PERMA FIX ENVIRONMENTAL SERVICES INC
Form ARS
October 09, 2002

PermaFix
environmental services

Annual Report 2001

Moving towards a cleaner environment.

Cover -- center photograph
(nuclear lab employee utilizing test equipment to analyze production sample)

Cover -- lower right photograph
(M&EC employee operating Perma-Fix II processing equipment)

Cover -- lower left photograph
(scenic view of mountains and lake)

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environmental services

OUR MISSION

The Perma-Fix mission is to enhance profitability and increase shareholder value by:

* *consistently improving and expanding the range and quality of waste treatment technologies and services that we can offer our customers;*
* *expanding our customer base both through acquisitions and the building of customer loyalty through the consistent demonstration of our commitment to providing safe, effective, low-cost solutions to our customers' complex nuclear mixed waste and industrial waste and wastewater disposal needs; and*
* *by the wise management of our financial, technological and human resources.*

CORPORATE PROFILE

Perma-Fix Environmental Services, Inc. is a national environmental technology company, providing unique mixed waste and industrial waste management services. The Company has increased its focus on the nuclear services segment, which provides radioactive and mixed waste treatment services to hospitals, research laboratories and institutions, numerous federal agencies including the Departments of Energy and Defense and nuclear utilities. The industrial services segment provides hazardous and non-hazardous waste treatment services for a diverse group of customers including Fortune 500 companies, numerous federal, state and local agencies and thousands of smaller clients. The Company operates nine major waste treatment facilities across the country, supported by numerous satellite offices, a government services group and a large technical staff.

2001

annual report

FINANCIAL HIGHLIGHTS

(Amounts in Thousands, Except for Share Amounts)	2001	2000	1999	1998	1997
Net Revenues	$ 74,492	$ 59,139	$ 46,464	$ 30,551	$ 28,413
Gross Profit		18,229	15,193	9,487	8,586
EBITDA	24,773	5,464	4,894	2,640	2,904
Operating Income		1,813	2,116	531	924

Total Assets	10,035	72,771	54,644	28,748	28,570
Stockholders' Equity	5,419 99,137 41,841	22,020	19,819	15,953	12,194

Consolidated revenues increased 26% or $15.4 million to a record $74.5 million for the year ended December 31, 2001

26%

Net Revenues (in millions)	*EBITDA (in millions)*	*Operating Income (in millions)*
1999 -- $46.5	1999 -- $4.9	1999 -- $2.1
2000 -- $59.1	2000 -- $5.5	2000 -- $1.8
2001 -- $74.5	2001 -- $10.0	2001 -- $5.4

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LETTER TO OUR SHAREHOLDERS

2001 was a year of major accomplishments for Perma-Fix, as we successfully executed on our business plan. We have positioned our Company to be a leader in the Mixed Waste Market and focused on niche industrial opportunities through new technologies, such as the Bio-Fix water treatment technology.

DEAR FELLOW SHAREHOLDER:

Photograph of Dr. Louis F. Centofanti,
the Company's Chairman, President,
and Chief Executive Officer

Nuclear Revenues

(in millions)

Nuclear revenues increased 17.2 million or

146% to $28.9 million

BAR GRAPH

$7.0$11.7$28.9 '99'00'01

*

In June 2001, we completed the acquisition of M&EC, a permitted mixed waste facility in Oak Ridge, Tennessee, which holds three major DOE subcontracts. The newly constructed M&EC facility became operational in September 2001.

Three common themes will remain constant as we attempt to position the Company for continued growth:

*

During the year, we made great strides toward restructuring our balance sheet. In July 2001, the Company finalized a private placement offering for $7.7 million, secured longterm sub-debt financing for $5.6 million and completed an exchange of $3.1 million in debt for equity.

* To focus on opportunities in growing and profitable markets that require the development and deployment of proprietary technologies, developed or licensed by the Company, that are safe and nondestructive to the environment.

*

During 2001, the industrial segment developed and constructed a new biological wastewater treatment facility at its Ohio location, installed our new "Bio-Fix" water treatment technology and subsequently achieved successful full scale operations in June of 2002.*

*

To continue our expansion into the nuclear mixed waste market.

To strive toward continued growth of the Company with the constant goal of improving shareholder value.

The corporate initiatives we had previously implemented and our many accomplishments during 2001 have set the stage for our anticipated growth and expansion during 2002. Within the nuclear segment, our backlog is at an all-time high, and we continue to treat increased levels of mixed waste. Within the industrial segment, we see new opportunities as we roll out our new 'Bio-Fix' process, which continues to expand our penetration into the water treatment market.

Finally, I would like to thank all of our employees for their hard work, our customers for their confidence and our shareholders for their loyalty during this unprecedented period of growth and transformation into a leading hazardous nuclear waste company. With a strong foundation in place, we foresee many new opportunities for our Company in the years ahead.

Dr. Louis F. Centofanti
Chairman, President and Chief Executive Officer

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PERMA-FIX ENVIRONMENTAL SERVICES Q & A

One of the most exciting market opportunities for our industrial segment are those hard to treat, highly organic, contaminated wastewaters. We have developed and constructed a new biological wastewater treatment facility and installed our new 'Bio-Fix' water treatment technology, which has already proven successful in treating such heavily contaminated wastewater streams.

Q *What is the size of the nuclear waste market and what is your role in it?*

A. The mixed waste market (waste containing both hazardous waste and low level radioactive waste) is national in scope. The U.S. Department of Energy ("DOE") is the largest generator of mixed waste. Due to the high cost to treat mixed waste, transportation expense is not a limiting factor.

The largest component of the mixed waste market was generated by the DOE in conjunction with nuclear weapons production. The DOE has estimated the cost to treat its mixed waste at a minimum of $7 billion. Estimates to treat new mixed waste generated annually by the DOE and commercial organizations currently stand at more than $150 million per year.

In June 1998, six "Broad Spectrum Contracts" were issued to serve as the first and currently, the only, procurement mechanism to treat mixed waste generated by federal government agencies including the DOE, three of which were awarded to M&EC. As an example of the magnitude of the market, DOE has estimated that $1.2 billion of low-level mixed waste will be generated at the DOE's Oak Ridge, Tennessee facility. To accelerate cleanup efforts at this facility, the State of Tennessee has recently obtained consent decrees requiring the DOE to treat and dispose of targeted levels of mixed waste.

Q What is unique about the Perma-Fix(R) Process?

A. Our process differs from those of our competitors in that it is not only a proven technology, but it is far simpler, and as a result, less expensive and safer to use. There are no dangerously high temperatures and no emissions. It is a very forgiving process -- if we make a mistake, we just go back and mix in more chemicals. The Perma-Fix Process is a batch process, so we have total control at all times. Because it employs a relatively safe technology, with little need for complicated safety features, it is far less expensive. The technology is proven and has been utilized for many years.

Q What is your strategy for capitalizing on the nuclear waste treatment market?

The Company has a minimum three-year head start on any potential entrants to the industry due to its proprietary technology, lengthy and restrictive government licensing requirements, the Company's extensive experience and impeccable safety record. As a result, the barriers to entry are significant.

Q What is the market like for the industrial services you provide?

A. Based on the Farkas Berkowitz Marketing Study, the industrial waste management market (hazardous and non-hazardous waste) is estimated at $40 billion with approximately $13 billion allocated to treatment services. The market is regional in nature as commercial waste generators do not want to incur the cost of transporting waste in excess of 200 to 300 miles.

The industrial waste market is highly regulated with few, if any, new or significantly modified hazardous waste permits and licenses granted by state or federal governments. In the unusual event that a new hazardous waste permit is awarded, the process typically encompasses 3-5 years. In general, industrial waste is considered to be a mature but fragmented market.

Q What is your marketing strategy for the industrial segment?

A. We maintain a staff of local salespeople at each facility, who call on potential customers. Our strategy is to dominate the geographic area surrounding each of our facilities. We presently dominate the lower southeast U.S. and will continue to grow via upgrades to existing facilities and tuck-in acquisition in the Southeast and Midwest.

Q Other than targeting the growing nuclear waste treatment market, what is the Company's overall strategy for future growth?

A. The Company's strategy is to treat industrial and mixed waste streams generated by commercial institutions and the federal government. The Company plans to enhance its position as one of the leading providers of industrial and mixed waste treatment services. Key elements of the Company's strategy include: Acquiring existing treatment facilities; investing in plant expansion, especially with proprietary technology; maximizing use of facility capacity; building strong relationships with federal government agencies, commercial institutions and industrial customers; and maintaining our expertise in waste treatment.

Photograph of two employees sampling nuclear waste upon receipt.	Photograph of Perma-Fix II processing unit at the M&EC facility

NUCLEAR WASTE MANAGEMENT

Perma-Fix currently operates three of the country's most unique facilities, which provide treatment and disposal of a variety of hazardous and radioactive mixed wastes. The Florida facility treats and stores radioactive material, hazardous and radioactive mixed wastes, PCB contaminated wastes and industrial hazardous and non-hazardous liquids, sludges and solids. The Diversified Scientific Services, Inc. facility is the only commercial facility of its kind in the U.S. and employs a unique energy recovery process that utilizes

various government agencies, M&EC also operates under three broad spectrum subcontracts issued by Bechtel-Jacobs Company, DOE's environmental program manager.

State-of-the-art, environmentally friendly technologies, and the Company's ability to obtain the necessary combination of permits and licenses, has made Perma-Fix extremely successful in this specialized field. A skilled technical staff, combined with sophisticated equipment and systems, ensures that all waste is destroyed in full compliance with all applicable regulations. Perma-Fix's turnkey service, from sampling through disposal, leaves the customers secure in the knowledge that their nuclear waste has been managed as safely and effectively as possible.

mixed waste as an energy source for the destruction of liquid organic mixed waste. During June of 2001, Perma-Fix completed the acquisition of East Tennessee Materials and Energy Corporation ("M&EC"), a very unique mixed waste treatment facility, situated on the Department of Energy complex. During the third quarter of 2001, M&EC completed construction of its new 150,000 sq. ft. state-of-the-art processing facility. In addition to our various mixed waste contracts with large industrial companies, nuclear utilities, research labs and

Photograph of employee monitoring wastewater tank and analyzing results

INDUSTRIAL WASTE MANAGEMENT

With six facilities strategically located throughout the United States, Perma-Fix has positioned itself as a leader in the treatment, disposal, and recycling of a broad range of hazardous and non-hazardous materials. From common waste streams to the most complex, Perma-Fix is uniquely suited to provide turnkey disposal services. From lab packs to bulk, Perma-Fix can manage every RCRA waste code in any quantity. Via extensive in-house transportation services, coupled with the complete integration of our facilities, Perma-Fix is committed to offering the most comprehensive waste management experience in the industry.

During 2001, Perma-Fix identified a new wastewater market and began construction of a biological wastewater system at our Ohio facility. The enhanced treatment technology was completed in early 2002, and full-scale operations were successfully achieved during the second quarter.

While leading the way today, Perma-Fix is laying the groundwork for the future. Already utilizing a proprietary treatment technology, which provides an environmentally safe alternative to incineration, Perma-Fix continues to pioneer technologies to benefit industry and the environment.

84%

Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) increased 85% or $4.5 million to a record $10.0 million.

Photograph of biological wastewater system at Ohio facility

CONSULTING ENGINEERING

Perma-Fix's engineering firm, Schreiber, Yonley & Associates, provides high quality environmental engineering services to industry, addressing the broad spectrum of environmental regulations and technologies. The firm has a solid reputation for delivering professional, practical and innovative engineering solutions to meet the client's environmental challenges Typical projects include regulatory permitting and compliance for existing and new facilities; auditing; agency and public communications; environmental project design; oversight and operation; remediation services and pollutant testing and research. With a dedicated staff of environmental professionals and a long working relationship in the industry, the firm not only supports and enhances the Company's facilities, but is a consistent and profitable business segment.

Photograph of M&EC facility located at DOE's K-25 Nuclear Weapons Plant

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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 December 31, 2001

or

[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from ____________________ to ____________________

Commission File No. 1-11596

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

(Exact name of registrant as specified in its charter)

Delaware	**58-1954497**
(State or other jurisdiction of incorporation or organization)	*(IRS Employer Identification Number)*
1940 N.W. 67th Place, Gainesville, FL	**32653**
(Address of principal executive offices)	*(Zip Code)*

(352) 373-4200

(Registrant's telephone number)

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

Title of each class	Name of each exchange on which registered
Common Stock, $.001 Par Value	Boston Stock Exchange

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. [ ]

The aggregate market value of the voting stock held by nonaffiliates of the Registrant as of March 28, 2002, based on the closing sale price of such stock as reported by NASDAQ on such day, was $99,911,945. For the purposes of this calculation, we have excluded shares held by officers and directors of the Company, and have included 9,530,745 shares held of record by Capital Bank Grawe-Gruppe. As discussed in Part VII under Item 12 - "Security Ownership of Certain Beneficial Owners," the Company does not consider Capital Bank to be an affiliate of the Company. The Company's Common Stock is listed on the NASDAQ SmallCap Market and the Boston Stock Exchange.

As of March 28, 2002, there were 34,087,125 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) is a Delaware corporation, engaged through its subsidiaries, in:

* Industrial Waste Management Services, which includes:
  * treatment, storage, processing, and disposal of hazardous and nonhazardous waste; and
  * industrial waste and wastewater management services, including the collection, treatment, processing and disposal of hazardous and non-hazardous waste.
* Nuclear Waste Management Services, which includes:
  * treatment, storage, processing and disposal of mixed waste (which is both low-level radioactive and hazardous waste); and
  * nuclear and low-level radioactive waste treatment, processing and disposal, which includes research, development, on and off-site waste remediation and processing.
* Consulting Engineering Services, which includes:
  * consulting 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 operations, maximize the profitability and to continue the research and development of innovative technologies for the treatment of nuclear, mixed waste and industrial waste.

We service research institutions, commercial 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.

Our home page on the Internet is at www.perma-fix.com. You can learn more about us by visiting that site.

Segment Information and Foreign and Domestic Operations and Export Sales
During 2001, we were engaged in eleven 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 of the segment to make decisions about resources to be allocated within the segment and assess its performance; and
* For which discrete financial information is available.

We therefore define our operating segments as each separate facility or location that we operate. These segments, however, exclude the Corporate headquarters which does not generate revenue and Perma-Fix of Memphis, Inc. ("PFM") a discontinued operation which is reported with Corporate headquarters. See Note 3 to Notes to Consolidated Financial Statements regarding discontinued operations.

Pursuant to FAS 131 we have aggregated our operating segments into three reportable segments to ease in the presentation and understanding of our business. Each reportable segment has a President who manages and makes decisions for the reportable segment as a whole. The results of the reportable segments are then

reviewed by the Company's chief operating decision maker. We used the following criteria to aggregate our segments:

* The nature of our products and services;
* The nature of the production processes;
* The type or class of customer for our products and services;
* The methods used to distribute our products or provide our services; and
* The nature of the regulatory environment.

During 2000, in conjunction with the expansion of the nuclear, mixed waste facilities, the acquisition of Diversified Scientific Services, Inc. and expanded Oak Ridge, Tennessee, mixed waste activities, the Company established a Nuclear Waste Management Services segment, in addition to the two previously reported segments.

Most of our activities are conducted nationwide, however, our Industrial Waste Management Services segment maintains a significant role in the Southeast and Midwest portions of the United States. We had no foreign operations or export sales during 2001.

Operating Segments
We have eleven operating segments which represent each separate facility or location that we operate. Seven of these

segments provide Industrial Waste Management Services, three of these segments provide Nuclear Waste Management Services and one segment provides Consulting Engineering Services 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 six of our treatment facilities and numerous related operations provided by our other location, 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 state-of-the-art 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 disposal production 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 for fuel bulking, 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 to meet the requirements of PFD's Clean Water Act pretreatment permit. Waste industrial oils and used motor oils are processed through high-speed centrifuges to produce a high quality fuel that is burned by industrial burners.

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"), F/K/A Chemical Conservation Corporation ("CCC"), is a RCRA permitted TSD facility located in Orlando, Florida, which was acquired effective June 1, 1999. 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.

Perma-Fix of South Georgia, Inc. ("PFSG"), F/K/A Chemical Conservation of Georgia, Inc. ("CCG"), is a RCRA permitted TSD facility located in Valdosta, Georgia, which was acquired effective June 1, 1999. 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 Michigan, Inc. ("PFMI"), F/K/A Chem-Met Services, Inc. ("CM"), is a permitted TSD facility located in Detroit, Michigan, which was acquired effective June 1, 1999. PFMI is a waste treatment and storage facility, situated on 60 acres, that treats hazardous, non-hazardous and inorganic wastes with solidification/chemical fixation and bulks, repackages and remanifests wastes that are determined to be unsuitable for treating. This large bulk processing facility utilizes a chemical fixation and stabilization process to produce a solid non-hazardous matrix that can safely be disposed of in a solid waste landfill.

Perma-Fix Government Services ("PFGS") F/K/A Chem-Met Government Services ("CMGS") specializes in the on-site (at the government's site) environmental and hazardous waste management, with emphasis on the management of large long-term federal and industrial on-site field service contracts. PFGS operates out of five (5) field service offices, located throughout the United States. PFGS currently manages six (6) hazardous waste management service contracts with the Defense Reutilization & Marketing Service ("DRMS"), working closely with the above noted permitted facilities for certain transportation and waste management services.

For 2001, the Company's Industrial Waste Management Services segment accounted for approximately $42,355,000 (or 56.9%) of the Company's total revenue, as compared to approximately $44,191,000 (or 74.7%) for 2000. See "Financial Statements and Supplementary Data" for further details.

NUCLEAR WASTE MANAGEMENT SERVICES, which includes nuclear, mixed and low-level radioactive waste treatment, processing and disposal services through three of our 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 Waste Management Services segment, as discussed below.

Perma-Fix of Florida, Inc. ("PFF"), located in Gainesville, Florida, is a uniquely permitted and licensed TSD. PFF 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. PFF is one of only a few facilities nationally to operate under both a hazardous waste permit and a nuclear 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 transitioned into a full mixed waste and low level radioactive processing facility. 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. These wastes contain mixed (low-level) radioactive materials and hazardous waste (flammable) constituents. Management believes that PFF currently processes approximately 80% of the available LSV waste in the country. 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.

Diversified Scientific Services, Inc. ("DSSI"), located in Kingston, Tennessee, is also a uniquely permitted and licensed TSD, which was acquired effective August 31, 2000. DSSI specializes in the processing and destruction of certain types of wastes containing both low-level radioactive and hazardous waste (mixed waste). DSSI, like PFF, is one of only a few facilities nationally to operate under both a hazardous waste permit and a nuclear 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 its 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 the Company's third mixed waste facility, which was acquired effective June 25, 2001. As with PFF and DSSI, M&EC also operates under both a hazardous waste permit and nuclear materials license. M&EC represents the largest of the Company's three mixed waste facilities, covering 150,000 sq.ft., and is located within the DOE K-25 complex. M&EC operates in a newly constructed facility, whose initial construction phase was completed during the third quarter of 2001 and became operational in September 2001. 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 (see "Oak Ridge Contract Award").

For 2001, the Company's nuclear waste management services business accounted for $28,932,000 (or 38.8%) of total revenue for 2001, as compared to $11,737,000 (or 19.9%) of total revenue for 2000. 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 2001, environmental engineering and regulatory compliance consulting services accounted for approximately $3,205,000 or 4.3% of our total revenue, as compared to approximately $3,211,000 or 5.4% in 2000. 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.

The Company is active in the research and development of technologies that allow it to address certain of its customers' environmental needs. To date, the Company's R&D efforts have resulted in the granting of three patents and the filing of an additional ten pending patent applications. The Company's flagship technology, the *Perma-Fix Process*, is a proprietary, cost effective, treatment technology that converts hazardous waste into non-hazardous material. Subsequently, the Company developed a new *Perma-Fix II* process ("New Process"), a multi-step treatment process that converts hazardous organic components into non-hazardous material. The New Process is particularly important to the Company's mixed waste strategy. Management believes that at least one third of DOE mixed wastes contain organic components.

The New 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 New Process. As of the date of this report, we have not received a patent for the New Process, and there are no assurances that such a patent will be issued. Until development of this New 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 from the Solids to a level where the Solids may be returned to the ground, 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 New Process in 2000. Patent applications have also been filed for processes to treat radon, selenium and other speciality materials utilizing variations of this new process. However, changes to current environmental laws and regulations could limit the use of the New Process or the disposal options available to the generator. See "BUSINESS--Permits and Licenses" and "BUSINESS--Research and Development."

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 five (5) to ten (10) years and, provided that the Company maintains a reasonable level of compliance, renew with minimal effort and cost. Historically, there have been no compelling challenges to the permit and license renewals. Moreover, as we expand our operations we may be required to obtain additional approvals, licenses or permits, and there can be no assurance that we will be able to do so. 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 Facility Operations Permit issued by the ODEQ Underground Injection Control Section for our two waste disposal injection wells, and a pre-treatment permit in order to discharge industrial wastewaters to the local Publically Owned Treatment Works. PFTS is also registered with the ODEQ and the Department of Transportation as a hazardous waste transporter.

PFFL operates under a general permit and used oil processors license 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. Broward County also issued PFFL a discharge Pre-Treatment permit that allows discharge of treated water to the Broward County Publically Owned Treatment Works.

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 Publically Owned Treatment Works and is a specification and off-specification used oil processor under the guidelines of the Ohio EPA.

PFMI operates under an operating license issued in 1982 as an existing facility for the treatment and storage of certain hazardous wastes. The operating license continues in effect in conjunction with the terms of a consent judgement as agreed to in 1991.

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

PFSG operates a hazardous treatment and storage facility under a RCRA Part B permit, issued by the State of Georgia.

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 TSD facilities presently have obtained all approvals, licenses and permits necessary to enable them to conduct their business as they are presently conducted. The failure of our TSD facilities to renew any of their present approvals, licenses and permits, or the termination of any such approvals, licenses or permits, could have a material adverse effect on us, our operations and financial condition.

Seasonality

We experience a seasonal slowdown in 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 along with the inability to generate consistent billable hours in the consulting engineering segment, resulting in a decrease in revenues and earnings during such period.

Dependence Upon a Single or Few Customers

The majority of our revenues for fiscal 2001 have been derived from hazardous, non-hazardous and mixed waste management services provided to a variety of industrial, commercial customers, 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, the loss of anyone or more would not have a material adverse effect on us. However, PFGS currently manages six (6) hazardous waste management service contracts with the DRMS. The DRMS is a subagency of the Defense Logistics Agency and the DOD, which is considered to be a single customer. The consolidated revenues for the DRMS contracts for 2001 total $5,996,000 (or 8.0%) of total revenue, as compared to $7,606,000 (or 12.9%) for the year ended December 31, 2000, which results in a decrease of $1,610,000 for 2001. Delays in the government's payment of amounts owing to the Company have resulted, from time to time, in a decrease in the Company's liquidity. Also, M&EC was awarded three contracts to treat certain waste at DOE facilities. See Oak Ridge Contract Award below for further discussion on the Oak Ridge Contracts.

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.

Oak Ridge Contract Award

The Company and M&EC entered into an agreement pursuant to which the Company and M&EC agreed to act as a team in the performance of certain contracts that either the Company or M&EC may obtain from

customers of the DOE regarding treatment and disposal of certain types of radioactive, hazardous or mixed waste (waste containing both hazardous and low level radioactive waste) at DOE facilities. In connection with proposals relating to the treatment and disposal of mixed waste at DOE's Oak Ridge, Tennessee system ("Oak Ridge"), M&EC and the Company made a joint proposal to DOE, with M&EC to act as the team leader. In June 1998 M&EC, as the team leader, was awarded three contracts ("Oak Ridge Contracts") by Bechtel Jacobs Company, LLC, 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 by Bechtel Jacobs Company, as a contract to the DOE, based on proposals by M&EC and the Company.

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 initial term of the contract represented a demonstration period for the team's successful treatment of the waste and the resulting ability of such processed waste to meet acceptance criteria for its ultimate disposal location. All three of the Company's mixed waste facilities (PFF, DSSI and M&EC) have successfully performed under the demonstration period and 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 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 an intent of recognizing an acceptable profit margin.

Effective June 25, 2001, the Company acquired M&EC and the facility became operational in the third quarter of 2001. Consolidated revenues under the Oak Ridge contracts for 2001 total $6,300,000 or 8.5% of total revenues for the year ended December 31, 2001. See "Management's Discussion and Analysis of Financial Conditions and Results of Operations -- Liquidity and Capital Resources of the Company," and "Note 4 to Notes to Consolidated Financial Statements."

Competitive Conditions

Competition is intense within certain product lines within the Industrial Waste Management Services 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 and many 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 our competitors. The intense competition for performing the services provided by us within the Industrial Waste Management Services segment has resulted in reduced gross margin levels for certain of those services.

The Nuclear Waste Management Services segment, however has only a few competitors and does not currently experience such competitive pressures. In addition, at present we believe there is only one other facility in the United States that provides low-level radioactive and hazardous waste processing of scintillation vials, which also requires both a radioactive materials license and a hazardous waste permit.

Competition in the waste management industry is likely to increase as the industry continues to mature, and as consolidations continue to occur. We believe that there are no formidable barriers to entry into certain of the on-site treatment businesses. However, 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. Certain of the non-hazardous waste operations, however, do not require such permits and, as a result, entry into these non-hazardous waste businesses would be easier. 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 Waste Management Services segment we participate nationwide. However, we believe that we are a significant participant in the delivery of off-site waste treatment services in the Southeast, Midwest and Southwest portions of the United States. We compete with TSD facilities operated by national, regional and independent environmental services firms located within a several hundred-mile radius of our facilities. Our subsidiaries, PFF, DSSI and M&EC, with permitted radiological activities solicit 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 2001, we spent approximately $4,598,000 in capital expenditures, which was principally for the expansion and improvements to our continuing operations. Included in this total is approximately $1,699,000 to complete the initial phase of the construction of the M&EC facility, incurred after the date of acquisition and a new waste water treatment system within the Dayton, Ohio, industrial facility, totaling approximately $972,000. This 2001 capital spending total includes $517,000 of which was financed. For 2002, we have budgeted approximately $11,000,000 for 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, and approximately $1,202,000 to comply with federal, state and local regulations in connection with remediation activities at four locations. See Note 9 to Notes to Consolidated Financial Statements. However, there is no assurance that we will have the funds available for such budgeted expenditures. See "Management's Discussion and Analysis of Financial Condition and Results of Operations -- Liquidity and Capital Resources of the Company." We do not anticipate the ongoing environmental expenditures to be significant, with the exception of remedial activities at the four locations discussed below.

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 RCRA storage and 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. 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 $541,000 for the estimated, remaining costs of remediating the Leased Property used by EPS, which will extend for a period of two (2) to three (3) years.

Due to the acquisition of 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 $973,000 for the estimated, remaining cost 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. Very low concentrations of certain chlorinated compounds have also been detected in the groundwater beneath the PFM facility. 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 and, as a result, do not believe that the presence of the low concentrations of chlorinated compounds at the PFM facility will have a material adverse effect upon the Company.

Pursuant to 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 recently been completed, and the remedial process selected. The planning and approval process will continue throughout 2002, with remedial activities beginning in 2003. For the year ended December 31, 2001, we have a remaining accrual of $1,400,000, of which we anticipate spending $108,000 during 2002, with the remaining $1,292,000 to be spent over the next five to seven years.

In conjunction with the acquisition of PFMI during 1999, we recognized a long-term environmental accrual of $2,120,000. This amount represented the Company's estimate of the long-term costs to remove contaminated soil at the PFMI acquired facility in Detroit, Michigan. The facility has pursued remedial activities over the past three years, and anticipates completion of such activities during 2003. The accrued balance at December 31, 2001, for the PFMI remediation is $620,000, of which we anticipate spending $507,000 during 2002, with the remaining $113,000 in 2003.

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 4 to Notes to Consolidated Financial Statements for discussion on the acquisition and Note 9 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 or in the providing of our products. 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 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 are planning for future growth of our research operations. We conduct research internally, and also through collaborations with universities. We feel that our investments in research have been rewarded by the discovery of the *Perma-Fix Process* and the New 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 1999, 2000 and 2001, we spent approximately $467,000, $359,000, and $428,000, 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, 2001, we employed approximately 498 persons, of which approximately 13 were assigned to our corporate office, approximately 28 were assigned to our Consulting Engineering Services segment, approximately 278 to the Industrial Waste Management Services segment of which 19 employees at one facility are represented by a collective bargaining unit, under a contract expiring on March 31,2006, and approximately 179 to the Nuclear Waste Management Services segment, including approximately 58 employees at the M&EC facility acquired in June 2001.

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. Because the field of environmental protection is both relatively new and rapidly developing, 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 us and our customers 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 nonhazardous 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 nonhazardous 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 the Company's 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 which is 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 may be incurred by us 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.

ITEM 2. PROPERTIES

Our principal executive offices are in Gainesville, Florida. Our Industrial Waste Management Services segment maintains facilities in Orlando and Ft. Lauderdale, Florida; Dayton, Ohio; Tulsa, Oklahoma; Valdosta, Georgia; and Detroit, Michigan. Our Nuclear Waste Management Services segment maintains facilities in Gainesville, Florida; Kingston, Tennessee; and Oak Ridge, Tennessee. Our Consulting Engineering Services are located in St. Louis, Missouri. We also maintain Government Services offices in Jacksonville, Florida; Anniston, Alabama; San Diego, California; Oklahoma City, Oklahoma; and Honolulu, Hawaii.

We own nine facilities, all of which are in the United States. Five of our facilities are subject to mortgages as placed by the Company's senior lender. In addition, we lease ten 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 Oak Ridge K-25 weapons facility of the DOE.

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.

ITEM 3. LEGAL PROCEEDINGS

PFMI, which was purchased by the Company effective June 1, 1999, has been advised that it is considered a potentially responsible party ("PRP") in three Superfund sites, two of which had no relationship with PFMI according to PFMI records. The relationship of PFMI to the third site, if any, is currently being investigated by the Company. PFO, which was also purchased by the Company effective June 1, 1999, has been advised that it is a PRP in two Superfund sites. The Company is currently investigating the relationship of PFO to the two sites.

PFFL has 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. As a result, we are unable to determine with any degree of certainty what exposure, if any, PFFL may have as a result of the documented release from the Site.

PFD is required to remediate a parcel of leased property ("Leased Property"), which was formerly used as a Resource Conservation and Recovery Act of 1976 storage facility that was operated as a storage and solvent recycling facility by a company that was merged with PFD prior to the Company's acquisition of PFD. The Leased Property contains certain contaminated waste in the soils and groundwater. The Company was indemnified by the seller of PFD for costs associated with remediating the Leased Property, which entails remediation of soil and/or groundwater restoration. However, during 1995, the seller filed for bankruptcy. Prior to the acquisition of PFD by the Company, the seller had established a trust fund ("Remediation Trust Fund"), which it funded with the seller's stock to support the remedial activity on the Leased Property pursuant to the agreement with the Ohio Environmental Protection Agency ("Ohio EPA"). After the Company purchased PFD, it was required to advance $250,000 into the Remediation Trust Fund due to the reduction in the value of the seller's stock that comprised the Remediation Trust Fund, which stock had been sold by the trustee prior to the seller's filing bankruptcy and has subsequently put an additional $192,000 into the Remediation Trust Fund. PFD has brought action against the owners and former operators of the Leased Property to remediate the Leased Property and/or to recover any cost incurred by PFD in connection therewith.

PFMI was previously named as a PRP under the Indiana state equivalent to the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 at the Four County Landfill site near DeLong, Indiana. In March 1999, PFMI the Indiana Department of Environmental Management ("IDEM"), and the members of the Four County Landfill Group and the Four County Landfill Operable Unit One RD/RA Group (collectively the "Groups") entered into an Agreed Order (the "Agreed Order") in an administrative proceeding before IDEM pursuant to which PFMI received a full and complete release from the Groups, a covenant from IDEM not to sue or take any administrative action against PFMI with respect to present or future liability relating to the site (with the exception of liability, if any, associated with loss of natural resources), and protection from contribution actions of third parties relating to the site. On July 13, 2001, the United States of America (the "Government") filed an action against PFMI and others, including members of the Groups, seeking to recover response costs allegedly incurred by the United States Environmental Protection Agency ("EPA") in connection with the Four County Landfill site. The suit is pending in the United States District Court for the Northern District of Indiana, South Bend Division, R#D5:01CVO513R. According to the demand, the Government is seeking to recover approximately $576,000. The complaint alleges that the defendants are jointly and severally liable. The action is currently stayed while the parties pursue settlement negotiations. At this point we are unable to determine what exposure PFMI may have to the Government in this matter.

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:

NAME	AGE	POSITION
Dr. Louis F. Centofanti	58	Chairman of the Board, President and Chief Executive Officer
Mr. Richard T. Kelecy	46	Chief Financial Officer, Vice President and Secretary
Mr. Roger Randall	58	President, Industrial Services
Mr. Larry McNamara	52	President, Nuclear Services

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 since July 1994. 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 holds a B.A. in Accounting and Business Administration from Westminster College.

MR. ROGER RANDALL

Mr. Randall was elected President of the Industrial Waste Management Services Segment in October 2000. He previously served as Vice President of Industrial Services from December 1997 to October 2000 and as Vice President/General Manager of PFD since its acquisition by the Company in June 1994. From June 1992 to June 1994, Mr. Randall served as General Manager of PFD under the ownership of Quadrex Corporation. From 1982 to June 1992, Mr. Randall served a variety of management roles at the Dayton facility, ranging from Operations Manager to Chairman of the Board and Chief Executive Officer under the ownership of Clark Processing, Inc. Previous to his involvement with the waste management industry, Mr. Randall spent 17 years in public education serving a variety of administrative roles. He has a B.S. from Wittenberg University and an M.A. from Wright State University.

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 1996 and 1995, 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.

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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. Effective December 1996, our Common Stock also began trading 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.

		2001		2000	
		Low	High	Low	High
Common Stock:	1st Quarter	$1.250	$2.094	$1.125	$1.938
	2nd Quarter	1.620	2.810	1.250	1.750
	3rd Quarter	2.160	3.650	1.375	1.719
	4th Quarter	2.400	3.890	1.313	2.438

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

As of March 20, 2002, there were approximately 300 shareholders 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 shareholders as of March 20, 2002, was approximately 3,944.

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.

In addition to the securities sold by us during 2001, as reported in our Forms 10-Q for the quarters ended March 31, 2001, June 30, 2001 and September 30, 2001, which were not registered under the Securities Act of 1933, as amended, we sold or issued during the fourth quarter of 2001 the following securities which were also not registered under the Act:

1. On or about December 31, 2001, pursuant to the terms of a certain Consulting Agreement ("Consulting Agreement") entered into effective as of January 1, 1998, the Company issued 4,057 shares of Common Stock in payment of accrued fees of $9,000 to Alfred C. Warrington IV, an outside, independent consultant to the Company, as consideration for certain consulting services rendered to the Company by Warrington from October 2000 through September 2001 reduced by an overpayment of fees during 1999. The issuance of Common Stock pursuant to the Consulting Agreement was a private placement under Section 4(2) of the Act. The Consulting Agreement provides that Warrington will be paid $1,000 per month of service to the Company, payable, at the option of Warrington (i) all in cash, (ii) sixty-five percent in shares of Common Stock and thirty-five percent in cash, or (iii) all in Common Stock. If Warrington elects to receive part or all of his compensation in Common Stock, such will be valued at seventy-five percent of its "Fair Market Value" (as defined in the Consulting Agreement). Warrington elected to receive all of his accrued compensation from October 2000 through the end of September 2001 in Common Stock. Warrington represented and warranted in the Consulting Agreement, inter alia, as follows: (i) the Common Stock is being acquired for Warrington's own account, and not on behalf of any other persons; (ii) Warrington is acquiring the Common Stock to hold for investment, and not with a view to the resale or distribution of all or any part of the Common Stock; (iii) Warrington will not sell or otherwise transfer the Common Stock in the absence of an effective registration statement under the Act, or an opinion of counsel satisfactory to the Company, that the transfer can be made without violating the registration provisions of the Act and the rules and regulations

promulgated thereunder; (iv) Warrington is an "accredited investor" as defined in Rule 501 of Regulation D as promulgated under the Act; (v) Warrington has such knowled