \$2.92 per share and a term of three years. The private placement was sold to fifteen accredited investors. The net cash proceeds received of \$9,870,000, after paying placement agent fees and other related expenses, were used in connection with the acquisitions of certain acquired assets of A&A and EMAX discussed above, and to pay down the Revolving Credit. We subsequently utilized excess availability under our Revolving Credit, resulting from this private placement, to repay the higher interest 13.5% Notes. We also issued Warrants to purchase an aggregate of 160,000 shares of our Common Stock, exercisable at \$2.92 per share and with a three year term, for consulting services related to the private placement.

# **Employee Stock Purchase Plan**

At our Annual Meeting of Stockholders ("Annual Meeting") as held on December 12, 1996, the stockholders approved the adoption of the Perma-Fix Environmental Services, Inc. 1996 Employee Stock Purchase Plan. This plan provides our eligible employees, who wish to become stockholders, an opportunity to purchase our Common Stock through payroll deductions. The maximum number of shares of our Common Stock that may be issued under the plan was 500,000 shares. The plan provided that shares would be purchased two times per year and that the exercise price per share shall be 85% of the market value of each such share of Common Stock on the offering date on which such offer commences or on the exercise date on which the offer period expires, whichever is lowest. The first purchase period commenced July 1, 1997. The maximum number of shares available was issued after the first offering period in 2004, with no additional shares issuable under the plan. The following table details the resulting employee stock purchase totals.

			Shares
Purchase Period	_	Proceeds	Purchased
July 1 – December 31, 1997	\$	16,000	8,276
January 1 – June 30, 1998		17,000	10,732
July 1 – December 31, 1998		22,000	17,517
January 1 – June 30, 1999		28,000	21,818
July 1 – December 31, 1999		49,000	48,204
January 1 – June 30, 2000		54,000	53,493
July 1 – December 31, 2000		52,000	46,632
January 1 – June 30, 2001		48,000	43,324
July 1 – December 31, 2001		69,000	33,814
January 1 – June 30, 2002		94,000	42,917
July 1 – December 31, 2002		92,000	43,243
January 1 – June 30, 2003		91,000	57,620
July 1 – December 31, 2003		76,000	44,799
January 1 – June 30, 2004		42,000	27,611

At our Annual Meeting of Stockholders held on July 29, 2003, our stockholders approved the adoption of the Perma-Fix Environmental Services, Inc. 2003 Employee Stock Purchase Plan. The terms and conditions of this 2003 plan principally represent the same terms and conditions as the previous 1996 plan. The plan provides our eligible employees an opportunity to become stockholders and purchase our

Common Stock through payroll deductions. The maximum number of shares issuable under this plan is 1,500,000. The Plan authorized the purchase of shares two times per year, at an exercise price per share of 85% of the market price of our Common Stock on the offering date of the period or on the exercise date of the period, whichever is lower. The first purchase period commenced July 1, 2004, which resulted in the issuance for the period ended December 31, 2004, of 31,287 shares purchased in February 2005 for proceeds of \$47,000.

# **Employment Options**

During October 1997, Dr. Centofanti entered into an Employment Agreement, which expired in October 2000 and provided for, 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 as follows: (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 in October 2007.

# **Stock Option Plans**

On December 16, 1991, we adopted a Performance Equity Plan (the "Plan"), under which 500,000 shares of our Common Stock is reserved for issuance, pursuant to which officers, directors and key employees are eligible to receive incentive or Non-qualified stock options. Incentive awards consist of stock options, restricted stock awards, deferred stock awards, stock appreciation rights and other stock-based awards. Incentive stock options granted under the Plan are exercisable for a period of up to ten years from the date of grant at an exercise price which is not less than the market price of the Common Stock on the date of grant, except that the term of an incentive stock option granted under the Plan to a stockholder owning more than 10% of the then-outstanding shares of Common Stock may not exceed five years and the exercise price may not be less than 110% of the market price of the Common Stock on the date of grant. All grants of options under the Performance Equity Plan have been made at an exercise price equal to the market price of the Common Stock at the date of grant. On December 16, 2001, the Plan expired. No new options will be issued under the Plan, but the options issued under the Plan prior to the expiration date will remain in effect until their respective maturity dates.

Effective September 13, 1993, we adopted a Non-qualified Stock Option Plan pursuant to which officers and key employees can receive long-term performance-based equity interests in the Company. The maximum number of shares of Common Stock as to which stock options may be granted in any year shall not exceed twelve percent (12%) of the number of common shares outstanding on December 31 of the preceding year, less the number of shares covered by the outstanding stock options issued under our 1991 Performance Equity Plan as of December 31 of such preceding year. The option grants under the plan are exercisable for a period of up to ten years from the date of grant at an exercise price, which is not less than the market price of the Common Stock at date of grant. On September 13, 2003, the plan expired. No new options will be issued under this plan, but the options issued under the Plan prior to the expiration date will remain in effect until their respective maturity dates.

Effective December 12, 1993, we adopted the 1992 Outside Directors Stock Option Plan, pursuant to which options to purchase an aggregate of 100,000 shares of Common Stock had been authorized. This plan provides for the grant of options to purchase up to 5,000 shares of Common Stock for each of our outside directors upon initial election and each re-election. The plan also provides for the grant of additional options to purchase up to 10,000 shares of Common Stock on the foregoing terms to each outside director upon initial election to the Board. The options have an exercise price equal to the closing trading price, or, if not available, the fair market value of the Common Stock on the date of grant. During our annual meeting held on December 12, 1994, the stockholders approved the Second Amendment to our 1992 Outside Directors Stock Option Plan which, among other things, (i) increased from 100,000 to

250,000 the number of shares reserved for issuance under the plan, and (ii) provides for automatic issuance to each of our directors, who is not our employee, a certain number of shares of Common Stock in lieu of 65% of the cash payment of the fee payable to each director for his services as director. The Third Amendment to the Outside Directors Plan, as approved at the December 1996 Annual Meeting, provided that each eligible director shall receive, at such eligible director's option, either 65% or 100% of the fee payable to such director for services rendered to us as a member of the Board in Common Stock. In either case, the number of shares of our Common Stock issuable to the eligible director shall be determined by valuing our Common Stock at 75% of its fair market value as defined by the Outside Directors Plan. The Fourth Amendment to the Outside Directors Plan, was approved at the May 1998 Annual Meeting and increased the number of authorized shares from 250,000 to 500,000 reserved for issuance under the plan.

Effective July 29, 2003, we adopted the 2003 Outside Directors Stock Plan, which was approved by our stockholders at the Annual Meeting of Stockholders on such date. A maximum of 1,000,000 shares of our Common Stock are authorized for issuance under this plan. The plan provides for the grant of an option to purchase up to 30,000 shares of Common Stock for each outside director upon initial election to the board of directors, and the grant of an option to purchase up to 12,000 shares of Common Stock upon each reelection. The options have an exercise price equal to the closing trade price on the date prior to grant date. The plan also provides for the issuance to each outside director a number of shares of Common Stock in lieu of 65% or 100% of the fee payable to the eligible director for services rendered as a member of the board of directors. The number of shares issued is determined at 75% of the market value as defined in the plan.

Effective July 28, 2004, we adopted the 2004 Stock Option Plan, which was approved by our stockholders at the Annual Meeting of Stockholders on such date. A maximum of 2,000,000 shares of our Common Stock are authorized for issuance under this plan in the form of either incentive or non-qualified stock options. The option grants under the plan are exercisable for a period of up to 10 years from the date of grant at an exercise price of not less than market price of the Common Stock at grant date.

We applied APB Opinion 25, "Accounting for Stock Issued to Employees," and related interpretations in accounting for options issued to employees and directors. Accordingly, no compensation cost has been recognized for options granted to employees and directors at exercise prices, which equal or exceed the market price of our Common Stock at the date of grant. Should options be granted at exercise prices below market prices, compensation cost is measured and recognized as the difference between market price and exercise price at the date of grant.

A summary of the status of options under the plans as of December 31, 2004, 2003, and 2002 and changes during the years ending on those dates is presented below:

	2004		2003			2002			
	Shares		Weighted Average Exercise Price	Shares		Weighted Average Exercise Price	Shares		Weighted Average Exercise Price
Performance Equity Plan:  Balance at beginning of year Exercised Forfeited Balance at end of year	60,600 (25,000) ——————————————————————————————————	\$	1.17 1.15 — 1.18	87,100 — (26,500) — 60,600	\$	1.43 — 2.04 1.17	174,005 (78,837) (8,068) 87,100	\$	2.14 2.84 3.02 1.43
Options exercisable at year end	35,600		1.18	60,600		1.17	78,500		1.45
Non-qualified Stock Option Plan:  Balance at beginning of year  Granted  Exercised  Forfeited  Balance at end of year  Options exercisable at year end	2,557,390 (171,940) (233,600) 2,151,850 1,151,250	\$	1.79 — 1.33 1.93 1.81 1.62	2,068,900 1,103,000 (294,460) (320,050) 2,557,390 985,140	\$	1.51 2.17 1.19 1.82 1.79	2,237,800 ———————————————————————————————————	\$	1.50 
Weighted average fair value of options granted during the year at exercise prices which equal market price of stock at date of grant				1,103,000		.85			1.42
Balance at end of year Options exercisable at year end	265,000 (45,000) 220,000 220,000	\$	2.27 3.08 2.11 2.11	250,000 15,000 ——————————————————————————————————	\$	2.28 2.02 — 2.27 2.27	255,000 40,000 (45,000) 250,000 225,000	\$	2.34 2.73 3.02 2.28 2.25
Weighted average fair value of options granted during the year at exercise prices which equal market price of stock at date of grant			_	15,000		.84	40,000		1.27
2003 Outside Directors Stock Plan:  Balance at beginning of year Granted Balance at end of year Options exercisable at year end Weighted average fair value of options granted during the year at exercise prices which equal market price of		\$	1.99 1.70 1.86 1.99	90,000	\$	1.99 1.99 —		\$	
stock at date of grant  2004 Stock Option Plan:  Balance at beginning of year  Granted  Balance at end of year	72,000 	\$	.71 	90,000	\$			\$	_ 
Options exercisable at year end Weighted average fair value of options granted during the year at exercise prices which equal market price of stock at date of grant	106,500		.78			_			_

The following table summarizes information about options under the plans outstanding at December 31, 2004:

	Optio	ons Outstandin	Options Exercisable		
	Number	Weighted		Number	
	Outstanding	Average	Weighted	Exercisable	Weighted
	At	Remaining	Average	At	Average
	Dec. 31,	Contractual	Exercise	Dec. 31,	Exercise
Description and Range of Exercise Prices	2004	Life	Price	2004	Price
Performance Equity Plan:					
1996 Awards (\$1.00)	10,000	1.4 years	\$ 1.00	10,000	\$ 1.00
1998 Awards (\$1.25)	25,600	3.8 years	1.25	25,600	1.25
	35,600	3.1 years	1.18	35,600	1.18
Non-qualified Stock Option Plan		-			
1995 Awards (\$2.88)	75,000	0.1 years	2.88	75,000	2.88
1996 Awards (\$1.00)	130,000	1.4 years	1.00	130,000	1.00
1997 Awards (\$1.375)	89,000	2.3 years	1.38	89,000	1.38
1998 Awards (\$1.25)	70,000	3.8 years	1.25	70,000	1.25
2000 Awards (\$1.25-\$1.50)	287,800	5.3 years	1.27	230,200	1.27
2001 Awards (\$1.75)	651,200	6.3 years	1.75	388,000	1.75
2003 Awards (\$2.05-\$2.19)	848,850	8.2 years	2.17	169,050	2.17
,	2,151,850	6.1 years	1.81	1,151,250	1.64
2004 Stock Option Plan					
2004 Awards (\$1.44)	106,500	9.8 years	1.44	_	
1992 Outside Directors Stock Option Plan					
1995 Awards (\$3.25)	20,000	0.1 years	3.25	20,000	3.25
1996 Awards (\$1.75)	35,000	1.9 years	1.75	35,000	1.75
1997 Awards (\$2.125)	15,000	2.9 years	2.13	15,000	2.13
1998 Awards (\$1.375	15,000	3.4 years	1.38	15,000	1.38
1999 Awards (\$1.2188-\$1.25)	35,000	4.7 years	1.24	35,000	1.24
2000 Awards (\$1.688)	15,000	5.9 years	1.69	15,000	1.69
2001 Awards (\$2.43-\$2.75)	30,000	6.6 years	2.59	30,000	2.59
2002 Awards (\$2.58-\$2.98)	40,000	7.6 years	2.73	40,000	2.73
2003 Awards (\$2.02)	15,000	8.3 years	2.02	15,000	2.02
	220,000	4.7 years	2.11	220,000	2.11
2003 Outside Directors Stock Plan:					
2003 Awards (\$1.99)	90,000	8.6 years	1.99	90,000	1.99
2004 Awards (\$1.70)	72,000	9.6 years	1.70	´ —	
` ,	162,000	9.1 years	1.86	90,000	1.99

# Warrants

We have issued various Warrants pursuant to acquisitions, private placements, debt and debt conversion and to facilitate certain financing arrangements. The Warrants principally are for a term of three to five years and entitle the holder to purchase one share of Common Stock for each warrant at the stated exercise price.

In March 2004, we issued warrants for the exercise of 1,775,638 shares of our Common Stock as part of the private placement described earlier in this Note 12. We issued no warrants in 2003 and 2002. During 2004, a total of 618,860 warrants were exercised for proceeds in the amount of \$710,000 and 20,000 warrants expired.

During 2003, a total of 1,555,870 Warrants were exercised for proceeds in the amount of \$2,151,000 and 851,875 Warrants expired. During 2002, a total of 55,000 Warrants were exercised for proceeds in the amount of \$110,000 and 1,500 Warrants expired.

The following details the Warrants currently outstanding as of December 31, 2004:

	Number of	Exercise	
Warrant Series	Underlying Shares	Price	Expiration Date
Consulting Warrants	651,650	\$1.44 - \$1.75	1/05 - 6/06
PNC Financing Warrants	899,536	\$1.44	12/05
BHC Financing Warrants	1,036,175	\$1.44 - \$1.46	1/06 - 3/06
Debt for Equity Exchange Warrants	2,455,687	\$1.75	7/06
Private Placement Warrants	6,235,660	\$1.75 - \$2.92	7/06 - 3/07
AMI and BEC Financing Warrants	1,511,877	\$1.44 - \$1.50	7/06 - 7/08
	12,790,585		

# **Shares Reserved**

At December 31, 2004, we have reserved approximately 17.4 million shares of Common Stock for future issuance under all of the above option and warrant arrangements and the convertible Series 17 Preferred Stock. (See Note 6.)

# NOTE 13 COMMITMENTS AND CONTINGENCIES

#### **Hazardous Waste**

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

# Legal

PFMI, which was purchased by us effective June 1, 1999, has been notified that it is considered a potentially responsible party ("PRP") in four Superfund sites, three of which had no relationship with PFMI according to PFMI records. As to the fourth site, which PFMI has been unable to determine whether PFMI had any relationship with this site, such relationship, if any, would appear to be *de minimus*.

PFO, which was purchased by us in June, 1999, has been notified that it is a PRP in two separate Superfund sites. At the Spectron Superfund site in Elkton, Maryland, PFO has been notified by the EPA that the EPA is seeking reimbursement from all PRPs at the site for the EPA's Phase II cost and to further investigate the contamination at the facility. At this point, we believe that PFO may have sent some waste to the site, but not a substantial amount. At this time, we are unable to determine what exposure, if any, PFO may have in connection with this site.

PFO has also been notified that it is a PRP at the Seaboard Chemical Corporation Superfund Site in Jamestown, North Carolina. In October, 1991, PFO joined the "Seaboard Group," a group of potentially responsible parties organized to clean up the site while keeping costs at a minimum. Initially, PFO was identified as a *de minimus* party under the Seaboard Group agreement which defined a *de minimus* contributor as one acting as either a transporter or generator who was responsible for less than 1% of the waste at the site. However, in June, 1992, the Seaboard Group adopted an amendment to the Seaboard

Group agreement which allows a potentially responsible party who is a generator to participate in the Seaboard Group without relinquishing contributions claims against its broker and/or transporter. Based upon the amount of waste which PFO brokered to the site, PFO's status may no longer considered *deminimus* under the Seaboard Group agreement. PFO is unable to determine what exposure, if any, it may have in connection with this site.

PFFL had previously been advised by the EPA that a release or threatened release of hazardous substances has been documented by the EPA at the former facility of Florida Petroleum Reprocessors (the "Site"), which is located approximately 3,000 feet northwest of the PFFL facility in Davie, Florida. However, studies conducted by, or under the direction of, the EPA, together with data previously provided to PFFL by the EPA, do not indicate that the PFFL facility in Davie, Florida has contributed to the deep groundwater contamination associated with the Site. However, in January 2005, PFFL received a notice letter from the EPA indicating that it was a PRP, and providing a *de minimis* settlement offer. If we accept the settlement offer our liability would be approximately \$40,000. We are in the process of reviewing this claim and our potential exposure in connection with this site.

On February 24, 2003, M&EC, commenced legal proceedings against Bechtel Jacobs Company, LLC, in the chancery court for Knox County, Tennessee, seeking payment from Bechtel Jacobs of approximately \$4.3 million in surcharges relating to certain wastes that were treated by M&EC during 2001 and 2002. M&EC is operating primarily under three subcontracts with Bechtel Jacobs, which were awarded under contracts between Bechtel Jacobs and the U.S. Department of Energy. M&EC and Bechtel Jacobs had been discussing these surcharges under the subcontracts for over a year prior to filing the suit. During 2003, M&EC recognized revenue and recorded a receivable in the amount of \$381,000 related to these surcharges. In 2004, the revenues generated by M&EC with Bechtel Jacobs represented approximately 11.3% of our 2004 total revenues. Since the filing of this lawsuit, Bechtel Jacobs has continued to deliver waste to M&EC for treatment and disposal, and M&EC continues to accept such waste, under the subcontracts, and M&EC and Bechtel Jacobs have entered into an additional contract for M&EC to treat DOE waste. Although we do not believe that this lawsuit will have a material adverse effect on our operations, Bechtel Jacobs could terminate the subcontracts with M&EC, as either party can terminate the subcontracts at any time.

During January 2004, the U.S. Environmental Protection Agency ("EPA") issued to Perma-Fix of Dayton, Inc. ("PFD"), our wholly owned subsidiary, a Notice of Findings of Violations ("Findings") alleging that PFD committed numerous violations of the Clean Air Act (the "Act") or regulations thereunder. On September 28, 2004, PFD received an Administrative Compliance Order ("Order"), dated September 21, 2004, from EPA alleging that PFD was a "major source" of hazardous air pollutants and, as a major source, PFD was required to have obtained a Title V air permit, in connection with its operations, and thereby was not in compliance with provisions of the Act and/or regulations thereunder applicable to a major source, and, as a result, PFD also failed to install proper air pollution equipment and failed to meet certain administrative burdens relating to equipment that was constructed or modified at PFD's facility in 2000 and 2001. The Order further provides that PFD has six months from the effective date of the Order, to develop, submit, obtain and comply with numerous costly and burdensome compliance initiatives applicable to one that is a major source of hazardous air pollutants and to submit an application to the State of Ohio for a Title V Air permit. The Order does not assert any penalties or fines but provides that PFD is not absolved of any liabilities, including liability for penalties, for the alleged violations cited in the Order, and that failure to comply with the Order may subject PFD to penalties up to \$32,500 per day for each violation. PFD had 10 days from the receipt of the Order to request a conference with EPA regarding the Order. PFD has subsequently and timely met with the EPA on several occasions and the EPA and PFD are exchanging information in an effort to resolve this matter. We have retained environmental consultants who have advised us that, based on the tests that they have performed, they do not believe that PFD is a major source of hazardous air pollutants. We have been further advised

by counsel that if PFD is not a major source of hazardous air pollutants, PFD would not be required to obtain a Title V air permit, would not have violated the provisions of the Act alleged in the Order and would not be required to comply with the costly and burdensome compliance initiatives contained in the Order. Also, we have been further advised that the Order may be in violation of certain constitutional issues involving due process based on a recent decision by the United States Court of Appeals, 11<sup>th</sup> Circuit. A determination that PFD was a major source of hazardous air pollutants and required to comply with the Order, such could have a material adverse effect on us. We intend that PFD will vigorously defend itself in connection with this matter.

In December 2004, PFD received a complaint brought under the citizen's suit provisions of the Clean Air Act in the United States District Court for the Southern District of Ohio, Western district, styled Barbara Fisher v. Perma-Fix of Dayton, Inc. The suit alleges violation by PFD of a number of state and federal clean air statutes in connection with the operation of PFD's facility, primarily due to the operating without a Title V air permit, and further alleges that air emissions from PFD's facility endanger the health of the public and constitutes a nuisance in violation of Ohio law. The action seeks injunctive relief, imposition of civil penalties, attorney fees and costs and other forms of relief. We intend to vigorously defend ourselves in connection with this matter. See above discussion as to administrative proceedings instituted by the EPA.

In October 2004, Perma-Fix of South Georgia, Inc. ("PFSG") and Perma-Fix of Orlando, Inc. ("PFO") were notified that they are PRPs at the Malone Service Company Superfund site in Texas City, Texas ("Site"). The EPA designated both PFSG and PFO as *de minimis* parties, which is determined as a generator that contributed less than 0.6% of the total hazardous materials at the Site. The EPA has made a settlement offer to all *de minimis* parties, that requires response within 45 days of receipt of the notice. PFSG and PFO have accepted the settlement offer and recorded a liability at December 31, 2004, in the amount of \$229,000. As of the date of this report, payment has not however been made to satisfy this liability.

During February 2003, PFMI received a letter alleging that PFMI owed Reliance Insurance Company, in liquidation, the sum of \$515,000 as a result of retrospective premiums under a retroactive premium agreement. In November 2003, PFMI received a second letter alleging that PFMI owed Reliance Insurance Company, in liquidation, the sum of \$583,000, reflecting an adjustment to the original amount of retrospective premiums under a retroactive premium agreement. Our counsel responded and advised that PFMI had numerous defenses to the demand, including, but not limited to, that the policy expired almost eight years ago and failure to adjust the premiums in a timely manner violated the agreement between the Company and Reliance and that under Michigan law it is deemed to be an unfair and deceptive act or practice in the business of insurance for an insurer to fail to complete a final audit within 120 days after termination of the policy. The Company and PFMI intend to vigorously defend this matter. However, in December 2003, we accrued approximately \$217,000 for this contingent liability.

See Note 5 for a discussion as to certain contingent liabilities due to the discontinuation of operations at the facility in Detroit, Michigan, owned by our subsidiary, Perma-Fix of Michigan, Inc.

In addition to the above matters and in the normal course of conducting our business, we are involved in various other litigation. We are not a party to any litigation or governmental proceeding which our management believes could result in any judgments or fines against us that would have a material adverse affect on our financial position, liquidity or results of future operations.

#### Insurance

Our business exposes us 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. We believe that our coverage is adequate to insure us against the various types of risks encountered.

In June 2003, we entered into a 25-year finite risk insurance policy, which provides financial assurance to the applicable states for our permitted facilities in the event of unforeseen closure. Prior to obtaining and at all times while operating under our permits, we are required to provide financial assurance that guarantees to the states that, in the event of closure, our permitted facilities will be closed in accordance with the regulations. The policy provides \$35 million of financial assurance coverage.

# **Pension Liability**

We recorded a \$1,474,000 pension withdrawal liability at September 30, 2004, based upon a withdrawal letter received from Central States Pension Fund, resulting from the termination of substantially all of the union employees at PFMI. The estimated calculation contained within the withdrawal letter was based upon a 2004 withdrawal date. We subsequently engaged an actuarial firm to confirm and update the calculation through December 31, 2004. Based upon this actuarial study, we increased the pension withdrawal liability to \$1,680,000 at December 31, 2004. This withdrawal liability represents our best estimate, and is subject to numerous factors such as the date and timing of union employee terminations, partial versus complete termination status, the pension fund's unfunded vested benefit liability and PFMI's portion of such liability.

# **Construction in Progress**

As of December 31, 2004, we have recorded \$1,852,000 in current construction in progress projects. It is estimated that we will incur an additional \$523,000 to complete the current projects by the end of 2005.

# **Operating Leases**

We lease certain facilities and equipment under operating leases. Future minimum rental payments as of December 31, 2004, required under these leases are \$1,433,000 in 2005, \$1,157,000 in 2006, \$723,000 in 2007, \$162,000 in 2008, and \$31,000 in 2009.

Net rent expense relating to our operating leases was \$3,674,000, \$3,006,000, and \$3,109,000 for 2004, 2003, and 2002, respectively.

# NOTE 14 PROFIT SHARING PLAN

We adopted the Perma-Fix Environmental Services, Inc. 401(k) Plan (the "401(k) Plan") in 1992, which is intended to comply under Section 401 of the Internal Revenue Code and the provisions of the Employee Retirement Income Security Act of 1974. All full-time employees who have attained the age of 18 are eligible to participate in the 401(k) Plan. Participating employees may make annual pretax contributions to their accounts up to 18% of their compensation, up to a maximum amount as limited by law. We, at our discretion, may make matching contributions based on the employee's elective contributions. Company contributions vest over a period of five years. We currently match up to 25% of our employees' contributions, not to exceed 3% of a participant's compensation. We contributed \$272,000, \$251,000, and \$253,000 in matching funds during 2004, 2003, and 2002, respectively.

# NOTE 15 OPERATING SEGMENTS

During 2004, we were engaged in three operating segments. Pursuant to FAS 131, we define an operating segment as a business activity:

- from which we may earn revenue and incur expenses;
- whose operating results are regularly reviewed by the president to make decisions about resources to be allocated and assess its performance; and
- for which discrete financial information is available.

We therefore define our operating segments as each business line that we operate. These segments however, exclude the Corporate headquarters, which does not generate revenue, and Perma-Fix of Michigan, Inc., a discontinued operation. See Note 5 for further information on discontinued operations. The accounting policies of the operating segments are summarized in Note 2.

Our operating segments are defined as follows:

The Industrial Waste Management Services segment provides on-and-off site treatment, storage, processing and disposal of hazardous and non-hazardous industrial waste and wastewater through our seven facilities; Perma-Fix Treatment Services, Inc., Perma-Fix of Dayton, Inc., Perma-Fix of Ft. Lauderdale, Inc., Perma-Fix of Orlando, Inc., Perma-Fix of South Georgia, Inc., Perma-Fix of Maryland, Inc., (which acquired certain assets and assumed certain liabilities of A&A), and Perma-Fix of Pittsburgh, Inc., (which acquired certain assets of EMAX). We provide through certain of our facilities various waste management services to certain governmental agencies.

The Nuclear Waste Management Services segment provides treatment, storage, processing and disposal of nuclear, low-level radioactive, mixed (waste containing both hazardous and non-hazardous constituents), hazardous and non-hazardous waste through our three facilities; Perma-Fix of Florida, Inc., Diversified Scientific Services, Inc., and the East Tennessee Materials and Energy Corporation. The segment also provides research, and development services, and on and off-site waste remediation of nuclear mixed and low-level radioactive waste.

The Consulting Engineering Services segment provides environmental engineering and regulatory compliance services through Schreiber, Yonley & Associates, Inc. which includes oversight management of environmental restoration projects, air and soil sampling and compliance and training activities, as well as, engineering support as needed by our other segment.

The table below shows certain financial information by business segment for 2004, 2003, and 2002.

# Segment Reporting December 31, 2004

	Industrial Waste Services	Nuclear Waste Services	Engineering	Segments Total	Corporate (2) and Other	Consolidated Total
Revenue from external customers	\$ 37,490	\$ 42,679 (3) \$	3,204	\$ 83,373	\$ \$	83,373
Intercompany revenues	2,410	3,480	444	6,334	_	6,334
Interest income	3		_	3		3
Interest expense	787	1,195		1,982	38	2,020
Interest expense-financing fees	_	194		194	1,997	2,191
Depreciation and amortization	1,910	2,657	29	4,596	35	4,631
Impairment loss on intangible						
assets	(9,002)		_	(9,002)	_	(9,002)
Segment profit (loss)	(14,690)	6,117	52	(8,521)		(9,738)
Segment assets <sup>(1)</sup>	27,912	60,642	2,261	90,815	9,640 (4)	100,455
Expenditures for segment assets	828	2,115	48	2,991	62	3,053

# **Segment Reporting December 31, 2003**

	Industrial Waste Services	Nuclear Waste Services	Engineering	Segments Total	Corporate (2) and Other		Consolidated Total
Revenue from external customers	\$ 38,512	\$ 37,418 <sup>(3)</sup> \$	3,223	\$ 79,153	\$ _ \$	\$ _	79,153
Intercompany revenues	3,675	2,704	510	6,889	_		6,889
Interest income	6	_	_	6	2		8
Interest expense	696	1,915	(7)	2,604	200		2,804
Interest expense-financing fees		3	_	3	1,067		1,070
Depreciation and amortization	1,639	2,490	35	4,164	73		4,237
Segment profit (loss)	(1,441)	4,674	222	3,455	<del></del>		3,455
Segment assets (1)	31,852	58,992	2,189	93,033	17,182 <sup>(4)</sup>		110,215
Expenditures for segment assets	1,191	1,825	50	3,066	344		3,410

# **Segment Reporting December 31, 2002**

	Industria Waste Services		Nuclear Waste Services	Engineering	Segments Total	Corporate (2 and Other	)	Consolidated Total
Revenue from external customers	\$ 32,01	5 \$	42,260 (3) \$	3,503	\$ 77,778	\$ _	\$	77,778
Intercompany revenues	4,97	0	4,053	164	9,187			9,187
Interest income	1	5		_	15	1		16
Interest expense	62	2	2,188	1	2,811	31		2,842
Interest expense-financing fees	_	_	8	_	8	1,036		1,044
Depreciation and amortization	1,46	7	2,148	40	3,655	83		3,738
Segment profit (loss)	(3,44	3)	5,625	337	2,519			2,519
Segment assets <sup>(1)</sup>	30,29	1	59,035	2,189	91,515	14,310 <sup>(4</sup>	)	105,825
Expenditures for segment assets	2,54	3	2,843	12	5,398	211		5,609

<sup>(1)</sup> Segment assets have been adjusted for intercompany accounts to reflect actual assets for each segment.

<sup>(2)</sup> Amounts reflect the activity for corporate headquarters, not included in the segment information.

The consolidated revenues within the Nuclear Waste Management Services segment include the Bechtel Jacobs revenues for 2004 which total \$9,405,000 (or 11.3%) of total revenue and \$13,139,000 (or 16.6%) for the year ended 2003 and \$9,664,000 (or 11.6%) for the year ended 2002.

Amount includes assets from Perma-Fix of Michigan, Inc., a discontinued operation from the Industrial segment, of approximately \$2,209,000, \$7,211,000, and \$7,298,000 as of the years ended 2004, 2003, and 2002, respectively.

NOTE 16 QUARTERLY OPERATING RESULTS (UNAUDITED)

Unaudited quarterly operating results are summarized as follows (in thousands, except per share data):

	Three Months Ended (unaudited)									
		March 31		June 30		Sept. 30		Dec. 31		Total
<u>2004</u>										
Revenues	\$		\$	19,128	\$	24,337	\$	,	\$	83,373
Gross Profit		3,850		5,703		7,529		6,768		23,850
Income (loss) from continuing operations		(1,445)		590		(6,957)		(1,736)		(9,548)
Discontinued operations		(553)		(473)		(10,575)		1,788		(9,813)
Net income (loss) applicable to										
Common Stock		(2,045)		70		(17,580)		4		(19,551)
Basic net income (loss) per common share:										
Continuing operations		(.04)		.01		(.17)		(.04)		(.24)
Discontinued operations		(.02)		(.01)		(.25)		.04		(.24)
Net income (loss)		(.06)		_		(.42)				(.48)
Diluted net income (loss) per common share										
Continued operations		(.04)		.01		(.17)		(.04)		(.24)
Discontinued operations		(.02)		(.01)		(.25)		.04		(.24)
Net income (loss)		(.06)				(.42)				(.48)
2003	Φ.	10.004	Φ.	10.410	Ф	22 521	Ф	10.700	Φ.	<b>5</b> 0.152
Revenues	\$	,	\$	18,419	\$	23,781	\$	- ,	\$	79,153
Gross Profit		4,835		4,194		9,671		6,412		25,112
Income (loss) from continuing operations		(198)		(1,134)		4,044		932		3,644
Discontinued operations Net income (loss) applicable to Common		(187)		(69)		29		(299)		(526)
Stock		(431)		(1,251)		4,025		586		2,929
Basic net income (loss) per common share:										
Continuing operations		(.01)		(.03)		.12		.03		.10
Discontinued operations				(.01)				(.01)		(.02)
Net income (loss)		(.01)		(.04)		.12		.02		.08
Diluted net income (loss) per common share										
Continued operations		(.01)		(.04)		.11		.02		.09
Discontinued operations								(.01)		(.01)
Net income (loss)		(.01)		(.04)		.11		.01		.08

# ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE None.

#### ITEM 9A. CONTROLS AND PROCEDURES

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic reports filed with the Securities and Exchange Commission (the "SEC") is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and that such information is accumulated and communicated to our management. Based on their most recent evaluation, which was completed as of the end of the period covered by this Annual Report on Form 10-K, our Chief Executive Officer and Chief Financial Officer believe that the Company's disclosure controls and procedures (as defined in Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934, as amended) are not effective, as a result of identifying three material weaknesses in our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)). See our Management's Report on Internal Control, over Financial Reporting, located prior to Item 8 of this report.

# ITEM 9B. OTHER INFORMATION

None.

#### **PART III**

#### ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The following table sets forth, as of the date hereof, information concerning the Directors and Executive Officers of the Company:

<u>NAME</u>	<u>AGE</u>	POSITION
Dr. Louis F. Centofanti	61	Chairman of the Board, President and Chief Executive Officer
Mr. Jon Colin	49	Director
Mr. Jack Lahav	56	Director
Mr. Joe Reeder	57	Director
Mr. Alfred C. Warrington, IV	69	Director
Dr. Charles E. Young	72	Director
Mr. Mark A. Zwecker	54	Director
Mr. Richard Kelecy	49	Chief Financial Officer, Vice President, and Secretary
Mr. Larry McNamara	55	President, Nuclear Services
Mr. Timothy Keegan	47	President, Industrial Services
Mr. William Carder	55	Vice President Sales & Marketing

Each director is elected to serve until the next annual meeting of stockholders.

We have a separately designated standing audit committee of our Board of Directors. The members of the Audit Committee are: Alfred C. Warrington, IV, Jon Colin and Mark A. Zwecker.

Our Board of Directors has determined that each of our audit committee members is an "audit committee financial expert" as defined by Item 401(h) of Regulation S-K of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and is independent within the meaning of Item 7(d)(3)(iv) Schedule 14A and Items 401(h)(1)(ii) of Regulation S-K of the Exchange Act.

## DR. LOUIS F. CENTOFANTI

The information set forth under the caption "Executive Officers of the Company" on page 14 is incorporated by reference.

# MR. JON COLIN

Mr. Colin has served as a Director since December 1996. Mr. Colin is currently Chief Executive Officer of Lifestar Response Corporation, a position he has held since April 2002. Mr. Colin served as Chief Operating Officer of Lifestar Response Corporation from October 2000 to April 2002, and a consultant for Lifestar Response Corporation from September 1997 to October 2000. From 1990 to 1996, Mr. Colin served as President and Chief Executive Officer for Environmental Services of America, Inc., a publicly traded environmental services company. Mr. Colin has a B.S. in Accounting from the University of Maryland.

# MR. JACK LAHAV

Jack Lahav has served as a Director since September 2001. Mr. Lahav is a private investor, specializing in launching and growing businesses. Previously, Mr. Lahav founded Remarkable Products Inc. and served as its president from 1980 to 1993; Mr. Lahav was also co-founder of Lamar Signal Processing, Inc.; president of Advanced Technologies, Inc., a robotics company and director of Vocaltech Communications, Inc.

#### MR. JOE R. REEDER

Mr. Reeder has served as a Director since April 2003. Mr. Reeder serves as Shareholder in Charge of the Mid-Atlantic Region for Greenberg Traurig LLP, an international law firm with 18 offices and 950 attorneys. Mr. Reeder also served as Litigation Chair of Patton Boggs LLP. His clientele has included countries, international corporations, and law firms throughout the United States. Mr. Reeder served for three years as Chairman of the Panama Canal Commission's Board of Directors where he oversaw a multibillion-dollar infrastructure program. He is a trustee of the Association of the United States Army and a frequent television commentator on military issues. Mr. Reeder has a L.L.M. from Georgetown University, J.D. from the University of Texas and a B.S. from the U.S. Military Academy at West Point.

# MR. ALFRED C. WARRINGTON, IV

Mr. Warrington has served as a Director since March 2002. Mr. Warrington was the founding chairman, co-chief executive officer and chief financial officer of Sanifill, Inc., a solid waste company that was merged with Waste Management, Inc. He currently serves as vice-chairman of HC Industries, Inc., a manufacturer of health and beauty aids. He has also been very active in community affairs and higher education. Mr. Warrington served as co-chairman of the MARTA referendum that brought rapid transit to the city of Atlanta and has been a strong supporter of the University of Florida, where he was instrumental in starting the School of Accounting. In recognition of his efforts, and a significant donation, the University of Florida has renamed the College of Business as the Warrington College of Business. Most recently, Mr. Warrington was appointed to the newly formed University of Florida Board of Trustees by Governor Jeb Bush. Prior to joining Sanifill, Mr. Warrington was a practicing CPA and a partner with Arthur Andersen & Co. Mr. Warrington holds a B.S.B.A. from the University of Florida.

# DR. CHARLES E. YOUNG

Dr. Charles E. Young has served as a Director since July 2003. Dr. Young was president of the University of Florida, a position he held from November 1999 to January 2004. Dr. Young also served as chancellor of the University of California at Los Angeles (UCLA) for 29 years until his retirement in July 1997. Dr. Young was formerly the chairman of the Association of American Universities and served on numerous commissions including the American Council on Education, the National Association of State Universities and Land-Grant Colleges, and the Business-Higher Education Forum. Dr. Young serves on the board of directors of I-MARK, Inc., a software and professional services company. He previously served on the board of directors of Intel Corp., Nicholas-Applegate Growth Equity Fund, Inc., Fiberspace, Inc., and Student Advantage, Inc. Dr. Young has a Ph.D. and M.A. in political science from UCLA and a B.A. from the University of California at Riverside.

# MR. MARK A. ZWECKER

Mark Zwecker has served as a Director since the Company's inception in January 1991. Mr. Zwecker has served as chief financial officer of Cambia Security, Inc., a software development company, since September 2003, and president of ACI Technology, LLC, since 1997. Mr. Zwecker was vice president of finance and administration for American Combustion, Inc., from 1986 until 1998. In 1983, Mr. Zwecker participated as a founder with Dr. Centofanti in the start up of PPM, Inc. He remained with PPM, Inc. until its acquisition in 1985 by USPCI. Mr. Zwecker has a B.S. in Industrial and Systems Engineering from the Georgia Institute of Technology and an M.B.A. from Harvard University.

#### MR. RICHARD T. KELECY

The information set forth under the caption "Executive Officers of the Company" on page 16 is incorporated by reference.

#### MR. LARRY MCNAMARA

The information set forth under the caption "Executive Officers of the Company" on page 16 is incorporated by reference.

#### MR. TIMOTHY KEEGAN

The information set forth under the caption "Executive Officers of the Company" on page 16 is incorporated by reference.

#### MR. WILLIAM CARDER

The information set forth under the caption "Executive Officers of the Company" on page 17 is incorporated by reference.

# **Certain Relationships**

There are no family relationships between any of our existing Directors or executive officers. Dr. Centofanti is the only Director who is our employee.

# Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the regulations promulgated thereunder require our executive officers and directors and beneficial owners of more than ten percent (10%) of any of our equity security registered pursuant to Section 12 of the Exchange Act to file reports of ownership and changes of ownership of our equity securities with the Securities and Exchange Commission, and to furnish us with copies of all such reports. Based solely on a review of the copies of such reports furnished to us and information provided to us, we believe that during 2004 none of our executive officers and directors failed to timely file reports under Section 16(a).

Capital Bank–Grawe Gruppe AG ("Capital Bank") has advised us that it is a banking institution regulated by the banking regulations of Austria, which holds shares of our Common Stock as agent on behalf of numerous investors. Capital Bank has represented that all of its investors are accredited investors under Rule 501 of Regulation D promulgated under the Act. In addition, Capital Bank has advised us that none of its investors beneficially own more than 4.9% of our Common Stock. Capital Bank has further informed us that its clients (and not Capital Bank) maintain full voting and dispositive power over such shares. Consequently, Capital Bank has advised us that it believes it is not the beneficial owner, as such term is defined in Rule 13d-3 of the Exchange Act, of the shares of our Common Stock registered in the name of Capital Bank because it has neither voting nor investment power, as such terms are defined in Rule 13d-3, over such shares. Capital Bank has informed us that it does not believe that it is required (a) to file, and has not filed, reports under Section 16(a) or (b) to file either Schedule 13D or Schedule 13G in connection with the shares of our Common Stock registered in the name of Capital Bank.

If the representations, or information provided, by Capital Bank are incorrect or Capital Bank was historically acting on behalf of its investors as a group, rather than on behalf of each investor independent of other investors, then Capital Bank and/or the investor group would have become a beneficial owner of more than 10% of our Common Stock on February 9, 1996, as a result of the acquisition of 1,100 shares of Series 1 Preferred Stock that were convertible into a maximum of 1,282,798 shares of our Common Stock commencing 45 days after issuance of the Series 1 Preferred. If either Capital Bank or a group of Capital Bank's investors became a beneficial owner of more than 10% of our Common Stock on February 9, 1996, and thereby required to file reports under Section 16(a) of the Exchange Act, then Capital Bank has failed to file a Form 3 or any Forms 4 or 5 for period from February 9, 1996, until the present.

## **Code of Ethics**

We have adopted a Code of Ethics that applies to all our executive officers. Our Code of Ethics is available on our website at www.perma-fix.com. If any amendments are made to the Code of Ethics or

any grants of waivers are made to any provision of the Code of Ethics to any of our executive officers, we will promptly disclose the amendment or waiver and nature of such amendment of waiver on our website.

#### ITEM 11. EXECUTIVE COMPENSATION

# **Summary Compensation Table**

The following table sets forth the aggregate compensation paid to our Chairman and Chief Executive Officer, Chief Financial Officer, President of Nuclear Services, Vice President of Sales and Marketing, and President of Industrial Services.

		Annual Compensation			Long Compo		
Name and Principal Position	<u>Year</u>	Salary (\$)	<b>Bonus</b> (\$) <sup>(1)</sup>	Other Annual Compen- sation (\$)	Restricted Stock Award(s) (\$)	Securities Underlying Options/ SARs (#)	All Other Compen- sation (\$) <sup>(2)</sup>
Dr. Louis F. Centofanti Chairman of the Board, President and Chief Executive Officer	2004 2003 2002	190,000 183,069 149,500	50,000 40,000 —	  	  	100,000	11,695 11,503 11,214
Richard T. Kelecy Vice President and Chief Financial Officer	2004 2003 2002	175,000 168,885 138,958	30,000 30,000 —	_ _ _	_ _ _	75,000 —	12,250 10,950 10,725
Larry McNamara President of Nuclear Services	2004 2003 2002	173,000 167,231 137,042	35,000 30,000 —	_ _ _	_ _ _	100,000	11,569 11,457 10,826
Timothy Keegan President of Industrial Services	2004 2003	160,000 104,615	15,000		<u> </u>	100,000	11,760 6,375
William Carder Vice President/Sales & Marketing	2004 2003	150,000 141,346	25,000	_	_	50,000	12,250 10,475

<sup>(1)</sup> The bonuses represent amounts paid in the respective year, but accrued for and expensed in the prior year. We have accrued for 2004, approximately \$175,000 for officer performance bonuses to be paid in 2005.

The Company has, with the assistance of an outside consultant, proposed to the Compensation Committee a new compensation plan for the Company's CEO, CFO and the presidents of the Company's Nuclear Segment and Industrial Segment. The Compensation Committee has preliminarily approved the plan, subject to completion and finalization of terms as directed by the Compensation Committee. Final approval of any such plan by the Compensation Committee would be subject to the approval of the Board of Directors. If the new plan is finalized and approved by the Compensation Committee and the Board of Directors, the above executive officers would receive an increase in their annual base compensation and would further receive during the year incentive performance bonuses. Under the plan, the incentive performance bonuses would be payable only if certain thresholds and targets are met during the course of a year.

<sup>(2)</sup> Each noted executive is provided a monthly automobile allowance in the amount of \$750. Also included, where applicable, is our 401(k) matching contribution.

# **Option Grants in 2004**

During 2004, there were no individual grants of stock options made to any of the executive officers named in the Summary Compensation Table.

# Aggregated Option Exercised in 2004 and Fiscal Year-end Option Values

The following table sets forth the fiscal year-end value of unexercised options held by executive officers named in the Summary Compensation table. None of the named executive officers exercised stock options during 2004.

			Number of Unexercised Options at Fiscal Year End (#)		Value of Unexercised In-the-Money Options At Fiscal Year End (\$) <sup>(2)</sup>		
Name	Shares Acquired on Exercise (#) <sup>(1)</sup>	Value Realized (\$) <sup>(1)</sup>	Exercisable	Unexercisable	Exercisable	Unexercisable	
Dr. Louis F. Centofanti			460,000	135,000	37,080	10,745	
Richard Kelecy			257,000	98,000	107,508	7,242	
Larry McNamara	_		132,000	138,000	26,608	8,422	
Timothy Keegan	_		20,000	80,000			
William Carder			10,000	40,000			

<sup>(1)</sup> No options were exercised during 2004.

# 401(k) Plan

We adopted the Perma-Fix Environmental Services, Inc. 401(k) Plan (the "401(k) Plan") in 1992, which is intended to comply with Section 401 of the Internal Revenue Code and the provisions of the Employee Retirement Income Security Act of 1974. All employees who have attained the age of 18 are eligible to participate in the 401(k) Plan. Participating employees may make annual pretax contributions to their accounts up to 18% of their compensation, up to a maximum amount as limited by law. We, at our discretion, may make matching contributions based on the employee's elective contributions. Company contributions vest over a period of five years. We currently match up to 25% of our employees' contributions, not to exceed 3% of a participant's compensation. We contributed \$272,000 in matching funds during 2004.

# **Employee Stock Purchase Plan**

The Perma-Fix Environmental Services, Inc. 1996 Employee Stock Purchase Plan provides our eligible employees an opportunity to purchase our Common Stock through payroll deductions. The maximum number of shares of our Common Stock that may be issued under the plan was 500,000 shares. The plan provided that shares would be purchased two times per year and that the exercise price per share shall be 85% of the market value of each such share of Common Stock on the offering date on which such offer commences or on the exercise date on which the offer period expires, whichever is lowest. The first purchase period commenced July 1, 1997. The maximum number of shares available was issued after the first offering period in 2004, with no additional shares issuable under the plan. The following table details the resulting employee stock purchase totals.

Represents the difference between \$1.809 (the closing price of our Common Stock reported on the National Association of Securities Dealers Automated Quotation ("NASDAQ") Small Cap Market on December 31, 2004), and the option exercise price. The actual value realized by a named executive officer on the exercise of these options depends on the market value of our Common Stock on the date of exercise.

		Shares
Purchase Period	Proceeds	Purchased
July 1 – December 31, 1997	\$ 16,000	8,276
January 1 – June 30, 1998	17,000	10,732
July 1 – December 31, 1998	22,000	17,517
January 1 – June 30, 1999	28,000	21,818
July 1 – December 31, 1999	49,000	48,204
January 1 – June 30, 2000	54,000	53,493
July 1 – December 31, 2000	52,000	46,632
January 1 – June 30, 2001	48,000	43,324
July 1 – December 31, 2001	69,000	33,814
January 1 – June 30, 2002	94,000	42,917
July 1 – December 31, 2002	92,000	43,243
January 1 – June 30, 2003	91,000	57,620
July 1 – December 31, 2003	76,000	44,799
January 1 – June 30, 2004	42,000	27,611

In 2003, our stockholders approved the adoption of the Perma-Fix Environmental Services, Inc. 2003 Employee Stock Purchase Plan. The plan provides our eligible employees an opportunity to purchase our Common Stock through payroll deductions. The maximum number of shares issuable under the plan is 1,500,000. The Plan authorized the purchase of shares two times per year, at an exercise price per share of 85% of the market price of our Common Stock on the offering date of the period or on the exercise date of the period, whichever is lower. The first purchase period commenced July 1, 2004, which resulted in the issuance for the period ended December 31, 2004, of 31,287 shares purchased in February 2005, for proceeds of \$47,000.

# **Compensation of Directors**

In 2004, we paid our outside directors fees of \$1,500 for each month of service, resulting in the six outside directors earning annual director's fees in the total amount of \$108,000. As a member of the Board of Directors, each director elects to receive either 65% or 100% of the director's fee in shares of our Common Stock based on 75% of the fair market value of the Common Stock determined on the business day immediately preceding the date that the fee is due. The balance of each director's fee, if any, is payable in cash. The aggregate amount of accrued directors' fees at December 31, 2004, to be paid during 2005 to the six outside directors (Messrs. Colin, Lahav, Reeder, Warrington, Young and Zwecker) was \$54,000. Reimbursement of expenses for attending meetings of the Board are paid in cash at the time of the applicable Board meeting. The outside directors do not receive additional compensation for committee participation or special assignments, except for reimbursement of expenses. We do not compensate the directors that also serve as our officers or employees of our subsidiaries for their service as directors. Although Dr. Centofanti is not compensated for his services provided as a director, Dr. Centofanti is compensated for his services rendered as an officer of the Company. See "EXECUTIVE COMPENSATION — Summary Compensation Table."

We believe that it is important for our directors to have a personal interest in our success and growth and for their interests to be aligned with those of our stockholders. Therefore, under our 1992 Outside Directors Stock Option and Incentive Plan ("1992 Directors Plan"), each outside director was granted a 10 year option to purchase up to 15,000 shares of Common Stock on the date such director was initially elected to the Board of Directors and received on each reelection date an option to purchase up to another 5,000 shares of Common Stock, with the exercise price being the fair market value of the Common Stock on the date that the option is granted. No option granted under the 1992 Directors Plan is exercisable until after the expiration of six months from the date the option is granted and no option shall be exercisable after the expiration of ten years from the date the option is granted. In 2003, our stockholders approved the 2003 Outside Directors Stock Plan ("2003 Directors Plan"). The 2003 Directors Plan is

substantially similar to the 1992 Directors Plan (which terminated in 2003), with the exception that each outside director is granted a 10 year option to purchase 30,000 shares of Common Stock when initially elected, and granted a 10 year option to purchase 12,000 shares of Common Stock on each reelection date. As of December 31, 2004, options to purchase 220,000 shares of Common Stock had been granted and are outstanding under the 1992 Directors Plan and options to purchase 162,000 shares of Common Stock were granted and are outstanding under the 2003 Directors Plan.

As of the date of this report, we have issued 226,550 shares of our Common Stock in payment of director fees under the 1992 Directors Plan, covering the period January 1, 1995 through December 31, 2003. No new shares may be issued under the 1992 Directors Plan, except for the exercise of options already granted. We have also issued 140,035 shares of our Common Stock in payment of director fees under the 2003 Directors Plan, covering the period October 1, 2003, through December 31, 2004.

Our 1991 Performance Equity Plan, the 1993 Non-qualified Stock Option Plan, and the 2004 Stock Option Plan, (collectively, the "Plans") provide that in the event of a change in control (as defined in the Plans) of the Company, each outstanding option and award granted under the Plans shall immediately become exercisable in full notwithstanding the vesting or exercise provisions contained in the stock option agreement. As a result, all outstanding stock options and awards granted under the Plans to our executive officers shall immediately become exercisable upon such a change in control of the Company.

# **Compensation Committee Interlocks and Insider Participation**

During 2004, the Compensation and Stock Option Committee for our Board of Directors was composed of Mark Zwecker, Jack Lahav, Jon Colin, Joe Reeder, and Dr. Charles Young.

# ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

#### **Security Ownership of Certain Beneficial Owners**

The table below sets forth information as to the shares of voting securities beneficially owned as of March 7, 2005, by each person known by us to be the beneficial owners of more than 5% of any class of our voting securities.

		Amount and	Percent
	Title	Nature of	Of
Name of Beneficial Owner	Of Class	Ownership	Class (1)
Rutabaga Capital Management <sup>(2)</sup>	Common	4,941,582	11.8%

<sup>(1)</sup> In computing the number of shares and the percentage of outstanding Common Stock "beneficially owned" by a person, the calculations are based upon 41,805,267 shares of Common Stock issued and outstanding on March 7, 2005 (excluding 988,000 Treasury Shares), plus the number of shares of Common Stock which such person has the right to acquire beneficial ownership of within 60 days. Beneficial ownership by our stockholders has been determined in accordance with the rules promulgated under Section 13(d) of the Exchange Act.

# Capital Bank represented to us that:

 Capital Bank owns shares of our Common Stock and rights to acquire shares of our Common Stock only as agent for certain of Capital Bank's investors;

<sup>&</sup>lt;sup>(2)</sup> This beneficial ownership amount is according to the Schedule 13G/A, filed with the Securities and Exchange Commission, on January 18, 2005, which provides that Rutabaga Capital Management, an investment advisor, has sole voting power over 2,105,200 shares and shared voting power over 2,836,382 shares, and has sole dispositive power over all of these shares. The address of Rutabaga Capital Management is: 64 Broad Street, 3<sup>rd</sup> Floor, Boston, MA 02109.

- All of the Capital Bank's investors are accredited investors;
- None of Capital Bank's investors beneficially own more than 4.9% of our Common Stock;
- Capital Bank's investors maintain full voting and dispositive power over the Common Stock beneficially owned by such investors; and
- Capital Bank has neither voting nor investment power over the shares of Common Stock owned by Capital Bank, as agent for its investors.

Notwithstanding the previous paragraph, if Capital Bank's representations to us described above are incorrect or if Capital Bank's investors are acting as a group, then Capital Bank or a group of Capital Bank's investors could be a beneficial owner of more than 5% of our voting securities. If Capital Bank is deemed the beneficial owner of such shares, the following table sets forth information as to the shares of voting securities that Capital Bank may be considered to beneficially own on March 7, 2005.

		Amount and	Percent
Name of	Title	Nature of	Of
Record Owner	Of Class	Ownership	Class (1)
Capital Bank Grawe Gruppe (2)	Common	10,959,887 (2)	23.8%

<sup>&</sup>lt;sup>(1)</sup> This calculation is based upon 41,805,267 shares of Common Stock issued and outstanding on March 7, 2005 (excluding 988,000 Treasury Shares), plus the number of shares of Common Stock which Capital Bank, as agent for certain accredited investors has the right to acquire within 60 days.

# **Security Ownership of Management**

The following table sets forth information as to the shares of voting securities beneficially owned as of March 7, 2005, by each of our directors and executive officers named in the Summary Compensation Table and by all of our directors and executive officers as a group. Beneficial ownership has been determined in accordance with the rules promulgated under Section 13(d) of the Exchange Act. A person is deemed to be a beneficial owner of any voting securities for which that person has the right to acquire beneficial ownership within 60 days.

<sup>(2)</sup> This amount includes 6,625,082 shares that Capital Bank owns of record, as agent for certain accredited investors and 2,668,138 shares that Capital Bank has the right to acquire, as agent for certain investors, within 60 days under certain Warrants. The Warrants are exercisable at an exercise price of \$1.75 per share of Common Stock. This amount also includes 1,666,667 shares of Common Stock issuable upon the conversion of 2,500 shares of Series 17 Preferred held by Capital Bank. This amount does not include the shares of Common Stock, which may be issuable for payment of dividends on the Series 17 Preferred. Capital Bank has also advised us that it is holding these Warrants and shares on behalf of numerous clients, all of which are accredited investors. Although Capital Bank is the record holder of the shares of Common Stock and Warrants described in this note, Capital Bank has advised us that it does not believe it is a beneficial owner of the Common Stock or that it is required to file reports under Section 16(a) or Section 13(d) of the Exchange Act. Because Capital Bank (a) has advised us that it holds the Common Stock as a nominee only and that it does not exercise voting or investment power over the Common Stock held in its name and that no one investor of Capital Bank for which it holds our Common Stock holds more than 4.9% of our issued and outstanding Common Stock; (b) has no right to, and is not believed to possess the power to, exercise control over our management or its policies; (c) has not nominated, and has not sought to nominate, a director to our board; and (d) has no representative serving as an executive officer of the Company, we do not believe that Capital Bank is our affiliate. Capital Bank's address is Burgring 16, 8010 Graz, Austria. Capital Bank has advised us that it is a banking institution.

	Number of Snares	
	Of Common Stock	Percentage of
Name of Beneficial Owner	<b>Beneficially Owned</b>	Common Stock (1)
Dr. Louis F. Centofanti (2)(3)	1,334,934 (3)	3.16%
Jon Colin (2)(4)	111,380 (4)	*
Jack Lahav (2)(5)	1,225,917 (5)	2.89%
Joe Reeder (2)(6)	252,686 <sup>(6)</sup>	*
Alfred C. Warrington, IV (2)(7)	189,766 <sup>(7)</sup>	*
Dr. Charles E. Young (2)(8)	52,407 (8)	*
Mark A. Zwecker (2)(9)	293,874 (9)	*
Richard T. Kelecy (2)(10)	287,950 <sup>(10)</sup>	*
Larry McNamara (2)(11)	186,000 (11)	*
Timothy Keegan (2)(12)	20,000 (12)	*
Bill Carder (2)(13)	28,347 (13)	*
Directors and Executive Officers as a Group (11 persons)	3,983,261	9.12%

Number of Charge

- <sup>(2)</sup> The business address of such person, for the purposes hereof, is c/o Perma-Fix Environmental Services, Inc., 1940 N.W. 67th Place, Gainesville, Florida 32653.
- (i) 535,934 shares held of record by Dr. Centofanti; (ii) options to purchase 195,000 shares granted pursuant to the 1991 Performance Equity Plan and the 1993 Non-qualified Stock Option Plan, which are immediately exercisable; (iii) options to purchase 300,000 shares granted pursuant to Dr. Centofanti's employment agreement that expired in 2000, which are immediately exercisable; and (iv) 304,000 shares held by Dr. Centofanti's wife. This amount does not include options to purchase 80,000 shares granted pursuant to the 1993 Non-qualified Stock Option Plan, which are not exercisable within 60 days. Dr. Centofanti has sole voting and investment power of these shares, except for the shares held by Dr. Centofanti's wife, over which Dr. Centofanti shares voting and investment power.
- <sup>(4)</sup> Mr. Colin has sole voting and investment power over these shares which include: (i) 42,380 shares held of record by Mr. Colin, and (ii) options to purchase 69,000 shares granted pursuant to the 1992 Outside Directors Stock Option and Incentive Plan and the 2003 Outside Directors Stock Plan, which are immediately exercisable.
- <sup>(5)</sup> Mr. Lahav has sole voting and investment power over these shares which include: (i) 610,488 shares of Common Stock held of record by Mr. Lahav; (ii) 44,000 options to purchase Common Stock pursuant to the 1992 Outside Directors Stock Option and Incentive Plan and the 2003 Outside Directors Stock Plan which are immediately exercisable; and (iii) 571,429 Warrants to purchase Common Stock, which are exercisable immediately.
- <sup>(6)</sup> Mr. Reeder has sole voting and investment power over these shares which include: (i) 213,686 shares of Common Stock held of record by Mr. Reeder, and (ii) options to purchase 39,000 shares granted pursuant to the 1992 Outside Directors Stock Option and Incentive Plan and the 2003 Outside Directors Stock Plan, which are immediately exercisable.
- <sup>(7)</sup> Mr. Warrington has sole voting and investment power over these shares which include: (i) 145,766 shares of Common Stock held of record by Mr. Warrington; and (ii) 44,000 options to purchase Common Stock pursuant to the 1992 Outside Directors Stock Option and Incentive Plan and the 2003 Outside Directors Stock Plan which are immediately exercisable.

<sup>\*</sup>Indicates beneficial ownership of less than one percent (1%).

<sup>(1)</sup> See footnote (1) of the table under "Security Ownership of Certain Beneficial Owners."

- <sup>(8)</sup> Dr. Young has sole voting and investment power over these shares which include: (i) 10,407 shares held of record by Dr. Young; and (ii) options to purchase 42,000 shares granted pursuant to the 2003 Outside Directors Stock Plan, which are immediately exercisable.
- <sup>(9)</sup> Mr. Zwecker has sole voting and investment power over these shares which include: (i) 224,874 shares of Common Stock held of record by Mr. Zwecker; and (ii) options to purchase 69,000 shares granted pursuant to the 1992 Outside Directors Stock Option and Incentive Plan and the 2003 Outside Directors Stock Plan which are immediately exercisable.
- (10) Mr. Kelecy has sole voting and investment power over 21,950 shares of Common Stock held of record by Mr. Kelecy and 266,000 options to purchase Common Stock granted pursuant to the 1993 Non-qualified Stock Option Plan. This amount does not include options to purchase 59,000 shares of Common Stock granted pursuant to the 1993 Non-qualified Stock Option Plan, which are not exercisable within 60 days.
- Mr. McNamara has sole voting and investment power over these shares which include: (i) 186,000 options to purchase Common Stock pursuant to the 1993 Non-qualified Stock Option Plan which are exercisable within 60 days. This amount does not include options to purchase 84,000 shares pursuant to the 1993 Non-qualified Stock Option Plan which are not exercisable within 60 days.
- <sup>(12)</sup> Mr. Keegan has sole voting and investment power over options to purchase 20,000 shares granted pursuant to the 1993 Non-Qualified Stock Option Plan which are exercisable within 60 days. This amount does not include options to purchase 80,000 shares of Common Stock granted pursuant to the 1993 Non-qualified Stock Option Plan, which are not exercisable within 60 days.
- (13) Mr. Carder has sole voting and investment power over 8,347 shares of Common Stock held of record by Mr. Carder and 20,000 options to purchase Common Stock granted pursuant to the 1993 Non-qualified Stock Option Plan which are exercisable within 60 days. This amount does not include options to purchase 30,000 shares of Common Stock granted pursuant to the 1993 Non-qualified Stock Option Plan, which are not exercisable within 60 days.

# **Equity Compensation Plans**

The following table sets forth information as of December 31, 2004, with respect to our equity compensation plans.

	Equity Compensation Plan					
	Number of securities to be issued upon exercise of outstanding options	Weighted average exercise price of outstanding options, warrants	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in			
Plan Category	warrants and rights	and rights	column (a)			
	(a)	(b)	(c)			
Equity compensation plans Approved by stockholders	2,675,950	\$1.77	2,091,465			
Equity compensation plans not Approved by stockholders (1)	300,000	2.58				
Total	2,975,950	\$1.85	2,091,465			

These shares are issuable pursuant to options granted to Dr. Centofanti under his 1997 employment agreement, which terminated in 2000. The options expire in October 2007.

## ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

# **Capital Bank Grawe Gruppe**

As of March 7, 2005, Capital Bank owned of record, as agent for certain accredited investors, 6,625,082 shares of Common Stock representing 15.8% of our issued and outstanding Common Stock. As of March 7, 2005, Capital Bank also had the right to acquire an additional 4,334,805 shares of Common Stock, comprised of (a) 2,668,138 shares of Common Stock issuable under various warrants held by Capital Bank, as agent for certain investors; and (b) 1,666,667 shares of Common Stock issuable to Capital Bank upon the conversion of 2,500 shares of Series 17 Preferred held by Capital Bank, as agent for certain investors. During 2004, Capital Bank exercised Warrants to purchase 329,262 shares of our Common Stock.

The 2,500 shares of Series 17 Preferred may be converted into shares of Common Stock at any time at a conversion price of \$1.50 per share, subject to adjustment as set forth in the Certificate of Designations relating to the Series 17 Preferred. The Series 17 Preferred has a "stated value" of \$1,000 per share. We may, at our sole option, redeem, in whole or in part, at any time, and from time to time the then outstanding Series 17 Preferred at the cash redemption prices of \$1,200 per share. Upon any notice of redemption, Capital Bank shall have only five business days to exercise its conversion rights regarding the redeemed shares.

The Series 17 Preferred accrues dividends on a cumulative basis at a rate of five percent (5%) per annum which dividends are payable semiannually when and as declared by the Board of Directors. During 2003, accrued dividends on the Series 17 Preferred of approximately \$125,000 were paid in the form of 53,478 shares of our Common Stock, of which 19,643 were issued in February 2004. During 2004, accrued dividends on the Series 17 Preferred of approximately \$125,000 were expensed, of which \$62,000 were paid in the form of 32,938 shares of our Common Stock, and \$63,000 will be paid in March 2005.

If Capital Bank were to acquire all of the shares of Common Stock issuable upon exercise of the various warrants held by Capital Bank and the shares of Common Stock issuable upon conversion of the Series 17 Preferred, then Capital Bank would own of record 10,959,887 shares of Common Stock, representing 23.8% of the issued and outstanding Common Stock. The foregoing estimates assume that we do not issue any other shares of Common Stock; no other warrants or options are exercised; we do not acquire additional shares of Common Stock as treasury stock; and Capital Bank does not dispose of any shares of Common Stock.

Capital Bank has advised us that it is a banking institution regulated by the banking regulations of Austria, which holds shares of our Common Stock on behalf of numerous investors. Capital Bank asserts that it is precluded by Austrian law from disclosing the identities of its investors, unless so approved by each such investor. Certain of its investors gave Capital Bank permission to disclose their identities in order to be included as Selling Stockholders in our Form S-3 Registration Statement, effective November 22, 2002. Capital Bank has represented that all of its investors are accredited investors under Rule 501 of Regulation D promulgated under the Act. In addition, Capital Bank has advised us that none of its investors beneficially own more than 4.9% of our Common Stock. Capital Bank has further informed us that its clients (and not Capital Bank) maintain full voting and dispositive power over such shares. Consequently, Capital Bank has advised us that it believes it is not the beneficial owner, as such term is defined in Rule 13d-3, of the shares of our Common Stock registered in the name of Capital Bank because it has neither voting nor investment power, as such terms are defined in Rule 13d-3, over such shares. Capital Bank has informed us that it does not believe that it is required to file, and has not filed, any reports under Forms #3, #4, or #5 as required by Section 16(a) of the Securities Exchange Act of 1934, as amended ("Exchange Act") or to file either Schedule 13D or Schedule 13G in connection with the shares of our Common Stock registered in the name of Capital Bank.

If the representations or information provided by Capital Bank are incorrect or if Capital Bank was historically acting on behalf of its investors as a group, rather than on behalf of each investor independent of other investors, Capital Bank and/or the investor group could have become a beneficial owner (as that term is defined under Rule 13d-3 as promulgated under the Exchange Act of more than 10% of our Common Stock.

Because Capital Bank (a) has advised us that it holds the Common Stock as a nominee only and that it does not exercise voting or investment power over our Common Stock held in its name and that no one investor of Capital Bank for which it holds our Common Stock holds more than 4.9% of our issued and outstanding Common Stock; (b) has no right to, and is not believed to possess the power to, exercise control over our management or our policies; (c) has not nominated, and has not sought to nominate, a director to our board; and (d) has no representative serving as an executive officer of the Company, we do not believe that Capital Bank is our affiliate.

#### ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

# **Audit Fees**

The aggregate fees and expenses billed by BDO Seidman, LLP ("BDO") for professional services rendered for the audit of the Company's annual financial statements for the fiscal years ended December 31, 2004 and 2003, for the reviews of the financial statements included in the Company's Quarterly Reports on Form 10-Q for those fiscal years, and for review of documents filed with the Securities and Exchange Commission for those fiscal years were approximately \$422,100 and \$195,800, respectively. Audit fees for 2004 include approximately \$198,900 in fees to provide internal control audit services to the Company. Approximately 60% and 85% of the total hours spent on audit services for the Company for the years ended December 31, 2004 and 2003, respectively, were spent by Gallogly, Fernandez and Riley, LLP ("GFR") members of the BDO alliance network of firms. Such members are not full time, permanent employees of BDO.

# **Audit-Related Fees**

BDO was engaged to provide audit related services to the Company for the fiscal year ended December 31, 2004. The aggregate fees billed by BDO for that period was \$14,600. BDO was not engaged to provide audit related services to the Company for the fiscal year ended December 31, 2003.

GFR audited the Company's 401(k) Plan during 2004 and 2003, and billed \$7,800 and \$7,800, respectively.

#### Tax Services

BDO was not engaged to provide tax services to the Company for the fiscal years ended December 31, 2004 and 2003.

The aggregate fees billed by GFR for tax compliance services for 2004 and 2003 were approximately \$34,400 and \$32,000, respectively.

#### **All Other Fees**

BDO was not engaged to provide any other services to the Company for the fiscal years ended December 31, 2004 and 2003.

GFR was not engaged to provide any other services to the Company for the fiscal years ended December 31, 2004 and 2003.

The Audit Committee of the Company's Board of Directors has considered whether BDO's provision of the services described above for the fiscal years ended December 31, 2004 and 2003, is compatible with maintaining its independence. The Audit Committee also considered services performed by GFR to determine that it is compatible with maintaining independence.

### Engagement of the Independent Auditor

The Audit Committee is responsible for approving all engagements with BDO and GFR to perform audit or non-audit services for us prior to us engaging BDO and GFR to provide those services. All of the services under the headings Audit Related Fees, Tax Services, and All Other Fees were approved by the Audit Committee pursuant to paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X of the Exchange Act. The Audit Committee's pre-approval policy provides as follows:

- The Audit Committee will review and pre-approve on an annual basis any known audit, auditrelated, tax and all other services, along with acceptable cost levels, to be performed by BDO and GFR. The Audit Committee may revise the pre-approved services during the period based on subsequent determinations. Pre-approved services typically include: statutory audits, quarterly reviews, regulatory filing requirements, consultation on new accounting and disclosure standards, employee benefit plan audits, reviews and reporting on management's internal controls and specified tax matters.
- Any proposed service that is not pre-approved on the annual basis requires a specific pre-approval by the Audit Committee, including cost level approval.
- The Audit Committee may delegate pre-approval authority to one or more of the Audit Committee members. The delegated member must report to the Audit Committee, at the next Audit Committee meeting, any pre-approval decisions made.

### **PART IV**

### ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

The following documents are filed as a part of this report:

(a)(1) Consolidated Financial Statements

See Item 8 for the Index to Consolidated Financial Statements.

(a)(2) Financial Statement Schedules

See Item 8 for the Index to Consolidated Financial Statements (which includes the Index to Financial Statement Schedules)

(a)(3) Exhibits

The Exhibits listed in the Exhibit Index are filed or incorporated by reference as a part of this report.

### **SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) 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.

By	/s/ Dr. Louis F. Centofanti	Date	March 29, 2005		
	Dr. Louis F. Centofanti Chairman of the Board				
	Chief Executive Officer				
Ву	/s/ Richard T. Kelecy	Date	March 30, 2005		
	Richard T. Kelecy				
	Chief Financial Officer				

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in capacities and on the dates indicated.

Ву	/s/ Jon Colin Jon Colin, Director	Date	March 30, 2005
Ву	/s/ Jack Lahav Jack Lahav, Director	Date	March 30, 2005
Ву	/s/ Alfred C. Warrington IV Alfred C. Warrington IV, Director	Date	March 30, 2005
Ву	/s/ Mark A. Zwecker Mark A. Zwecker, Director	Date	March 30, 2005
Ву	/s/ Dr. Louis F. Centofanti Dr. Louis F. Centofanti, Director	Date	March 29, 2005
Ву	/s/ Joe R. Reeder Joe R. Reeder, Director	Date	March 30, 2005
Ву	/s/ Charles E. Young Charles E. Young, Director	Date	March 30, 2005

# SCHEDULE II PERMA-FIX ENVIRONMENTAL SERVICES, INC.

### VALUATION AND QUALIFYING ACCOUNTS For the years ended December 31, 2004, 2003, and 2002 (Dollars in thousands)

Description Year ended December 31, 2004:	В	calance at seginning of Year	(	Additions Charged to Costs, Expenses and Other	<u>]</u>	Deductions	,	Balance At End Of Year
Allowance for doubtful accounts – continuing operations	\$	661	\$	251	\$	342	\$	570
Allowance for doubtful accounts – discontinued operations		42		98		15		125
Year ended December 31, 2003: Allowance for doubtful accounts – continuing operations	\$	577	\$	236	\$	152	\$	661
Allowance for doubtful accounts – discontinued operations		121		35		114		42
Year ended December 31, 2002: Allowance for doubtful accounts –								
continuing operations Allowance for doubtful accounts –	\$	639	\$	542	\$	604	\$	577
discontinued operations		86		136		101		121

### **EXHIBIT INDEX**

# Exhibit No.

3(i) Restated Certificate of Incorporation, as amended, and all Certificates of Designations are incorporated by reference from 3.1(i) to the Company's Form 10-Q for the quarter ended September 30, 2002.

**Description** 

- 3(ii) Bylaws are incorporated by reference from the Company's Registration Statement, No. 33-51874.
- 4.1 Specimen Common Stock Certificate as incorporated by reference from Exhibit 4.3 to the Company's Registration Statement, No. 33-51874.
- 4.2 Loan and Security Agreement by and between the Company, subsidiaries of the Company as signatories thereto, and PNC Bank, National Association, dated December 22, 2000, as incorporated by reference from Exhibit 99.1 to the Company's Form 8-K dated December 22, 2000.
- 4.3 First Amendment to Loan Agreement and Consent, dated January 30, 2001, between the Company and PNC Bank, National Association as incorporated by reference from Exhibit 99.7 to the Company's Form 8-K dated January 31, 2001.
- Form of Common Stock Purchase Warrant, expiring July 31, 2008, issued by the Company to AMI and BEC to purchase up to 1,281,731 shares of the Company's Common Stock is incorporated by reference from Exhibit 99.3 to the Company's Form 8-K, dated July 30, 2001.
- 4.5 Specimen Certificate relating to Series 17 Preferred as incorporated by reference from Exhibit 4.4 to the Company's Form 8-K, dated June 15, 2001.
- 4.6 Amendment No. 1 to Revolving Credit, Term Loan and Security Agreement, dated as of June 10, 2002, between the Company and PNC Bank is incorporated by reference from Exhibit 4.3 to the Company's Form 10-Q for the quarter ended September 30, 2002.
- 4.7 Amendment No. 2 to Revolving Credit, Term Loan and Security Agreement, dated as of May 23, 2003, between the Company and PNC Bank, as incorporated by reference from Exhibit 4.4 to the Company's Form 10-Q for the quarter ended June 30, 2003, and filed on August 14, 2003.
- 4.8 Amendment No. 3 to Revolving Credit, Term Loan, and Security Agreement, dated as of October 31, 2003, between the Company and PNC Bank, as incorporated by reference from Exhibit 4.5 to the Company's Form 10-Q for the quarter ended September 30, 2003, and filed on November 10, 2003.
- 4.9 Securities Purchase Agreement dated March 16, 2004, between the Company and Alexandra Global Master Fund, Ltd., Alpha Capital AG, Baystar Capital II, L.P., Bristol Investment Fund, Ltd., Crescent International Ltd, Crestview Capital Master LLC, Geduld Capital Partners LP, Gruber & McBaine International, Irwin Geduld Revocable Trust, J Patterson McBaine, Jon D. Gruber and Linda W. Gruber, Lagunitas Partners LP, Omicron Master Trust, Palisades Master Fund, L.P., Stonestreet LP, is incorporated by reference from Exhibit 4.1 of our Registration Statement No. 333-115061. The Company will furnish supplementally a copy of all omitted schedules to the Commission upon request.
- 4.10 Registration Rights Agreement, dated March 16, 2004, between the Company and Alexandra Global Master Fund, Ltd., Alpha Capital AG, Baystar Capital II, L.P., Bristol Investment Fund, Ltd., Crescent International Ltd, Crestview Capital Master LLC, Geduld Capital Partners LP, Gruber & McBaine International, Irwin Geduld Revocable Trust, J Patterson McBaine, Jon D. Gruber and Linda W. Gruber, Lagunitas Partners LP, Omicron Master Trust, Palisades Master Fund, L.P., Stonestreet LP, is incorporated by reference from Exhibit 4.2 of our Registration Statement No. 333-115061.
- 4.11 Common Stock Purchase Warrant, dated March 16, 2004, issued by the company to Alexandra Global Master Fund, Ltd., for the purchase of 262,500 shares of the Company's

common stock, is incorporated by reference from Exhibit 4.3 of our Registration Statement No. 333-115061. Substantially similar warrants were issued by the Company to the following: (1) Alpha Capital AG, for the purchase of up to 54,444 shares; (2)Baystar Capital II, L.P., for the purchase of up to 63,000 shares; (3) Bristol Investment Fund, Ltd., for the purchase of up to 62,222 shares; (4) Crescent International Ltd, for the purchase of up to 105,000 shares; (5) Crestview Capital Master LLC, for the purchase of up to 233,334 shares; (6) Geduld Capital Partners LP, for the purchase of up to 26,250 shares; (7) Gruber & McBaine International, for the purchase of up to 38,889 shares; (8) Irwin Geduld Revocable Trust, for the purchase of up to 17,500 shares; (9) J Patterson McBaine, for the purchase of up to 15,555 shares; (10) Jon D. Gruber and Linda W. Gruber, for the purchase of up to 38,889 shares; (11) Lagunitas Partners LP, for the purchase of up to 93,333 shares; (12) Omicron Master Trust, for the purchase of up to 77,778 shares; (13) Palisades Master Fund, L.P., for the purchase of up to 54,444 shares. Copies will be provided to the Commission upon request.

- 4.12 Amendment No. 4 to Revolving Credit, Term Loan, and Security Agreement, dated as of March 25, 2005, between the Company and PNC Bank.
- 10.1 1991 Performance Equity Plan of the Company as incorporated herein by reference from Exhibit 10.3 to the Company's Registration Statement, No. 33-51874.
- 10.2 1992 Outside Directors' Stock Option Plan of the Company as incorporated by reference from Exhibit 10.4 to the Company's Registration Statement, No. 33-51874.
- First Amendment to 1992 Outside Directors' Stock Option Plan as incorporated by reference from Exhibit 10.29 to the Company's Form 10-K for the year ended December 31, 1994.
- 10.4 Second Amendment to the Company's 1992 Outside Directors' Stock Option Plan, as incorporated by reference from the Company's Proxy Statement, dated November 4, 1994.
- 10.5 Third Amendment to the Company's 1992 Outside Directors' Stock Option Plan as incorporated by reference from the Company's Proxy Statement, dated November 8, 1996.
- 10.6 Fourth Amendment to the Company's 1992 Outside Directors' Stock Option Plan as incorporated by reference from the Company's Proxy Statement, dated April 20, 1998.
- 10.7 1993 Non-qualified Stock Option Plan as incorporated by reference from the Company's Proxy Statement, dated October 12, 1993.
- 10.8 401(K) Profit Sharing Plan and Trust of the Company as incorporated by reference from Exhibit 10.5 to the Company's Registration Statement, No. 33-51874.
- 10.9 Warrant, dated December 22, 2000, issued by the Registrant to Ryan, Beck & Co., LLC (formerly Ryan, Beck & Co., Inc.) ("Ryan Beck") for the purchase of 213,889 shares of the Company's Common Stock, as incorporated by reference from Exhibit 99.6 to the Company's Form 8-K dated January 31, 2001. Substantially similar warrants for the purchase of an aggregate 191,067 shares of the Company's Common Stock assigned by Ryan Beck to each of Randy F. Rock and Michael J. Kollender, along with the remaining 98,768 warrants issued to Ryan Beck will be provided to the Commission upon request. Substantially similar warrants, dated March 9, 2001 issued to Ryan Beck for the purchase of an aggregate 27,344 shares of the Company's Common Stock will be provided to the Commission upon request, along with substantially similar warrants dated March 9, 2001, for the purchase of 16,710 shares of the Company's Common Stock assigned by Ryan Beck to each of Randy F. Rock and Michael J. Kollender. Substantially similar warrants, dated December 22, 2000 for the purchase of an aggregate 405,504 shares of the Company's Common Stock assigned by Larkspur Capital Corporation ("Larkspur") to the Christopher T. Goodwin Trust (3,000 shares), the Kelsey A. Goodwin Trust (3,000 shares), Meera Murdeshwar (36,000 shares), Paul Cronson (169,907 shares), and Robert Goodwin (193,597 shares), along with the remaining 41,510 warrants issued to Larkspur on March 9, 2001 will be provided to the Commission upon request.

- Warrant, dated January 31, 2001, for the purchase of shares of the Company's Common Stock issued by the Company to BHC Interim Funding, L.P. as incorporated by reference from Exhibit 99.5 to the Company's Form 8-K dated January 31, 2001.
- 10.11 Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation (M&EC) and Bechtel Jacobs Company, LLC No. 1GB-99446V dated June 23, 1998, as incorporated by reference from Exhibit 10.1 to the Company's Form 10-Q for the quarter ended September 30, 1998.
- 10.12 Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation (M&EC) and Bechtel Jacobs Company, LLC No. 1GB-99447V dated June 23, 1998, as incorporated by reference from Exhibit 10.2 to the Company's Form 10-Q for the quarter ended September 30, 1998.
- 10.13 Basic Oak Ridge Agreement between East Tennessee Materials and Energy Corporation (M&EC) and Bechtel Jacobs Company, LLC No. 1GB-99448V dated June 23, 1998, as incorporated by reference from Exhibit 10.3 to the Company's Form 10-Q for the quarter ended September 30, 1998.
- 10.14 Subcontract Change Notice between East Tennessee Materials and Energy Corporation and Bechtel Jacobs Company, LLC, No. BA-99446/7 and 8F, dated July 2, 2002, are incorporated by reference from Exhibit 10.24 to the Company's Registration Statement No. 333-70676.
- 10.15 Registration Rights Agreement, dated July 31, 2001, among the Company, AMI, and BEC is incorporated by reference from Exhibit 99.5 to the Company's Form 8-K, dated July 30, 2001
- 10.16 Option Agreement, dated July 31, 2001, among the Company, AMI, and BEC is incorporated by reference from Exhibit 99.8 to the Company's Form 8-K, dated July 30, 2001.
- 10.17 Promissory Note, dated June 7, 2001, issued by M&EC in favor of Performance Development Corporation is incorporated by reference from Exhibit 10.1 to the Company's Form 8-K, dated June 15, 2001.
- 10.18 Form 433-D Installment Agreement, dated June 11, 2001, between M&EC and the Internal Revenue Service is incorporated by reference from Exhibit 10.2 to the Company's Form 8-K, dated June 15, 2001.
- 10.19 Common Stock Purchase Warrant, dated July 9, 2001, granted by the Registrant to Capital Bank–Grawe Gruppe AG for the right to purchase up to 1,830,687 shares of the Registrant's Common Stock at an exercise price of \$1.75 per share incorporated by reference from Exhibit 10.12 to the Company's Registration Statement, No. 333-70676.
- 10.20 Common Stock Purchase Warrant, dated July 9, 2001, granted by the Registrant to Herbert Strauss for the right to purchase up to 625,000 shares of the Registrant's Common Stock at an exercise price of \$1.75 per share, incorporated by reference from Exhibit 10.13 to the Company's Registration Statement, No. 333-70676.
- Warrant Agreement, dated July 31, 2001, granted by the Registrant to Paul Cronson for the right to purchase up to 43,295 shares of the Registrant's Common Stock at an exercise price of \$1.44 per share, incorporated by reference from Exhibit 10.20 to the Company's Registration Statement, No. 333-70676. Substantially similar Warrants, dated July 31, 2001, for the right to purchase up to an aggregate 186,851 shares of the Registrant's Common Stock at an exercise price of \$1.44 per share were granted by the Registrant to Ryan Beck (6,836 shares), Ryan Beck (54,688), Michael Kollender (37,598 shares), Randy Rock (37,598 shares), Robert Goodwin (43,294 shares), and Meera Murdeshwar (6,837 shares). Copies will be provided to the Commission upon request.
- Warrant to Purchase Common Stock, dated July 30, 2001, granted by the Registrant to David Avital for the purchase of up to 143,000 shares of the Registrant's Common Stock at an exercise price of \$1.75 per share, incorporated by reference from Exhibit 10.21 to the Company's Registration Statement, No. 333-70676. Substantially similar Warrants for the purchase of an aggregate 4,249,022 were issued to Capital Bank (837,451 shares), CICI

- 1999 Qualified Annuity Trust (85,715 shares), Gerald D. Cramer (85,715 shares), CRM 1999 Enterprise Fund 3 (200,000 shares), Craig S. Eckenthal (57,143 shares), Danny Ellis Living Trust (250,000 shares), Europa International, Inc. (571,428 shares), Harvey Gelfenbein (28,571 shares), A. C. Israel Enterprises (285,715 shares), Kuekenhof Partners, L.P. (40,000), Kuekenhof Equity Fund, L.P. (60,000 shares), Jack Lahav (571,429 shares), Joseph LaMotta (28,571 shares), Jay B. Langner (28,571 shares), The F. M. Grandchildren Trust (42,857 shares), Mathers Associates (228,571 shares), Peter Melhado (115,000 shares), Pamela Equities Corp. (42,857 shares), Josef Paradis (143,000 shares), Readington Associates (57,143 shares), Dr. Ralph Richart (225,000 shares), Edward J. Rosenthal Profit Sharing Plan (28,571 shares), Yariv Sapir IRA (85,714 shares), and Bruce Wrobel (150,000 shares), respectively. Copies will be provided to the Commission upon request.
- 10.23 Common Stock Purchase Warrant, dated July 30, 2001, granted by the Registrant to Ryan, Beck & Co. for the purchase of 20,000 shares of the Registrant's Common Stock at an exercise price of \$1.75 per share, incorporated by reference from Exhibit 10.22 to the Company's Registration Statement, No. 333-70676. Substantially similar Warrants, dated July 30, 2001, for the purchase of an aggregate 48,000 shares of the Registrant's Common Stock at an exercise price of \$1.75 per share were issued to Ryan, Beck & Co., LLC (14,000 shares), and Larkspur Capital Corporation (34,000 shares). Copies will be provided to the Commission upon request.
- 10.24 Common Stock Purchase Warrant, dated July 31, 2001, granted by the Registrant to Associated Mezzanine Investors-PESI (I), L.P. for the purchase of up to 712,073 shares of the Registrant's Common Stock at an exercise price of \$1.50 per share, incorporated by reference from Exhibit 10.23 to the Company's Registration Statement, No. 333-70676. A substantially similar Warrant was issued to Bridge East Capital L.P. for the right to purchase of up to 569,658 shares of the Registrant's Common Stock, and a copy will be provided to the Commission upon request.
- 10.25 2003 Outside Directors' Stock Plan of the Company as incorporated by reference from Exhibit B to the Company's 2003 Proxy Statement.
- 10.26 2003 Employee Stock Purchase Plan of the Company as incorporated by reference from Exhibit C to the Company's 2003 Proxy Statement.
- 10.27 2004 Stock Option Plan of the Company as incorporated by reference from Exhibit B to the Company's 2004 Proxy Statement.
- Asset Purchase Agreement dated March 23, 2004, between the Company and USL Environmental Services, Inc., a Maryland corporation, d/b/a A & A Environmental, is incorporated by reference from Exhibit 5.1 of our Current Report on Form 8-K dated March 23, 2004, and filed on April 8, 2004. The Company will furnish supplementally a copy of all omitted schedules to the Commission upon request.
- 10.29 Asset Purchase Agreement dated March 23, 2004, between the Company and US Liquids of Pennsylvania, Inc., a Pennsylvania corporation, d/b/a EMAX of Pittsburgh, Pa., is incorporated by reference from Exhibit 5.2 of our Current Report on Form 8-K dated March 23, 2004, and filed on April 8, 2004. The Company will furnish supplementally a copy of all omitted schedules to the Commission upon request.
- 10.30 Common Stock Purchase Warrant, dated March 16, 2004, granted by the Company to R. Keith Fetter, is incorporated by reference from Exhibit 10.3 of our Form S-3 Regisration Statement dated April 30, 2004. Substantially similar warrants were granted to Joe Dilustro and Chet Dubov, each for the purchase of 30,000 shares of the Company's common stock. Copies will be provided to the Commission upon request.
- 10.31 Agreement between the Company and a Fortune 500 company, dated June 21, 2004 is incorporated by reference from Exhibit 10.1 of our Form 10-Q for the quarter ended June 30, 2004. List of exhibits are included in the contract and will be provided to the Commission upon request.
- 10.32 Agreement between Perma-Fix Environmental Services, Inc. and Fluor Hanford, dated October 11, 2004 is incorporated by reference from Exhibit 10.1 of our Form 10-Q for the

quarter ended September 30, 2004. CERTAIN INFORMATION WITHIN THIS EXHIBIT HAS BEEN OMITTED AS IT IS THE SUBJECT OF A REQUEST BY THE COMPANY FOR CONFIDENTIAL TREATMENT BY THE SECURITIES AND EXCHANGE COMMISSION UNDER THE FREEDOM OF INFORMATION ACT. THE OMITTED INFORMATION HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION FOR PURPOSE OF SUCH REQUEST.

- 21.1 List of Subsidiaries
- 23.1 Consent of BDO Seidman, LLP
- Certification by Dr. Louis F. Centofanti, Chief Executive Officer of the Company pursuant to Rule 13a-14(a) or 15d-14(a).
- Certification by Richard T. Kelecy, Chief Financial Officer of the Company pursuant to Rule 13a-14(a) or 15d-14(a).
- 32.1 Certification by Dr. Louis F. Centofanti, Chief Executive Officer of the Company furnished pursuant to 18 U.S.C. Section 1350.
- Certification by Richard T. Kelecy, Chief Financial Officer of the Company furnished pursuant to 18 U.S.C. Section 1350.

### EXHIBIT 21.1

## LIST OF SUBSIDIARIES OF PERMA-FIX ENVIRONMENTAL SERVICES, INC. (THE "COMPANY")

### **Industrial Waste Management Services**

Perma-Fix of Fort Lauderdale, Inc. ("PFFL"), a Florida corporation, is a 100% owned subsidiary of the Company.

Perma-Fix of Dayton, Inc. ("PFD"), an Ohio corporation, is a 100% owned subsidiary of the Company.

Perma-Fix Treatment Services, Inc. ("PFTS"), an Oklahoma corporation, is a 100% owned subsidiary of the Company.

Perma-Fix of Memphis, Inc. ("PFM"), a Tennessee corporation, is a 100% owned subsidiary of the Company.

Perma-Fix of Orlando, Inc. ("PFO"), a Florida Corporation, is a 100% owned subsidiary of the Company.

Perma-Fix of South Georgia, Inc. ("PFSG"), a Georgia Corporation, is a 100% owned subsidiary of the Company.

Perma-Fix of Michigan, Inc., ("PFMI") a Michigan Corporation, is a 100% owned subsidiary of the Company.

Perma-Fix of Maryland, Inc., ("PFMD") a Maryland Corporation, is a 100% owned subsidiary of the Company.

Perma-Fix of Pittsburgh, Inc., ("PFP") a Pennsylvania Corporation, is a 100% owned subsidiary of the Company.

### **Nuclear Waste Management Services**

Perma-Fix of Florida, Inc. ("PFF"), a Florida corporation, is a 100% owned subsidiary of the Company.

Diversified Scientific Services, Inc., ("DSSI") a Tennessee Corporation, is a 100% owned subsidiary of the Company.

East Tennessee Materials and Energy Corporation, ("M&EC") a Tennessee Corporation, is a 100% owned subsidiary of the Company.

### **Consulting Services**

Schreiber, Yonley & Associates ("SYA"), a Missouri corporation, is a 100% owned subsidiary of IWM.

Industrial Waste Management, Inc. ("IWM"), a Missouri corporation, is a 100% owned subsidiary of the Company.

# lesigned by curran & connors, inc. / www.curran-connors.co

### **BOARD OF DIRECTORS**

Dr. Louis F. Centofanti

Chairman, President and Chief Executive Officer (Director since 1991)

### Mark A. Zwecker

Director<sup>(1),(2),(3)</sup>
Chief Financial Officer of Cambia Security, Inc.
(Director since 1991)

### Jack Lahav

Director<sup>(2),(3)</sup>
Private Investor
(Director since 2001)

- (1) Member of Audit Committee
- (2) Member of Nominating and Corporate Governance Committee
- (3) Member of Compensation and Stock Option Committee

### Alfred C. Warrington, IV

Director(1),(2)

Vice Chairman of HC Industries, Inc. (Director since 2002)

### Charles E. Young

Director<sup>(2),(3)</sup>
President of Qatar Foundation for Education, Science and Community Development (Director since 2003)

### Joe R. Reeder

Director<sup>(2),(3)</sup>
Shareholder in Charge of Mid-Atlantic Region for Greenburg Traurig LLP (Director since 2003)

### Jon Colin

Director<sup>(1),(3)</sup>
Chief Executive Officer of
LifeStar Response Corporation
(Director since 1996)

### **EXECUTIVE OFFICES**

1940 N.W. 67th Place Gainesville, Florida 32653 Telephone: (352) 373-4200 Fax: (352) 373-0040

6075 Roswell Road, Suite 602 Atlanta, Georgia 30328 Telephone: (404) 847-9990 Fax: (404) 847-9977

### TRANSFER AGENT AND REGISTRAR

Continental Stock Transfer & Trust Company 17 Battery Place New York, New York 10004

### **PUBLIC ACCOUNTANTS**

BDO Seidman, LLP Centurion Plaza 1601 Forum Place, Suite 904 West Palm Beach, Florida 33401

### **ANNUAL MEETING**

The Company has scheduled its Annual Meeting for Wednesday, July 27, 2005. The meeting will be held at the offices of Perma-Fix Environmental Services, Inc., 1940 N.W. 67th Place, Gainesville, Florida 32653, at 1:00 p.m. (EDST).

### **STOCK LISTING**

The common stock of Perma-Fix Environmental Services, Inc. is listed on Nasdaq where it is traded under the ticker symbol PESI.

The common stock of Perma-Fix Environmental Services, Inc. is listed on the Boston Stock Exchange where it is traded under the ticker symbol PES.

The common stock of Perma-Fix Environmental Services, Inc. is listed on the Berlin Stock Exchange where it is traded under the ticker symbol PES.BE.

### STOCKHOLDER INQUIRIES

Inquiries concerning stockholder records should be addressed to the Transfer Agent listed above. Comments or questions concerning the operations of the Company should be addressed to the Secretary, Perma-Fix Environmental Services, Inc., 1940 N.W. 67th Place, Gainesville, Florida 32653.

Certain statements contained herein may be deemed forward-looking statements. All estimates, projections, and other statements (except statements of historical facts) contained herein are forward-looking statements, including but not limited to, completion of the Fortune 500 project by the middle of 2005, anticipation of continued growth in our Nuclear segment, expectation that our margins will improve, no need to raise additional capital, and the changes positioning us to generate increased value for our shareholders. See "Special Note Regarding Forward-Looking Statements" contained in the Form 10-K that is part of the Annual Report for discussion of factors which could cause future outcomes to differ materially from those described herein.



Perma-Fix Environmental Services, Inc. 1940 N.W. 67th Place Gainesville, Florida 32653

www.perma-fix.com