

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

FORM 10-K

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2015  
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  
State or other jurisdiction of incorporation or  
organization

58-1954497  
(IRS Employer Identification Number)

**8302 Dunwoody Place, #250, Atlanta, GA**  
(Address of principal executive offices)

**30350**  
(Zip Code)

**(770) 587-9898**  
(Registrant's telephone number)

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$.001 Par Value	NASDAQ Capital Markets

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes \_\_\_ No X

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes \_\_\_ No X

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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files).

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 a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated Filer  Non-accelerated Filer  Smaller reporting company

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes \_\_\_ No X

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, 2015), was approximately \$40,332,000. For the purposes of this calculation, all directors of the Registrant (as indicated in Item 12) are deemed to be affiliates. Such determination should not be deemed an admission that such directors, are, in fact, affiliates of the Registrant. The Company's Common Stock is listed on the NASDAQ Capital Markets.

As of March 6, 2016, there were 11,557,944 shares of the registrant's Common Stock, \$.001 par value, outstanding.

Documents incorporated by reference: None



PERMA-FIX ENVIRONMENTAL SERVICES, INC.

INDEX

	Page No.
<b>PART I</b>	
Item 1. Business	1
Item 1A. Risk Factors	8
Item 1B. Unresolved Staff Comments	17
Item 2. Properties	18
Item 3. Legal Proceedings	18
Item 4. Mine Safety Disclosure	18
<b>PART II</b>	
Item 5. Market for Registrant's Common Equity and Related Stockholder Matters	19
Item 6. Selected Financial Data	19
Item 7. Management's Discussion and Analysis of Financial Condition And Results of Operations	19
Item 7A. Quantitative and Qualitative Disclosures About Market Risk	36
Special Note Regarding Forward-Looking Statements	36
Item 8. Financial Statements and Supplementary Data	38
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	75
Item 9A. Controls and Procedures	75
Item 9B. Other Information	76
<b>PART III</b>	
Item 10. Directors, Executive Officers and Corporate Governance	76
Item 11. Executive Compensation	84
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	104
Item 13. Certain Relationships and Related Transactions, and Director Independence	107
Item 14. Principal Accountant Fees and Services	108
<b>PART IV</b>	
Item 15. Exhibits and Financial Statement Schedules	109

---

## 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), a Delaware corporation incorporated in December of 1990, is an environmental and environmental technology know-how company, which provides services through our three reporting segments as discussed below, Treatment, Services, and Medical.

On April 4, 2014, the Company completed the acquisition of a controlling interest in a Polish Company, a publicly traded shell company on the NewConnect (alternative share market run by the Warsaw Stock Exchange) in Poland and sold to the Polish shell all of the shares of Perma-Fix Medical Corporation, a Delaware corporation organized by the Company (incorporated in January 2014). Perma-Fix Medical Corporation's only asset was a worldwide license granted by the Company to use, develop and market the new process and technology developed by the Company in the production of Technetium-99 ("Tc-99m") for medical diagnostic applications. Tc-99m is the most widely used medical isotope in the world. Since the acquired shell company (now named Perma-Fix Medical S.A. or "PF Medical") did not meet the definition of a business under Accounting Standards Codification ("ASC") 805, "Business Combinations", the transaction was accounted for as a capital transaction. PF Medical, our majority-owned Polish subsidiary (of which we own approximately 60.5%), continues to perform research and development ("R&D") of its new medical isotope production technology. Currently, nearly all of the world's supply of Tc-99m is generated using highly enriched uranium at a small number of highly specialized reactors. Maintenance and unexpected shutdown of these reactors have in the past, created supply shortages throughout the world and the supply shortages are expected to continue as one of the specialized reactors is expected to cease production of and go off-line in the near future. PF Medical's new medical isotope production technology does not require the use of uranium which is expected to improve safety and can use standard research and commercial reactors, thereby eliminating the need for special purpose reactors, thus improving the reliability of supply. As of December 31, 2015, PF Medical has not generated any revenue as it is primarily in the R&D stage. In accordance with ASC 280, "Segment Reporting," the Company has determined that the operations of PF Medical meet the definition of a reportable segment. Accordingly, all of the historical numbers presented in the consolidated financial statements have been recast to include the operations of PF Medical as a separate reportable segment ("Medical Segment").

We have grown through acquisitions and internal growth. Our goal is to continue to focus on the efficient operation of our facilities and on-site activities, to continue to evaluate strategic acquisitions, to continue the R&D of innovative technologies to expand company service offering and to treat nuclear waste, mixed waste, and industrial waste. In addition, our majority-owned subsidiary, PF Medical, continues to dedicate resources to the R&D of its new medical isotope production technology and to take the necessary steps for eventual submittal of this technology for U.S. Food and Drug Administration ("FDA") and other regulatory approval and commercialization of this technology. The Company continues to focus on expansion into both commercial and international markets to help offset the uncertainties of government spending in the USA, from which a significant portion of the Company's revenue is derived. This includes new services, new customers and increased market share in our current markets.

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

The Company has three reportable segments. In accordance with Financial Accounting Standards Board ("FASB") ASC 280, "Segment Reporting", 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 chief operating decision maker "(CODM)" to make decisions about resources to be allocated and assess its performance; and
- for which discrete financial information is available

TREATMENT SEGMENT reporting includes:

- nuclear, low-level radioactive, mixed (waste containing both hazardous and low-level radioactive waste), hazardous and non-hazardous waste treatment, processing and disposal services primarily through four uniquely licensed (Nuclear Regulatory Commission or state equivalent) and permitted (U.S. Environmental Protection Agency (“EPA”) or state equivalent) treatment and storage facilities held by the following subsidiaries: Perma-Fix of Florida, Inc. (“PFF”), Diversified Scientific Services, Inc., (“DSSI”), Perma-Fix Northwest Richland, Inc. (“PFNWR”), and East Tennessee Materials & Energy Corporation (“M&EC”). The presence of nuclear and low-level radioactive constituents within the waste streams processed by this segment creates different and unique operational, processing and permitting/licensing requirements; and
- R&D activities to identify, develop and implement innovative waste processing techniques for problematic waste streams.

For 2015, the Treatment Segment accounted for \$41,318,000 or 66.2% of total revenue from continuing operations, as compared to \$42,343,000 or 74.2% of total revenue from continuing operations for 2014. See “– Dependence Upon a Single or Few Customers” for further details and a discussion as to our Segments’ contracts with the federal government or with others as a subcontractor to the federal government.

SERVICES SEGMENT reporting includes:

- on-site waste management services to commercial and government customers;
- Technical services, which include:
  - o professional radiological measurement and site survey of large government and commercial installations using advanced methods, technology and engineering;
  - o integrated Occupational Safety and Health services including industrial hygiene (“IH”) assessments; hazardous materials surveys, e.g., exposure monitoring; lead and asbestos management/abatement oversight; indoor air quality evaluations; health risk and exposure assessments; health & safety plan/program development, compliance auditing and training services; and Occupational Safety and Health Administration (“OSHA”) citation assistance; and
  - o global technical services providing consulting, engineering, project management, waste management, environmental, decontamination and decommissioning (“D&D”) field, technical, and management personnel and services to commercial and government customers;
- Nuclear services, which include:
  - o technology-based services including engineering, D&D, specialty services and construction, logistics, transportation, processing and disposal;
  - o remediation of nuclear licensed and federal facilities and the remediation cleanup of nuclear legacy sites. Such services capability includes: project investigation; radiological engineering; partial and total plant D&D; facility decontamination, dismantling, demolition, and planning; site restoration; site construction; logistics; transportation; and emergency response; and
- a company owned equipment calibration and maintenance laboratory that services, maintains, calibrates, and sources (i.e., rental) of health physics, IH and customized nuclear, environmental, and occupational safety and health (“NEOSH”) instrumentation;

For 2015, the Services Segment accounted for \$21,065,000 or 33.8% of total revenue from continuing operations, as compared to \$14,722,000 or 25.8% of total revenue from continuing operations for 2014. See “– Dependence Upon a Single or Few Customers” for further details and a discussion as to our Segments’ contracts with the federal government or with others as a subcontractor to the federal government

MEDICAL SEGMENT reporting includes: R&D costs for the new medical isotope production technology from our majority-owned Polish subsidiary, PF Medical. The Medical Segment has not generated any revenue as it continues to be primarily in the R&D stage. R&D costs consist primarily of employee salaries and benefits, laboratory costs, third party fees, and other related costs associated with the development of new technology.

Our Treatment and Services Segments provide services to research institutions, commercial companies, public utilities, and governmental agencies nationwide, including the U.S. Department of Energy (“DOE”) and U.S. Department of Defense (“DOD”). The distribution channels for our services are through direct sales to customers or via intermediaries.

Our corporate office is located at 8302 Dunwoody Place, Suite 250, Atlanta, Georgia 30350.

### **Foreign Revenue**

Our consolidated revenue from continuing operations for 2015 and 2014 included approximately \$199,000 or 0.3% and \$147,000 or 0.3%, respectively, from our United Kingdom operation, Perma-Fix UK Limited (“PF UK Limited”).

Our consolidated revenue from continuing operations for 2015 and 2014 included approximately \$279,000 or 0.4% and \$1,855,000 or 3.3%, respectively, from customers located in Canada.

### **Importance of Patents, Trademarks and Proprietary Technology**

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 to May 2022 and December 2020, for the service marks “Perma-Fix Environmental Services” and “Perma-Fix”, respectively. In addition, we have received registration for three service marks for our Safety & Ecology Holdings Corporation and its subsidiaries (collectively known as “Safety and Ecology Corporation” or “SEC”) to periods ranging from 2016 to 2017.

We are active in the R&D 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 thirteen active patents and the filing of several applications for which patents are pending. These thirteen active patents have remaining lives ranging from approximately three to sixteen years. These active patents granted to the Company include a patent for the new technology for the production of Tc-99m for certain types of medical applications, which we have granted a worldwide exclusive license to a U.S. subsidiary of PF Medical. This patent is effective through March 2032.

PF Medical has completed successful scale-up of its technology in producing Tc-99m. These tests have confirmed that its proprietary technology has produced clinically useful doses of Tc-99m. PF Medical plans to conduct additional tests in the near future as part of its multi-step validation and fine tuning of its Tc-99m technology.

### **Permits and Licenses**

Waste management service 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. We are dependent on our permits and licenses discussed below in order to operate our businesses. 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 terms 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. We believe that these permit and license requirements represent a potential barrier to entry for possible competitors.

PFF, located in Gainesville, Florida, operates its hazardous, mixed and low-level radioactive waste activities under a RCRA (“Resource Conservation and Recovery Act”) Part B permit, Toxic Substances Control Act (“TSCA”) authorization, Restricted RX Drug Distributor-Destruction license, and a radioactive materials license issued by the State of Florida.

DSSI, located in Kingston, Tennessee, conducts mixed and low-level radioactive waste storage and treatment activities under RCRA Part B permits and a radioactive materials license issued by the State of Tennessee Department of Environment and Conservation. Co-regulated TSCA Polychlorinated Biphenyl (“PCB”) wastes are also managed for PCB destruction under the EPA Approval effective June 2008.

M&EC, located in Oak Ridge, Tennessee, performs hazardous, low-level radioactive and mixed waste storage and treatment operations under a RCRA Part B permit and a radioactive materials license issued by the State of Tennessee Department of Environment and Conservation. Co-regulated TSCA PCB wastes are also managed under EPA Approvals applicable to site-specific treatment units.

PFNWR, located in Richland, Washington, operates a low-level radioactive waste processing facility as well as a mixed waste processing facility. Radioactive material processing is authorized under radioactive materials licenses issued by the State of Washington and mixed waste processing is additionally authorized under a RCRA Part B permit with TSCA authorization issued jointly by the State of Washington and the EPA.

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

PF Medical, our majority-owned Polish subsidiary, owns 100% of a U.S. subsidiary, Perma-Fix Medical Corporation (“PFMC”). PFMC holds a license granted to it by the Company to use, develop and market a new process and technology in the production of Tc-99m for medical diagnostic applications. PFMC’s only asset was this license granted to PFMC by the Company. PF Medical must complete development of its Tc-99m medical diagnostic technology and obtain approvals as to its Tc-99m medical diagnostic application from a certain U.S. governmental agency before it can market its process in the U.S. and may be required to obtain approvals from certain foreign governmental authorities before it can market its process in those respective foreign countries.

### Backlog

The Treatment 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. As of December 31, 2015, our Treatment Segment had a backlog of approximately \$4,698,000, as compared to approximately \$9,228,000 as of December 31, 2014. Additionally, the time it takes to process waste from the time it arrives may increase due to the types and complexities of the waste we are currently receiving. We typically process our backlog during periods of low waste receipts, which historically has been in the first or fourth quarter.

### Dependence Upon a Single or Few Customers

Our Treatment and Services Segments have significant relationships with the federal government, and continue to enter into contracts, directly as the prime contractor or indirectly for others as a subcontractor, with 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 or renegotiate the contracts on 30 days notice, 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.

We performed services relating to waste generated by the federal government representing approximately \$36,105,000 or 57.9% of our total revenue from continuing operations during 2015, as compared to \$34,780,000 or 60.9% of our total revenue from continuing operations during 2014.

Revenue generated by one of the customers (non-government related and excluded from above) in the Services Segment accounted for 10% or more of the total revenues generated from continuing operations for the twelve months ended December 31, 2015:

Customer	Year	Total Revenue	% of Total Revenue
Prologis Teterboro, LLC	2015	\$ 10,686,000	17.1%

As our revenues are project/event based where the completion of one contract with a specific customer may be replaced by another contract with a different customer from year to year, we do not believe the loss of one specific customer from one year to the next will generally have a material adverse effect on our operations and financial condition.

### **Competitive Conditions**

The Treatment Segment's largest competitor is EnergySolutions ("ES") which operates treatment and disposal facilities in Oak Ridge, TN and Clive, UT. Waste Control Specialists ("WCS"), which has licensed disposal capabilities in Andrews, TX, has also emerged as a competitor in the treatment market with increasing market share. Perma-Fix now has two options for disposal of treated nuclear waste and thus mitigates prior risk of EnergySolutions providing the only outlet for disposal. Recently, ES signed a definitive agreement to acquire WCS. In the event that this acquisition of WCS by ES is completed, ES will again become the owner of the only privately owned disposal sites for treated commercially generated nuclear waste. In such event, if ES should refuse to accept our nuclear and mixed waste or make demands on us that are unreasonable or cease operations at its sites, such may have a material adverse effect on us for commercial wastes. The Treatment Segment treats and disposes of DOE generated wastes largely at DOE owned sites and thus this potential acquisition should not have any significant adverse impact on our Treatment Segment. Smaller competitors are also present in the market place; however, we believe they do not present a significant challenge at this time. Our Treatment Segment currently solicits business primarily on a North American basis with both government and commercial clients; however, we are also focusing on emerging international markets for additional work.

We believe that the permitting and licensing requirements, and the cost to obtain such permits, are barriers to the entry of hazardous waste and radioactive and mixed waste activities as presently operated by our waste treatment subsidiaries. If the permit requirements for hazardous waste treatment, storage, and disposal ("TSD") activities and/or the licensing requirements for the handling of low level radioactive matters are eliminated or if such licenses or permits were made less rigorous to obtain, we believe such would allow companies to enter into these markets and provide greater competition.

Our Services Segment is engaged in highly competitive businesses in which a number of our government contracts and some of our commercial contracts are awarded through competitive bidding processes. The extent of such competition varies according to the industries and markets in which our customers operate as well as the geographic areas in which we operate. The degree and type of competition we face is also often influenced by the project specification being bid on and the different specialty skill sets of each bidder for which our Services Segment competes, especially projects subject to the governmental bid process. We also have the ability to prime federal government small business procurements (small business set asides). Large businesses are more willing to team with small businesses in order to be part of these often substantial procurements. There are a number of qualified small businesses in our market that will provide intense competition that may provide a challenge to our ability to maintain strong growth rates and acceptable profit margins. For international business there are additional competitors, many from within the country the work is to be performed, making winning work in foreign countries more challenging. If our Services Segment is unable to meet these competitive challenges, it could lose market share and experience an overall reduction in its profits.

Our Medical Segment operation consists of R&D activities for a new medical isotope production technology at our PF Medical, our majority-owned Polish subsidiary. Due to the world-wide shortage of Tc-99m resulting from limited special purpose reactors and the safety and environmental concerns associated with the current production methodology, a number of companies are also pioneering new methods in the production of medical isotope technology. The path to commercialization of a new medical isotope production technology is tedious, expensive, and is subject to extensive government regulations. Some of these companies, including NorthStar Medical Radioisotopes and Shine Medical Technologies, have entered into this potential market earlier than us, and may be further along in the developmental and commercialization stages. In addition, some companies have greater resources, including funding from government programs and collaboration with others, in the development of medical isotope production technology. If PF Medical is not able to successfully commercialize its new medical isotope technology in order to generate revenues, such may have a material impact to our financial results. See "Business—Importance of Patents, Trademarks and Proprietary Technology" for discussion of current status of development of technology for the production of Tc-99m.



## **Certain Environmental Expenditures and Potential Environmental Liabilities**

### *Environmental Liabilities*

We have three remediation projects, which are currently in progress at our Perma-Fix of Dayton, Inc. (“PFD”), Perma-Fix of Memphis, Inc. (“PFM”), and Perma-Fix South Georgia, Inc. (“PFSG”) subsidiaries, which are all included within our discontinued operations. These remediation projects principally entail the removal/remediation of contaminated soil and, in most cases, the remediation of surrounding ground water. Remediation activities at our Perma-Fix of Michigan, Inc. subsidiary (“PFMI”) in Brownstown, Michigan, were completed in 2015. These remediation activities are closely reviewed and monitored by the applicable state regulators.

At December 31, 2015, we had total accrued environmental remediation liabilities of \$900,000, of which \$9,000 is recorded as a current liability, which reflects a decrease of \$116,000 from the December 31, 2014 balance of \$1,016,000. The net decrease of \$116,000 represents payments on remediation projects at PFSG and PFM totaling approximately \$78,000 and a reduction in reserve of \$38,000 due to completion of remediation activities at our PFMI location.

No insurance or third party recovery was taken into account in determining our cost estimates or reserves.

The nature of our business exposes us to significant cost to comply with governmental environmental laws, rules and regulations and 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. Our competitors also devote resources to research and development and many such competitors have greater resources at their disposal than we do. PF Medical continues to commit significant resources to the R&D of its medical isotope production technology and to take the necessary steps for eventual submittal of this technology for FDA and other regulatory approval and commercialization of this technology. We have estimated that during 2015 and 2014, we spent approximately \$2,302,000 and \$1,315,000, respectively, in research and development activities, of which approximately \$2,114,000 and \$759,000, respectively, were spent by our Medical Segment for the R&D of its medical isotope production technology.

### **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, 2015, we employed approximately 262 employees, of whom 258 are full-time employees and four are part-time/temporary employees.

### **Governmental Regulation**

Environmental companies, such as us, 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 permitting and regulatory program applicable to companies, such as us, that treat, store or dispose of 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.

### **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 liabilities 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 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 “USNRC”) 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 permitting and radiological program of the PFF facility, and the State of Tennessee (with the USNRC oversight), Tennessee Department of Radiological Health, regulates permitting and the radiological program of the DSSI and M&EC facilities. The State of Washington (with the USNRC oversight) Department of Health, regulates permitting and the radiological operations of the PFNWR facility.

### **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 TSCA. 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 effect 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.

## ITEM 1A. RISK FACTORS

*The following are certain risk factors that could affect our business, financial performance, and results of operations. These risk factors should be considered in connection with evaluating the forward-looking statements contained in this Form 10-K, as the forward-looking statements are based on current expectations, and actual results and conditions could differ materially from the current expectations. Investing in our securities involves a high degree of risk, and before making an investment decision, you should carefully consider these risk factors as well as other information we include or incorporate by reference in the other reports we file with the Securities and Exchange Commission (the "Commission").*

### **Risks Relating to our Operations**

#### **Failure to maintain our financial assurance coverage that we are required to have in order to operate our permitted treatment, storage and disposal facilities could have a material adverse effect on us.**

American International Group ("AIG") provides our finite risk insurance policies which provide financial assurance to the applicable states for our permitted facilities in the event of unforeseen closure of those facilities. We are required to provide and to maintain financial assurance that guarantees to the state that in the event of closure, our permitted facilities will be closed in accordance with the regulations. Our initial policy provides a maximum of \$39,000,000 of financial assurance coverage. We also maintain a financial assurance policy for our PFNWR facility, which provides a maximum coverage of \$8,200,000. In the event that we are unable to obtain or maintain our financial assurance coverage for any reason, this could materially impact our operations and our permits which we are required to have in order to operate our treatment, storage, and disposal facilities.

#### **If we cannot maintain adequate insurance coverage, we will be unable to continue certain operations.**

Our business exposes us to various risks, including claims for causing damage to property and injuries to persons that may involve allegations of negligence or professional errors or omissions in the performance of our services. Such claims could be substantial. We believe that our insurance coverage is presently adequate and similar to, or greater than, the coverage maintained by other companies in the industry of our size. If we are unable to obtain adequate or required insurance coverage in the future, or if our insurance is not available at affordable rates, we would violate our permit conditions and other requirements of the environmental laws, rules, and regulations under which we operate. Such violations would render us unable to continue certain of our operations. These events would have a material adverse effect on our financial condition.

#### **The inability to maintain existing government contracts or win new government contracts over an extended period could have a material adverse effect on our operations and adversely affect our future revenues.**

A material amount of our segments' revenues are generated through various U.S. government contracts or subcontracts involving the U.S. government. Our revenues from governmental contracts and subcontracts relating to governmental facilities within our segments were approximately \$36,105,000 or 57.9% and \$34,780,000 or 60.9%, of our consolidated operating revenues from continuing operations for 2015 and 2014, respectively. Most of our government contracts or our subcontracts granted under government contracts are awarded through a regulated competitive bidding process. Some government contracts are awarded to multiple competitors, which increase overall competition and pricing pressure and may require us to make sustained post-award efforts to realize revenues under these government contracts. All contracts with, or subcontracts involving, the federal government are terminable, or subject to renegotiation, by the applicable governmental agency on 30 days notice, at the option of the governmental agency. If we fail to maintain or replace these relationships, or if a material contract is terminated or renegotiated in a manner that is materially adverse to us, our revenues and future operations could be materially adversely affected.

**Our existing and future customers may reduce or halt their spending on hazardous waste and nuclear services with outside vendors, including us.**

A variety of factors may cause our existing or future customers (including the federal government) to reduce or halt their spending on hazardous waste and nuclear services from outside vendors, including us. These factors include, but are not limited to:

- accidents, terrorism, natural disasters or other incidents occurring at nuclear facilities or involving shipments of nuclear materials;
- failure of the federal government to approve necessary budgets, or to reduce the amount of the budget necessary, to fund remediation of DOE and DOD sites;
- civic opposition to or changes in government policies regarding nuclear operations;
- a reduction in demand for nuclear generating capacity; or
- failure to perform under existing contracts, directly or indirectly, with the federal government.

These events could result in or cause the federal government to terminate or cancel its existing contracts involving us to treat, store or dispose of contaminated waste and/or to perform remediation projects, at one or more of the federal sites since all contracts with, or subcontracts involving, the federal government are terminable upon or subject to renegotiation at the option of the government on 30 days notice. These events also could adversely affect us to the extent that they result in the reduction or elimination of contractual requirements, lower demand for nuclear services, burdensome regulation, disruptions of shipments or production, increased operational costs or difficulties or increased liability for actual or threatened property damage or personal injury.

**Economic downturns and/or reductions in government funding could have a material negative impact on our businesses.**

Demand for our services has been, and we expect that demand will continue to be, subject to significant fluctuations due to a variety of factors beyond our control, including economic conditions, reductions in the budget for spending to remediate federal sites due to numerous reasons, including, without limitation, the substantial deficits that the federal government has and is continuing to incur. During economic downturns and large budget deficits that the federal government and many states are experiencing, the ability of private and government entities to spend on waste services, including nuclear services, may decline significantly. Our operations depend, in large part, upon governmental funding, particularly funding levels at the DOE. Significant reductions in the level of governmental funding (for example, the annual budget of the DOE) or specifically mandated levels for different programs that are important to our business could have a material adverse impact on our business, financial position, results of operations and cash flows.

**The loss of one or a few customers could have an adverse effect on us.**

One or a few governmental customers or governmental related customers have in the past, and may in the future, account for a significant portion of our revenue in any one year or over a period of several consecutive years. Because customers generally contract with us for specific projects, we may lose these significant customers from year to year as their projects with us are completed. Our inability to replace the business with other similar significant projects could have an adverse effect on our business and results of operations.

**As a government contractor, we are subject to extensive government regulation, and our failure to comply with applicable regulations could subject us to penalties that may restrict our ability to conduct our business.**

Our governmental contracts, which are primarily with the DOE or subcontracts relating to DOE sites, are a significant part of our business. Allowable costs under U.S. government contracts are subject to audit by the U.S. government. If these audits result in determinations that costs claimed as reimbursable are not allowed costs or were not allocated in accordance with applicable regulations, we could be required to reimburse the U.S. government for amounts previously received.

Governmental contracts or subcontracts involving governmental facilities are often subject to specific procurement regulations, contract provisions and a variety of other requirements relating to the formation, administration, performance and accounting of these contracts. Many of these contracts include express or implied certifications of compliance with applicable regulations and contractual provisions. If we fail to comply with any regulations, requirements or statutes, our existing governmental contracts or subcontracts involving governmental facilities could be terminated or we could be suspended from government contracting or subcontracting. If one or more of our governmental contracts or subcontracts are terminated for any reason, or if we are suspended or debarred from government work, we could suffer a significant reduction in expected revenues and profits. Furthermore, as a result of our governmental contracts or subcontracts involving governmental facilities, claims for civil or criminal fraud may be brought by the government or violations of these regulations, requirements or statutes.

**We are a holding company and depend, in large part, on receiving funds from our subsidiaries to fund our indebtedness.**

Because we are a holding company and operations are conducted through our subsidiaries, our ability to meet our obligations depends, in large part, on the operating performance and cash flows of our subsidiaries.

**Loss of certain key personnel could have a material adverse effect on us.**

Our success depends on the contributions of our key management, environmental and engineering personnel, especially Dr. Louis F. Centofanti, President and Chief Executive Officer. The loss of Dr. Centofanti could have a material adverse effect on our operations, revenues, prospects, and our ability to raise additional funds. Our future success depends on our ability to retain and expand our staff of qualified personnel, including environmental specialists and technicians, sales personnel, and engineers. Without qualified personnel, we may incur delays in rendering our services or be unable to render certain services. We cannot be certain that we will be successful in our efforts to attract and retain qualified personnel as their availability is limited due to the demand for hazardous waste management services and the highly competitive nature of the hazardous waste management industry. We do not maintain key person insurance on any of our employees, officers, or directors.

**Changes in environmental regulations and enforcement policies could subject us to additional liability and adversely affect our ability to continue certain operations.**

We cannot predict the extent to which our operations may be affected by future governmental enforcement policies as applied to existing laws, by changes to current environmental laws and regulations, or by the enactment of new environmental laws and regulations. Any predictions regarding possible liability under such laws are complicated further by current environmental laws which provide that we could be liable, jointly and severally, for certain activities of third parties over whom we have limited or no control.

**Our Treatment Segment has limited end disposal sites to utilize to dispose of its waste which could significantly impact our results of operations.**

Our Treatment Segment has limited options available for disposal of its nuclear waste. Currently, there are only two disposal sites, each site having different owners, for our low level radioactive waste we receive from non-governmental sites, allowing us to take advantage of the pricing competition between the two sites. There is currently an agreement whereby the owner of one site has agreed to buy the other site. If this transaction is consummated, we could become subject to the unreasonable demands as to pricing and other terms of the acquiring party that owns both disposal sites, which could significantly increase our cost of disposal and negatively impact our results of operations. Further, if such acquisition is completed, and the owner refuses to accept our waste or demands terms that we deem to be unreasonable, such could have a material adverse effect on us.

**Our businesses subject us to substantial potential environmental liability.**

Our business of rendering services in connection with management of waste, including certain types of hazardous waste, low-level radioactive waste, and mixed waste (waste containing both hazardous and low-level radioactive waste), subjects us to risks of liability for damages. Such liability could involve, without limitation:

- claims for clean-up costs, personal injury or damage to the environment in cases in which we are held responsible for the release of hazardous or radioactive 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.

Our operations are subject to numerous environmental laws and regulations. We have in the past, and could in the future, be subject to substantial fines, penalties, and sanctions for violations of environmental laws and substantial expenditures as a responsible party for the cost of remediating any property which may be contaminated by hazardous substances generated by us and disposed at such property, or transported by us to a site selected by us, including properties we own or lease.

**As our operations expand, we may be subject to increased litigation, which could have a negative impact on our future financial results.**

Our operations are highly regulated and we are subject to numerous laws and regulations regarding procedures for waste treatment, storage, recycling, transportation, and disposal activities, all of which may provide the basis for litigation against us. In recent years, the waste treatment industry has experienced a significant increase in so-called “toxic-tort” litigation as those injured by contamination seek to recover for personal injuries or property damage. We believe that, as our operations and activities expand, there will be a similar increase in the potential for litigation alleging that we have violated environmental laws or regulations or are responsible for contamination or pollution caused by our normal operations, negligence or other misconduct, or for accidents, which occur in the course of our business activities. Such litigation, if significant and not adequately insured against, could adversely affect our financial condition and our ability to fund our operations. Protracted litigation would likely cause us to spend significant amounts of our time, effort, and money. This could prevent our management from focusing on our operations and expansion.

**Our operations are subject to seasonal factors, which cause our revenues to fluctuate.**

We have historically experienced reduced revenues and losses during the first and fourth quarters of our fiscal years due to a seasonal slowdown in operations from poor weather conditions, overall reduced activities during these periods resulting from holiday periods, and finalization of government budgets during the fourth quarter of each year. During our second and third fiscal quarters there has historically been an increase in revenues and operating profits. If we do not continue to have increased revenues and profitability during the second and third fiscal quarters, this could have a material adverse effect on our results of operations and liquidity.

**If environmental regulation or enforcement is relaxed, the demand for our services will decrease.**

The demand for our services is substantially dependent upon the public's concern with, and the continuation and proliferation of, the laws and regulations governing the treatment, storage, recycling, and disposal of hazardous, non-hazardous, and low-level radioactive waste. A decrease in the level of public concern, the repeal or modification of these laws, or any significant relaxation of regulations relating to the treatment, storage, recycling, and disposal of hazardous waste and low-level radioactive waste would significantly reduce the demand for our services and could have a material adverse effect on our operations and financial condition. We are not aware of any current federal or state government or agency efforts in which a moratorium or limitation has been, or will be, placed upon the creation of new hazardous or radioactive waste regulations that would have a material adverse effect on us; however, no assurance can be made that such a moratorium or limitation will not be implemented in the future.

**We and our customers operate in a politically sensitive environment, and the public perception of nuclear power and radioactive materials can affect our customers and us.**

We and our customers operate in a politically sensitive environment. Opposition by third parties to particular projects can limit the handling and disposal of radioactive materials. Adverse public reaction to developments in the disposal of radioactive materials, including any high profile incident involving the discharge of radioactive materials, could directly affect our customers and indirectly affect our business. Adverse public reaction also could lead to increased regulation or outright prohibition, limitations on the activities of our customers, more onerous operating requirements or other conditions that could have a material adverse impact on our customers' and our business.

**We may be exposed to certain regulatory and financial risks related to climate change.**

Climate change is receiving ever increasing attention from scientists and legislators alike. The debate is ongoing as to the extent to which our climate is changing, the potential causes of this change and its potential impacts. Some attribute global warming to increased levels of greenhouse gases, including carbon dioxide, which has led to significant legislative and regulatory efforts to limit greenhouse gas emissions.

Presently there are no federally mandated greenhouse gas reduction requirements in the United States. However, there are a number of legislative and regulatory proposals to address greenhouse gas emissions, which are in various phases of discussion or implementation. The outcome of federal and state actions to address global climate change could result in a variety of regulatory programs including potential new regulations. Any adoption by federal or state governments mandating a substantial reduction in greenhouse gas emissions could increase costs associated with our operations. Until the timing, scope and extent of any future regulation becomes known, we cannot predict the effect on our financial position, operating results and cash flows.

**We may not be successful in winning new business mandates from our government and commercial customers or international customers.**

We must be successful in winning mandates from our government, commercial customers and international customers to replace revenues from projects that we have completed or that are nearing completion and to increase our revenues. Our business and operating results can be adversely affected by the size and timing of a single material contract.

**The elimination or any modification of the Price-Anderson Acts indemnification authority could have adverse consequences for our business.**

The Atomic Energy Act of 1954, as amended, or the AEA, comprehensively regulates the manufacture, use, and storage of radioactive materials. The Price-Anderson Act (“PAA”) supports the nuclear services industry by offering broad indemnification to DOE contractors for liabilities arising out of nuclear incidents at DOE nuclear facilities. That indemnification protects DOE prime contractor, but also similar companies that work under contract or subcontract for a DOE prime contract or transporting radioactive material to or from a site. The indemnification authority of the DOE under the PAA was extended through 2025 by the Energy Policy Act of 2005.

Under certain conditions, the PAA’s indemnification provisions may not apply to our processing of radioactive waste at governmental facilities, and do not apply to liabilities that we might incur while performing services as a contractor for the DOE and the nuclear energy industry. If an incident or evacuation is not covered under PAA indemnification, we could be held liable for damages, regardless of fault, which could have an adverse effect on our results of operations and financial condition. If such indemnification authority is not applicable in the future, our business could be adversely affected if the owners and operators of new facilities fail to retain our services in the absence of commercial adequate insurance and indemnification.

**We are engaged in highly competitive businesses and typically must bid against other competitors to obtain major contracts.**

We are engaged in highly competitive business in which most of our government contracts and some of our commercial contracts are awarded through competitive bidding processes. We compete with national and regional firms with nuclear and/or hazardous waste services practices, as well as small or local contractors. Some of our competitors have greater financial and other resources than we do, which can give them a competitive advantage. In addition, even if we are qualified to work on a new government contract, we might not be awarded the contract because of existing government policies designed to protect certain types of businesses and under-represented minority contractors. Although the Company has the ability to certify and bid government contract as a small business, there are a number of qualified small businesses in our market that will provide intense competition. For international business, which we continue to focus on, there are additional competitors, many from within the country the work is to be performed, making winning work in foreign countries more challenging. Competition places downward pressure on our contract prices and profit margins. If we are unable to meet these competitive challenges, we could lose market share and experience an overall reduction in our profits.

**Our failure to maintain our safety record could have an adverse effect on our business.**

Our safety record is critical to our reputation. In addition, many of our government and commercial customers require that we maintain certain specified safety record guidelines to be eligible to bid for contracts with these customers. Furthermore, contract terms may provide for automatic termination in the event that our safety record fails to adhere to agreed-upon guidelines during performance of the contract. As a result, our failure to maintain our safety record could have a material adverse effect on our business, financial condition and results of operations.

**We may be unable to utilize loss carryforwards in the future.**

We have approximately \$4,651,000 and \$52,784,000 in net operating loss carryforwards which will expire in various amounts starting in 2021 if not used against future federal and state income tax liabilities, respectively. Our net loss carryforwards are subject to various limitations. Our ability to use the net loss carryforwards depends on whether we are able to generate sufficient income in the future years. Further, our net loss carryforwards have not been audited or approved by the Internal Revenue Service.

**If our permit or other intangible assets become impaired, we may be required to record significant charge to earnings.**

Under accounting principles generally accepted in the United States (“U.S. GAAP”), we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Our permits are tested for impairment at least annually (the Company has no goodwill as of December 31, 2015). Factors that may be considered a change in circumstances, indicating that the carrying value of our permit or other intangible assets may not be recoverable, include a decline in stock price and market capitalization, reduced future cash flow estimates, and slower growth rates in our industry. We may be required, in the future, to record additional impairment charges in our financial statements, in which any impairment of our permit or other intangible assets is determined. Such impairment charges could negatively impact our results of operations.

**We bear the risk of cost overruns in fixed-price contracts. We may experience reduced profits or, in some cases, losses under these contracts if costs increase above our estimates.**

Our revenues may be earned under contracts that are fixed-price in nature. Fixed-price contracts expose us to a number of risks not inherent in cost-reimbursable contracts. Under fixed price and guaranteed maximum-price contracts, contract prices are established in part on cost and scheduling estimates which are based on a number of assumptions, including assumptions about future economic conditions, prices and availability of labor, equipment and materials, and other exigencies. If these estimates prove inaccurate, or if circumstances change such as unanticipated technical problems, difficulties in obtaining permits or approvals, changes in local laws or labor conditions, weather delays, cost of raw materials or our suppliers’ or subcontractors’ inability to perform, cost overruns may occur and we could experience reduced profits or, in some cases, a loss for that project. Errors or ambiguities as to contract specifications can also lead to cost-overruns.

**Adequate bonding is necessary for us to win certain types of new work.**

We are often required to provide performance bonds or other financial assurances to customers under fixed-price contracts, primarily within our Services Segment. These surety instruments indemnify the customer if we fail to perform our obligations under the contract. If a bond is required for a particular project and we are unable to obtain it due to insufficient liquidity or other reasons, we may not be able to pursue that project. We currently have a bonding facility but, the issuance of bonds under that facility is at the surety’s sole discretion. Moreover, due to events that affect the insurance and bonding markets generally, bonding may be more difficult to obtain in the future or may only be available at significant additional cost. There can be no assurance that bonds will continue to be available to us on reasonable terms. Our inability to obtain adequate bonding and, as a result, to bid on new work could have a material adverse effect on our business, financial condition and results of operations.



**PF Medical's inability to commercialize its medical isotope production technology may have a material impact on our financial results.**

Our majority-owned subsidiary, PF Medical, continues to dedicate significant resources to the R&D of its new medical isotope production technology. The ability to successfully commercialize this new technology is complex and an uncertain process requiring high levels of innovation and investment. As a majority owner of PF Medical, if PF Medical is unable to successfully commercialize this new technology and generate revenue, our financial result may be impacted materially resulting from the amount of costs to be incurred. Further, PF Medical must complete the development of the new medical isotope technology and obtain approvals as to its Tc-99m medical diagnostic application from a certain U.S. governmental agency before it can market its process in the U.S. and may be required to obtain approvals from certain foreign governmental authorities before it can market its process in those respective countries. We are prohibited from financing PF Medical with proceeds obtained under our Loan Agreement with PNC. In order to raise the necessary capital for PF Medical to complete its development of its new medical isotope technology and to obtain approvals required to market its technology, PF Medical may be required to obtain its own credit facility, which could restrict our rights as majority owner of PF Medical, or raise additional equity capital which, if successful, could result in a dilution of our ownership in PF Medical.

**Failure to maintain effective internal control over financial reporting or failure to remediate a material weakness in internal control over financial reporting could have a material adverse effect on our business, operating results, and stock price.**

Maintaining effective internal control over financial reporting is necessary for us to produce reliable financial reports and is important in helping to prevent financial fraud. If we are unable to maintain adequate internal controls, our business and operating results could be harmed. We are required to satisfy the requirements of Section 404 of Sarbanes Oxley and the related rules of the Commission, which require, among other things, management to assess annually the effectiveness of our internal control over financial reporting. If we are unable to maintain adequate internal control over financial reporting or effectively remediate any material weakness identified in internal control over financial reporting, there is a reasonable possibility that a misstatement of our annual or interim financial statements will not be prevented or detected in a timely manner. If we cannot produce reliable financial reports, investors could lose confidence in our reported financial information, the market price of our common stock could decline significantly, and our business, financial condition, and reputation could be harmed.

**Systems failures, interruptions or breaches of security and other cyber security risks could have an adverse effect on our financial condition and results of operations.**

We are subject to certain operational risks, including, but not limited to, data processing system failures and errors, cyber security breaches, inadequate or failed internal processes, customer or employee fraud and catastrophic failures resulting from terrorist acts or natural disasters. We depend upon data processing, software, communication, and information exchange on a variety of computing platforms and networks and over the internet. We also rely on the services of a variety of vendors to meet our data processing and communication needs. Despite our implemented security measures, we cannot be certain that all of our systems are entirely free from vulnerability to attack or other technological difficulties or failures. Information security risks have increased significantly due to the use of online banking channels and the increased sophistication and activities of organized crime, hackers, terrorists and other external parties. Our technologies, systems, and networks may become the target of cyber-attacks, computer viruses, malicious code, phishing attacks or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of our or our clients' confidential, proprietary and other information and the disruption of our business operations. A security breach could result in violations of applicable privacy and other laws, financial loss to us or to our customers, loss of confidence in our security measures, litigation exposure, and harm to our reputation. While we maintain a system of internal controls and procedures, any of these results could have a material adverse effect on our business, financial condition, results of operations or liquidity.

**Risks Relating to our Intellectual Property**

**If we cannot maintain our governmental permits or cannot obtain required permits, we may not be able to continue or expand our operations.**

We are a nuclear services and waste management company. Our business is 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, recycling, disposal, and transportation of hazardous and non-hazardous waste and low-level radioactive waste. We must obtain and maintain permits or licenses to conduct these activities in compliance with such laws and regulations. Failure to obtain and maintain the required permits or licenses would have a material adverse effect on our operations and financial condition. If any of our facilities are unable to maintain currently held permits or licenses or obtain any additional permits or licenses which may be required to conduct its operations, we may not be able to continue those operations at these facilities, which could have a material adverse effect on us.

**We believe our proprietary technology is important to us.**

We believe that it is important that we maintain our proprietary technologies. There can be no assurance that the steps taken by us to protect our proprietary technologies will be adequate to prevent misappropriation of these technologies by third parties. Misappropriation of our proprietary technology could have an adverse effect on our operations and financial condition. Changes to current environmental laws and regulations also could limit the use of our proprietary technology.

**Risks Relating to our Financial Position and Need for Financing**

**Breach of financial covenants in our Credit Facility could result in a default, triggering repayment of outstanding debt under the credit facility.**

Our Credit Facility with our bank contains financial covenants. A breach of any of these covenants could result in a default under our credit facility triggering our lender to immediately require the repayment of all outstanding debt under our Credit Facility and terminate all commitments to extend further credit. In the past, we had instances in which we failed to meet our quarterly fixed charge coverage ratio; however, these instances of non-compliance were waived by our lender. In the past, our lender also has amended the methodology in calculating the quarterly fixed charge coverage ratio and changed the minimum quarterly fixed charge coverage ratio requirement so we can meet our quarterly fixed charge coverage ratio. We met each of our quarterly fixed charge coverage ratio requirements in 2015. If we fail to meet the minimum quarterly fixed charge coverage ratio requirement in the future and our lender does not waive the non-compliance or revise our covenant so that we are in compliance, our lender could accelerate the payment of our borrowings under our credit facility. In such event, we may not have sufficient liquidity to repay our debt under our Credit Facility and other indebtedness.

**Our amount of debt could adversely affect our operations.**

At December 31, 2015, our aggregate consolidated debt was approximately \$9,988,000 (net of debt discount of \$50,000). Our Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated October 31, 2011, as amended (“Amended Loan Agreement”) provides for a total Credit Facility commitment of \$28,000,000, consisting of a \$12,000,000 revolving line of credit and a term loan of \$16,000,000. The maximum we can borrow under the revolving part of the Credit Facility is based on a percentage of the amount of our eligible receivables outstanding at any one time. As of December 31, 2015, we had borrowings under the revolving part of our Credit Facility of approximately \$2,349,000 and borrowing availability of up to an additional \$2,687,000 based on our outstanding eligible receivables. A lack of positive operating results could have material adverse consequences on our ability to operate our business. Our ability to make principal and interest payments, or to refinance indebtedness, will depend on both our and our subsidiaries' future operating performance and cash flow. Prevailing economic conditions, interest rate levels, and financial, competitive, business, and other factors affect us. Many of these factors are beyond our control. On March 24, 2016, we entered into an amendment to the Amended Loan Agreement with our lender which, among other things, extended the due date of our current Credit Facility to March 24, 2021. Pursuant to the amendment, the revolving line of credit is to remain at \$12,000,000 with the term loan revised to approximately \$6,100,000, which approximates our term loan balance under our existing Credit Facility at the date of the amendment.

**Our substantial level of indebtedness could limit our financial and operating activities, and adversely affect our ability to incur additional debt to fund future needs.**

We currently have a substantial amount of indebtedness. As a result, this level of indebtedness could, among other things:

- require us to dedicate a substantial portion of our cash flow to the payment of principal and interest, thereby reducing the funds available for operations and future business opportunities;
- make it more difficult for us to satisfy our obligations;
- limit our ability to borrow additional money if needed for other purposes, including working capital, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes, on satisfactory terms or at all;
- limit our ability to adjust to changing economic, business and competitive conditions;
- place us at a competitive disadvantage with competitors who may have less indebtedness or greater access to financing;
- make us more vulnerable to an increase in interest rates, a downturn in our operating performance or a decline in general economic conditions; and
- make us more susceptible to changes in credit ratings, which could impact our ability to obtain financing in the future and increase the cost of such financing.

Any of the foregoing could adversely impact our operating results, financial condition, and liquidity. Our ability to continue our operations depends on our ability to generate profitable operations or complete equity or debt financings to increase our capital.

**Risks Relating to our Common Stock**

**Issuance of substantial amounts of our Common Stock could depress our stock price.**

Any sales of substantial amounts of our Common Stock in the public market could cause an adverse effect on the market price of our Common Stock and could impair our ability to raise capital through the sale of additional equity securities. The issuance of our Common Stock will result in the dilution in the percentage membership interest of our stockholders and the dilution in ownership value. As of December 31, 2015, we had 11,543,590 shares of Common Stock outstanding.

In addition, as of December 31, 2015, we had outstanding options to purchase 218,200 shares of Common Stock at exercise prices from \$2.79 to \$14.75 per share and two outstanding warrants to purchase up to an aggregate 70,000 shares of Common Stock at exercise price of \$2.23 per share. Further, our preferred share rights plan, if triggered, could result in the issuance of a substantial amount of our Common Stock. The existence of this quantity of rights to purchase our Common Stock under the preferred share rights plan could result in a significant dilution in the percentage ownership interest of our stockholders and the dilution in ownership value. Future sales of the shares issuable could also depress the market price of our Common Stock.

**We do not intend to pay dividends on our Common Stock in the foreseeable future.**

Since our inception, we have not paid cash dividends on our Common Stock, and we do not anticipate paying any cash dividends in the foreseeable future. Our Credit Facility prohibits us from paying cash dividends on our Common Stock.

**The price of our Common Stock may fluctuate significantly, which may make it difficult for our stockholders to resell our Common Stock when a stockholder wants or at prices a stockholder finds attractive.**

The price of our Common Stock on the Nasdaq Capital Markets constantly changes. We expect that the market price of our Common Stock will continue to fluctuate. This may make it difficult for our stockholders to resell the Common Stock when a stockholder wants or at prices a stockholder finds attractive.

**Future issuance of our Common Stock could adversely affect the price of our Common Stock, our ability to raise funds in new stock offerings and could dilute the percentage ownership of our common stockholders.**

Future sales of substantial amounts of our Common Stock or equity-related securities in the public market, or the perception that such sales or conversions could occur, could adversely affect prevailing trading prices of our Common Stock and could dilute the value of Common Stock held by our existing stockholders. No prediction can be made as to the effect, if any, that future sales of shares of Common Stock or the availability of shares of Common Stock for future sale will have on the trading price of our Common Stock. Such future sales or conversions could also significantly reduce the percentage ownership of our common stockholders.

**Delaware law, certain of our charter provisions, our stock option plans, outstanding warrants and our Preferred Stock may inhibit a change of control under circumstances that could give you an opportunity to realize a premium over prevailing market prices.**

We are a Delaware corporation governed, in part, by the provisions of Section 203 of the General Corporation Law of Delaware, an anti-takeover law. In general, Section 203 prohibits a Delaware public corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. As a result of Section 203, potential acquirers may be discouraged from attempting to effect acquisition transactions with us, thereby possibly depriving our security holders of certain opportunities to sell, or otherwise dispose of, such securities at above-market prices pursuant to such transactions. Further, certain of our option plans provide for the immediate acceleration of, and removal of restrictions from, options and other awards under such plans upon a “change of control” (as defined in the respective plans). Such provisions may also have the result of discouraging acquisition of us.

We have authorized and unissued 18,160,568 (which includes shares issuable under outstanding options to purchase 218,200 shares of our Common Stock and two warrants to purchase 70,000 shares of our Common Stock) shares of Common Stock and 2,000,000 shares of Preferred Stock as of December 31, 2015 (which includes 600,000 shares of our Preferred Stock reserved for issuance under our preferred share rights plan). These unissued shares could be used by our management to make it more difficult, and thereby discourage an attempt to acquire control of us.

**Our Preferred Share Rights Plan (the “Rights Plan”) may adversely affect our stockholders.**

In May 2008, we adopted a Rights Plan, designed to ensure that all of our stockholders receive fair and equal treatment in the event of a proposed takeover or abusive tender offer. However, the Rights Plan may also have the effect of deterring, delaying, or preventing a change in control that might otherwise be in the best interests of our stockholders.

In general, under the terms of the Rights Plan, subject to certain limited exceptions, if a person or group acquires 20% or more of our Common Stock or a tender offer or exchange offer for 20% or more of our Common Stock is announced or commenced, our other stockholders may receive upon exercise of the rights (the “Rights”) issued under the Rights Plan the number of shares our Common Stock or of one-one hundredths of a share of our Series A Junior Participating Preferred Stock, par value \$.001 per share, having a value equal to two times the purchase price of the Right. In addition, if we are acquired in a merger or other business combination transaction in which we are not the survivor or more than 50% of our assets or earning power is sold or transferred, then each holder of a Right (other than the acquirer) will thereafter have the right to receive, upon exercise, common stock of the acquiring company having a value equal to two times the purchase price of the Right. The initial purchase price of each Right was \$13, subject to adjustment and adjustment for the reverse stock split.

The Rights will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by our board of directors. The Rights may be redeemed by us at \$0.001 per Right at any time before any person or group acquires 20% or more of our outstanding common stock. The rights should not interfere with any merger or other business combination approved by our board of directors. The Rights expire on May 2, 2018.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

Not Applicable.

**ITEM 2. PROPERTIES**

Our principal executive office is in Atlanta, Georgia. Our Business Center is located in Knoxville, Tennessee. Our Treatment Segment facilities are located in Gainesville, Florida; Kingston, Tennessee; Oak Ridge, Tennessee, and Richland, Washington. Our Services Segment maintains operations located in Knoxville, Tennessee and Blaydon On Tyne, England, of which we lease all of the properties. PF Medical maintains a leased administrative office in Mobile, Alabama. We maintain properties in Valdosta, Georgia; Brownstown, Michigan; and Memphis, Tennessee, which are all non-operational and are included within our discontinued operations.

The properties where three of our facilities operate on (Kingston, Tennessee; Gainesville, Florida; and Richland, Washington) are held by our senior lender as collateral for our credit facility. The Company currently leases properties in the following locations:

Location	Square Footage	Expiration of Lease
Knoxville, TN (Safety and Ecology Corporation or "SEC")	20,850	May 31, 2018
Knoxville, TN (SEC)	5,000	September 30, 2017
Blaydon On Tyne, England (Perma-Fix UK Limited)	1,000	Monthly
Pittsburgh, PA (SEC)	640	Monthly
Newport, KY (SEC)	1,566	Monthly
Oak Ridge, TN (M&EC)	150,000	January 31, 2018
Atlanta, GA (Corporate)	6,499	February 28, 2018
Mobile, AL (PF Medical)	1,200	August 31, 2017

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***Perma-Fix of South Georgia, Inc. ("PFSG")*

During the fourth quarter of 2015, an arbitrator ordered the Company to pay approximately \$1,278,000 to a contractor hired by the Company to perform emergency response services at the Company's PFSG subsidiary located in Valdosta, Georgia, which suffered an explosion and fire on August 14, 2013. The PFSG facility site is undergoing regulatory closure, subject to state and federal environmental permitting requirements and is included in the Company's discontinued operations. In arbitration, the contractor had sought payment of unpaid invoices totaling approximately \$1,400,000 (which included interest of approximately \$600,000) and contract penalties totaling approximately \$800,000. In addition, the contractor claimed approximately \$500,000 in attorney's fees. On December 7, 2015, the Company was notified of the following Arbitrator's award totaling approximately \$1,278,000, which was paid on December 31, 2015: (a) \$747,000 for unpaid invoices; (b) interest of \$400,000; (c) attorney fees of \$125,000; and (d) \$6,000 in certain administrative fees in connection with the arbitration. The Company had previously accrued approximately \$871,000 for this matter. The remaining charge of approximately \$407,000 was recorded by the Company in 2015 (in the fourth quarter of 2015), with \$400,000 recorded as interest expense.

**ITEM 4. MINE SAFETY DISCLOSURE**

Not Applicable.

## PART II

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

Our Common Stock is traded on the NASDAQ Capital Markets ("NASDAQ") under the symbol "PESI". 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.

		2015		2014	
		Low	High	Low	High
Common Stock	1 <sup>st</sup> Quarter	\$ 3.78	\$ 4.69	\$ 2.81	\$ 5.15
	2 <sup>nd</sup> Quarter	3.32	4.01	3.74	5.86
	3 <sup>rd</sup> Quarter	3.45	4.34	3.56	5.19
	4 <sup>th</sup> Quarter	3.65	4.37	3.65	5.01

As of February 29, 2016, there were approximately 212 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 February 29, 2016 was approximately 2,688.

Since our inception, we have not paid any cash dividends on our Common Stock and have no dividend policy. Our Amended Loan Agreement prohibits us from paying any cash dividends on our Common Stock without prior approval from the lender. We do not anticipate paying cash dividends on our outstanding Common Stock in the foreseeable future.

No sales of unregistered securities occurred during 2015. There were no purchases made by us or on behalf of us or any of our affiliated members of shares of our Common Stock during 2015.

We have adopted a preferred share rights plan, which is designed to protect us against certain creeping acquisitions, open market purchases, and certain mergers and other combinations with acquiring companies. See Item 1A. - Risk Factors – "Our Preferred Share Rights Plan (the "Rights Plan") may adversely affect our stockholders" as to further discussion relating to the terms of our Rights Plan.

See "Equity Compensation Plan" in Part III, Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholders Matter" for securities authorized for issuance under equity compensation plans which is incorporated herein by reference.

#### Reduction in Authorized Shares

On September 18, 2014 at the Company's 2014 Annual Meeting of Stockholders, the Company's stockholders approved an amendment to the Company's Restated Certificate of Incorporation to reduce the number of shares of Common Stock the Company is authorized to issue from 75,000,000 to 30,000,000. This amendment became effective on September 19, 2014.

### ITEM 6. SELECTED FINANCIAL DATA

Not required under Regulation S-K for smaller reporting companies.

### 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" ("MD&A") 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.

On April 4, 2014, the Company completed the acquisition of a controlling interest in a Polish Company, a publicly traded shell company on the NewConnect (alternative share market run by the Warsaw Stock Exchange) in Poland and sold to the Polish shell all of the shares of Perma-Fix Medical Corporation, a Delaware corporation organized by the Company (incorporated in January 2014). Perma-Fix Medical Corporation's only asset was a worldwide license granted by the Company to use, develop and market the new process and technology developed by the Company in the production of Technetium-99 ("Tc-99m") for medical diagnostic applications. Tc-99m is the most widely used medical isotope in the world. Since the acquired shell company (now named Perma-Fix Medical S.A. or "PF Medical") did not meet the definition of a business under Accounting Standards Codification ("ASC") 805, "Business Combinations", the transaction was accounted for as a capital transaction. PF Medical, our majority-owned Polish subsidiary, continues to perform research and development ("R&D") of its new medical isotope production technology. As of December 31, 2015, PF Medical has not generated any revenue as it is primarily in the R&D stage. In accordance with ASC 280, "Segment Reporting," the Company has determined that the operations of PF Medical meet the definition of a reportable segment. Accordingly, all of the historical numbers presented in the consolidated financial statements have been recast to include the operations of PF Medical as a separate reportable segment ("Medical Segment").

Management's discussion and analysis is based, among other things, upon our audited consolidated financial statements and includes our accounts, the accounts of our wholly-owned subsidiaries and the accounts of our majority-owned Polish subsidiary, 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.

#### **Review**

Revenue increased \$5,318,000 or 9.3% to \$62,383,000 for the twelve months ended December 31, 2015 from \$57,065,000 for the corresponding period of 2014. The revenue increase was primarily in the Services Segment where we saw an increase in revenue of \$6,343,000 or 43.1%. Revenue from our Treatment Segment decreased \$1,025,000 or 2.4% primarily from lower waste volume. Gross profit increased \$2,443,000 or 20.5% primarily due to the increase in revenue in the Services Segment and our continued cost reduction efforts throughout all segments. Selling, General, and Administrative ("SG&A") expenses decreased \$977,000 or 8.2% for the twelve months ended December 31, 2015 as compared to the corresponding period of 2014. R&D costs increased \$987,000 or 75.0% primarily due to R&D costs incurred for the new medical isotope production technology for our Medical Segment.

We had working capital of \$3,091,000 at December 31, 2015, as compared to working capital of \$372,000 at December 31, 2014, an increase of \$2,719,000.

#### **Business Environment, Outlook and Liquidity**

The Company's Treatment and Services Segments' business continues to be heavily dependent on services that we provide to governmental clients directly as the contractor or indirectly as a subcontractor. We believe demand for our services will continue to be subject to fluctuations due to a variety of factors beyond our control, including the current economic conditions and the manner in which the government will be required to spend funding to remediate federal sites. In addition, our governmental contracts and subcontracts relating to activities at governmental sites are generally subject to termination or renegotiation on 30 days notice at the government's option. Significant reductions in the level of governmental funding or specifically mandated levels for different programs that are important to our business could have a material adverse impact on our business, financial position, results of operations and cash flows.

Our majority-owned Polish subsidiary, PF Medical, continues to dedicate resources to the R&D of the new medical isotope production technology and to take the necessary steps for eventual submittal of this technology for U.S. Food and Drug Administration ("FDA") and other regulatory approval and commercialization of this technology. The need for capital by PF Medical may require PF Medical to obtain such capital requirements through obtaining its own credit facility or additional equity raise. A capital raise by PF Medical, if required and successful, could limit our ownership rights if accomplished by PF Medical entering into a new credit facility or could dilute our ownership if accomplished by raising additional equity capital.

The Company's cash flow requirements during 2015 were primarily financed by our operations, Credit Facility availability, and an equity raise by PF Medical ("see "Financing Activities" in "Liquidity and Capital Resources" in this MD&A for further information regarding the equity raise). The Company is continually reviewing operating costs and is committed to further reducing operating costs to bring them in line with revenue levels, when needed.

The Company continues to focus on expansion into both commercial and international markets to increase revenues in our Treatment and Services Segments to offset the uncertainties of government spending in the United States of America. This focus has resulted in an increase in revenue from commercial sources in 2015 which is expected to continue into 2016. In addition, the Company remains focused on increasing its international market share.

### Results of Operations

The reporting of financial results and pertinent discussions are tailored to our three reportable segments: The Treatment Segment ("Treatment"), the Services Segment ("Services"), and the Medical Segment ("Medical"). Our Medical Segment has not generated any revenue and all costs incurred are included within R&D:

Below are the results of continuing operations for our years ended December 31, 2015 and 2014 (amounts in thousands):

<u>(Consolidated)</u>	2015	%	2014	%
Net revenues	\$ 62,383	100.0	\$ 57,065	91.5
Cost of goods sold	48,032	77.0	45,157	79.1
Gross Profit	14,351	23.0	11,908	20.9
Selling, general and administrative	10,996	17.6	11,973	21.0
Research and development	2,302	3.7	1,315	2.2
Impairment of goodwill	—	—	380	.7
Gain on disposal of property and equipment	(80)	(.1)	(41)	—
Income (loss) from operations	1,133	1.8	(1,719)	(3.0)
Interest income	53	.1	27	—
Interest expense	(489)	(.8)	(616)	(1.1)
Interest expense – financing fees	(228)	(.3)	(192)	(.3)
Foreign exchange loss	(10)	—	(24)	—
Other	21	—	(51)	(.1)
Income (loss) from continuing operations before taxes	480	.8	(2,575)	(4.5)
Income tax expense	543	.9	417	.7
Loss from continuing operations	\$ (63)	(.1)	\$ (2,992)	(5.2)



## Summary - Years Ended December 31, 2015 and 2014

### Net Revenue

Consolidated revenues from continuing operations increased \$5,318,000 for the year ended December 31, 2015, compared to the year ended December 31, 2014, as follows:

(In thousands)	2015	% Revenue	2014	% Revenue	Change	% Change
<b>Treatment</b>						
Government waste	\$ 30,130	48.2	\$ 29,787	52.2	\$ 343	1.2
Hazardous/non-hazardous	4,344	7.0	4,498	7.9	(154)	(3.4)
Other nuclear waste	6,844	11.0	8,058	14.1	(1,214)	(15.1)
Total	41,318	66.2	42,343	74.2	(1,025)	(2.4)
<b>Services</b>						
Nuclear	18,743	30.0	9,917	17.4	8,826	89.0
Technical	2,322	3.8	4,805	8.4	(2,483)	(51.7)
Total	21,065	33.8	14,722	25.8	6,343	43.1
Total	\$ 62,383	100.0	\$ 57,065	100.0	\$ 5,318	9.3

### Net Revenue

Treatment Segment revenue decreased \$1,025,000 or 2.4% for the year ended December 31, 2015 over the same period in 2014. The decrease in revenue was primarily due to lower other nuclear waste revenue of approximately \$1,214,000 or 15.1% resulting from lower waste volume. Hazardous/non-hazardous revenue decreased approximately \$154,000 or 3.4% primarily due to lower averaged price waste. Revenue generated from government clients increased approximately \$343,000 or 1.2% primarily due to higher waste volume. Services Segment revenue increased \$6,343,000 or 43.1% in the twelve months ended December 31, 2015 as compared to the corresponding period of 2014 primarily as a result of increased revenue generated from a certain contract awarded to us in the second half of 2014 in the nuclear services area. Revenue generated from this contract was approximately \$10,686,000 in 2015 as compared to approximately \$3,591,000 for the corresponding period of 2014. The decrease in revenue in the technical services area was primarily due to the divestiture of our Schreiber, Yonley, and Associates subsidiary ("SYA") in July 2014, which generated revenues of approximately \$1,888,000 in 2014.

### Cost of Goods Sold

Cost of goods sold increased \$2,875,000 for the year ended December 31, 2015, as compared to the year ended December 31, 2014, as follows:

(In thousands)	2015	% Revenue	2014	% Revenue	Change
Treatment	\$ 30,408	73.6	\$ 31,863	75.2	\$ (1,455)
Services	17,624	83.7	13,294	90.3	4,330
Total	\$ 48,032	77.0	\$ 45,157	79.1	\$ 2,875

Cost of goods sold for the Treatment Segment decreased by \$1,455,000 or 4.6% primarily due to lower revenue. We incurred lower transportation, disposal, material and supplies, lab, and outside services costs totaling approximately \$850,000. Our overall fixed costs were lower by approximately \$636,000. We incurred a significant reduction in depreciation expense of approximately \$235,000 as certain fixed assets became fully depreciated in June 2014. Salaries and payroll-related expenses were lower by approximately \$715,000 due to lower headcount/healthcare/worker compensation costs which were partially offset by higher 401(k) matching expenses in the amount of approximately \$127,000 as we re-established our matching program effective January 1, 2015. In addition, general costs were lower by approximately \$83,000 over various categories as we continue to streamline our costs. These lower fixed costs were offset by higher maintenance costs of approximately \$270,000 resulting from maintenance of certain buildings and equipment. Services Segment cost of goods sold increased \$4,330,000 or 32.6% primarily due to the increase in revenue as discussed above, with increases primarily in labor, payroll related and travel expenses totaling approximately \$2,300,000, with the remaining increases in material and supplies of \$590,000 and disposal/transportation/lab costs totaling approximately \$1,500,000 resulting from waste shipped off-site in connection with certain projects. Included within cost of goods sold is depreciation and amortization expense of \$3,548,000 and \$3,826,000 for the twelve months ended December 31, 2015, and 2014, respectively.

### Gross Profit

Gross profit for the year ended December 31, 2015, was \$2,443,000 higher than 2014, as follows:

(In thousands)	2015	% Revenue	2014	% Revenue	Change
Treatment	\$ 10,910	26.4	\$ 10,480	24.8	\$ 430
Services	3,441	16.3	1,428	9.7	2,013
Total	<u>\$ 14,351</u>	<u>23.0</u>	<u>\$ 11,908</u>	<u>20.9</u>	<u>\$ 2,443</u>

Treatment Segment gross profit increased \$430,000 or 4.1% and gross margin increased to 26.4% from 24.8% primarily due to the reduction in certain of our fixed costs as discussed above and revenue mix. In the Services Segment, the increases in gross profit of \$2,013,000 and gross margin from 9.7% in 2014 to 16.3% in 2015 were primarily due to the increase in revenue as discussed above. In addition, in the second quarter of 2014, we completed a reduction in work force which reduced headcount in our effort to bring our cost structure in line with our revenue.

### SG&A

SG&A expenses decreased \$977,000 for the year ended December 31, 2015, as compared to the corresponding period for 2014, as follows:

(In thousands)	2015	% Revenue	2014	% Revenue	Change
Administrative	\$ 5,045	—	\$ 5,017	—	\$ 28
Treatment	3,721	9.0	3,849	9.1	(128)
Services	2,230	10.6	3,107	21.1	(877)
Total	<u>\$ 10,996</u>	<u>17.6</u>	<u>\$ 11,973</u>	<u>21.0</u>	<u>\$ (977)</u>

The decrease in SG&A was primarily within the Services Segment. Services SG&A was lower due to lower salaries and payroll related expenses of approximately \$345,000 from lower headcount which was attributed to a reduction in workforce which occurred in May 2014. Bad debt expense was lower by approximately \$690,000 resulting from a reduction in our allowance for doubtful account as a previously reserved amount for an uncertain account receivable was determined to be collectible at December 31, 2015. In 2014, we reserved approximately \$260,000 for a different uncertain account receivable. Amortization expense was lower by approximately \$140,000 due to certain amortizable intangible assets which became fully amortized in July 2014. The lower costs were partially offset by higher legal/business consulting expenses totaling approximately \$150,000 and higher travel costs of approximately \$70,000. The increase in administrative SG&A was primarily due to Management Incentive Plan (“MIP”) compensation earned by our executives totaling approximately \$214,000 based on fiscal year 2015 financial results and higher outside services expenses of approximately \$70,000 resulting from more consulting/business/legal matters. These higher costs were partially offset by lower salaries and payroll related expenses totaling approximately \$110,000 and lower general expenses of approximately \$116,000 in various categories as we continue to streamline costs. Treatment SG&A was lower primarily due to lower salaries and payroll related expenses totaling approximately \$210,000 and lower outside services expenses of approximately \$58,000 resulting from fewer consulting/business/legal matters. These lower costs were mostly offset by higher travel expenses of approximately \$36,000 and higher trade show costs by approximately \$113,000. Included in SG&A expenses is depreciation and amortization expense of \$169,000 and \$324,000 for the twelve months ended December 31, 2015 and 2014, respectively.

## R&D

(In thousands)	2015	2014	Change
Administrative	\$ 9	\$ 20	\$ (11)
Treatment	179	437	(258)
Services	—	99	(99)
PF Medical	2,114	759	1,355
Total	<u>\$ 2,302</u>	<u>\$ 1,315</u>	<u>\$ 987</u>

R&D costs increased \$987,000 for the year ended December 31, 2015, as compared to the corresponding period of 2014. The increase in R&D costs was primarily due to increased costs incurred by our Medical Segment in connection with the development of the new medical isotope technology. Research and development costs consist primarily of employee salaries and benefits, laboratory costs, third party fees, and other related costs associated with the development of new technologies and technological enhancement of new potential waste treatment processes. Included in research and development expense is depreciation expense of \$0 and \$90,000 for the twelve months ended December 31, 2015 and 2014, respectively.

### *Interest Expense*

Interest expense decreased \$127,000 for the twelve months ended December 31, 2015, as compared to the corresponding periods of 2014 primarily due to lower interest on our declining Term Loan balance and lower interest from the declining \$3,000,000 loan dated August 2, 2013. In addition, interest expense was lower in 2015 as compared to 2014 as interest expense for the twelve months ended December 31, 2014 included approximately \$37,000 in loss on debt modification (recorded in accordance with ASC 470-50, "Debt – Modification and Extinguishment") incurred as a result of an amended loan agreement that we entered into with our lender on April 14, 2014, which reduced our Revolving Credit line from \$18,000,000 to \$12,000,000. The lower interest expense was partially offset by higher interest expense resulting from higher average revolver loan balance over the period.

### *Interest Expense- Financing Fees*

Interest expense-financing fees increased \$36,000 for the twelve months ended December 31, 2015 as compared to the corresponding period of 2014. The increase was primarily due to the increase in monthly amortized financing fees associated with amendments to our Credit Facility that we entered into with our lender on April 14, 2014 and July 25, 2014.

### *Income Taxes*

We recorded income tax expenses of \$543,000 and \$417,000 for continuing operations for the years ended December 31, 2015 and 2014, respectively. The Company's effective tax rates were approximately 40.0% and (19.7%) for the twelve months ended December 31, 2015 and 2014, respectively. The differences in effective tax rate for the twelve months ended December 31, 2015 as compared to the twelve months ended December 31, 2014 was primarily due to deferred tax expense related to the Company's indefinite-lived intangibles not covered by valuation allowance.

### **Discontinued Operations**

The Company's discontinued operations consist of subsidiaries included in our Industrial Segment: (1) subsidiaries divested in 2011 and prior, (2) two previously closed locations, and (3) our Perma-Fix South Georgia, Inc. ("PFSG") facility which suffered a fire and explosion on August 14, 2013 and is currently undergoing regulatory closure. In June 2014, the Company entered into a settlement agreement and release with one of its insurance carriers, resulting in receipt of approximately \$3,850,000 in insurance settlement proceeds, which was used for working capital purposes. The Company subsequently recorded a gain on insurance settlement of approximately \$3,842,000 in connection with the fire and explosion at our PFSG facility. In 2014, the Company also recorded approximately \$723,000 of asset impairment charges as result of the Company's decision not to rebuild PFSG in accordance with ASC 360, "Property, Plant, and Equipment."

On May 11, 2015, PFSG received a Notice of Violation and proposed Consent Order (“CO”) from the Georgia Department of Natural Resources Environmental Protection Division (“GAEPD”), which alleged certain violations (resulting from the fire and explosion in 2013 and prior inspections of the facility) of Georgia hazardous waste management regulations and PFSG hazardous waste management permit. The proposed CO also established the process for formally closing the PFSG hazardous waste management facilities, should PFSG elect to do so; and proposed the assessment of a civil penalty. The final terms of the CO, including a \$201,200 civil penalty, were executed on July 1, 2015. The civil penalty was paid by the Company and recorded in the second quarter of 2015. On September 29, 2015, the Company submitted a draft Post-Closure Plan for review and approval by the GAEPD.

On June 4, 2015, Perma-Fix of Michigan, Inc. (“PFMI”) entered into a letter of intent (“LOI”) to sell the property PFMI formerly operated for a sale price of approximately \$450,000. PFMI is a closed location. As required by ASC 360, the Company concluded that tangible asset impairment existed for PFMI and recorded approximately \$150,000 in asset impairment charge in the second quarter of 2015. On September 29, 2015, PFMI entered into a Purchase Agreement (the “Agreement”) for the sale of the property for a sales price of \$450,000, which is subject to completion of a due diligence by the buyer. Upon execution of the Agreement, PFMI received a \$20,000 deposit which is being held in an escrow account (recorded as restricted cash within discontinued operations). In consideration of an amendment to the Agreement entered into on February 17, 2016, which included extending the time period for completion of the due diligence by the buyer, the buyer agreed to forfeit \$10,000 of the \$20,000 held in escrow to PFMI, which the \$10,000 was received by PFMI on February 18, 2016. Upon timely closing of the transaction, which is expected to be completed during the latter part of March 2016, the buyer shall receive a credit against the purchase price which shall be the lesser of \$15,000 and 50% of funds paid by the buyer for certain due diligence costs, and a credit against the purchase price of \$20,000. At closing, PFMI is expected to receive \$50,000 (which includes the remaining \$10,000 held in escrow) reduced by sales commissions and certain other closing costs and PFMI and the buyer will execute a Land Contract (“Contract”) which will provide for, among other things, the remaining balance of the purchase price of \$375,000 to be paid by the buyer in 60 equal monthly installment of approximately \$7,250, due on or before the 15<sup>th</sup> of each month immediately following the execution of the Contract. PFMI retains legal title to the property until the buyer fulfills the obligations under the Contract.

During the fourth quarter of 2015, an arbitrator ordered the Company to pay approximately \$1,278,000 to a contractor hired by the Company to perform emergency response services at our PFSG subsidiary resulting from the fire and explosion in 2013. As discussed above, PFSG is currently undergoing regulatory closure, subject to state and federal environmental permitting requirements. In arbitration, the contractor had sought payment of unpaid invoices totaling approximately \$1,400,000 (which included interest of approximately \$600,000) and contract penalties totaling approximately \$800,000. In addition, the contractor claimed approximately \$500,000 in attorney’s fees. On December 7, 2015, the Company was notified of the following Arbitrator’s award totaling approximately \$1,278,000, which was paid on December 31, 2015: (a) \$747,000 for unpaid invoices; (b) interest of \$400,000; (c) attorney fees of \$125,000; and (d) \$6,000 in certain administrative fees in connection with the arbitration. The Company had previously accrued approximately \$871,000 for this matter. The remaining charge of approximately \$407,000 was recorded by the Company in 2015 (in the fourth quarter), with \$400,000 recorded as interest expense.

Our discontinued operations had no revenue for the twelve months ended December 31, 2015 and 2014. We had a net loss of \$1,864,000 and net income of \$1,688,000 for our discontinued operations for the twelve months ended December 31, 2015 and 2014, respectively. Our net loss for the twelve months ended December 31, 2015 included the civil penalty recorded during the second quarter of 2015 for our PFSG facility and the asset impairment charge recorded during the second quarter of 2015 for our PFMI facility as discussed above. In addition, our net loss for the twelve months ended December 31, 2015 included the \$407,000 expenses recorded in the fourth quarter in connection with the arbitration award as discussed above. Our net income for our discontinued operations for the twelve months ended December 31, 2014, included a gain on insurance settlement of approximately \$3,842,000 and asset impairment charge of approximately \$723,000 in connection with the fire and explosion sustained at our PFSG subsidiary.

## Liquidity and Capital Resources

We achieved improvement in financial position and liquidity in the twelve months ended December 31, 2015 as compared to the corresponding period of 2014. As of December 31, 2015, working capital was approximately \$3,091,000, an improvement of \$2,719,000 from a working capital of approximately \$372,000 as of December 31, 2014. Our loss from continuing operations was \$63,000 as compared to a loss from continuing operations of \$2,992,000 in 2014. We generated positive cash flow from continuing operations of approximately \$1,704,000 in 2015 as compared to \$661,000 in 2014. The Company's financial results were negatively impacted by certain non-recurring charges incurred in 2015 within discontinued operations as discussed previously ("Discontinued Operations" above).

Our cash flow requirements during 2015 consisted of general working capital needs, scheduled payments on our debt obligations, remediation projects and planned capital expenditures and were financed primarily by our operations, Credit Facility, and equity raise by our majority-owned Polish subsidiary, PF Medical ("see "Financing Activities" below for further information regarding the equity raise). We continue to explore all potential sources of increasing revenue, including our Medical Segment's R&D of the new medical isotope production technology. We are continually reviewing operating costs and are committed to further reducing operating costs to bring them in line with revenue levels, when needed. Although there are no assurances, we believe that our cash flows from operations and our availability from our Credit Facility are sufficient to fund our operations for the next twelve months.

The Company's cash flow requirements for 2016 will consist primarily of general working capital needs, scheduled principal payments on our debt obligations and capital leases, remediation projects and planned capital expenditures which we plan to fund from operations and our Credit Facility availability. The Company's majority-owned Polish subsidiary, PF Medical, continues to dedicate resources to the R&D of the new medical isotope production technology and to take the necessary steps for eventual submittal of this technology for U.S. Food and Drug Administration ("FDA") and other regulatory approval and commercialization of this technology. Costs to be incurred for our Medical Segment for fiscal year 2016 is expected to be similar to costs incurred for fiscal year 2015, which was approximately \$2,114,000. The need for capital by PF Medical may require PF Medical to obtain its own credit facility or by additional equity raises. If PF Medical obtains its own separate credit facility, such could result in restrictions on our rights as a majority stock owner. Any equity raises, if successful, would result in dilution of the Company's ownership of PF Medical.

The following table reflects the cash flow activity during the twelve months ended December 31, 2015 and the corresponding period of 2014:

(In thousands)	2015	2014
Cash provided by operating activities of continuing operations	\$ 1,704	\$ 661
Cash used in operating activities of discontinued operations	(2,862)	(2,093)
Cash (used in) provided by investing activities of continuing operations	(492)	856
Proceeds from property insurance claims of discontinued operations	—	5,727
Cash used in financing activities of continuing operations	(490)	(1,769)
Principal repayment of long-term debt for discontinued operations	—	(35)
Effect of exchange rate changes on cash	(105)	—
(Decrease) increase in cash	<u>\$ (2,245)</u>	<u>\$ 3,347</u>

As of December 31, 2015, we were in a net borrowing position (Revolving Credit). We utilize a centralized cash management system, which includes a remittance lock box and is structured to accelerate collection activities and reduce cash balances, as idle cash is moved without delay to the Revolving Credit Facility or the Money Market account, if applicable. The cash balance at December 31, 2015, was primarily cash received from the sale of certain equity by our majority-owned Polish subsidiary, PF Medical, which is not a credit party under our Amended Loan Agreement with PNC Bank and minor petty cash and local account balances used for miscellaneous services and supplies at our remaining subsidiaries.

### *Operating Activities*

Accounts Receivable, net of allowances for doubtful accounts, totaled \$9,673,000 at December 31, 2015, an increase of \$1,401,000 from the December 31, 2014 balance of \$8,272,000. The increase was primarily due to increased revenue and timing of accounts receivable collections due to the variety of payment terms provided to our customers.

Accounts Payable, totaled \$6,109,000 at December 31, 2015, an increase of \$759,000 from the December 31, 2014 balance of \$5,350,000. The increase was primarily related to the increase in activity as evidenced by the increase in revenue. Also, we continue to manage payment terms with our vendors to maximize our cash position throughout all segments.

Disposal/transportation accrual as of December 31, 2015, totaled \$1,107,000, a decrease of \$630,000 over the December 31, 2014 balance of \$1,737,000. Our disposal accrual can vary based on revenue mix and the timing of waste shipments for final disposal. During the twelve months of 2015, we shipped more waste for disposal which is reflected in a lower inventory on-site as compared to year end 2014. In addition, we disposed of certain waste at a less expensive disposal outlet which positively impacted our disposal accrual.

We had working capital of \$3,091,000 (which included working capital of our discontinued operations) as of December 31, 2015, as compared to working capital of \$372,000 as of December 31, 2014. Our working capital was positively impacted primarily by cash generated from our operations offset by payments of certain of our current liabilities, the reduction of deferred revenue, and the reduction of our current-debt.

### *Investing Activities*

During 2015, our purchases of capital equipment totaled approximately \$623,000. These expenditures were primarily for improvements in our Treatment Segment. These capital expenditures were funded by cash from operations. We have budgeted approximately \$1,200,000 for 2016 capital expenditures for our Treatment and Services Segments to maintain operations and regulatory compliance requirements. Certain of these budgeted projects may either be delayed until later years or deferred altogether. We have traditionally incurred actual capital spending totals for a given year at less than the initial budgeted amount. We plan to fund our capital expenditures from cash from operations and/or financing. The initiation and timing of projects are also determined by financing alternatives or funds available for such capital projects.

### *Financing Activities*

The Company entered into an Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated October 31, 2011 ("Loan Agreement"), with PNC Bank, National Association ("PNC"), acting as agent and lender. The Loan Agreement, as amended ("Amended Loan Agreement") provided us with the following Credit Facility: (a) up to \$12,000,000 revolving credit ("Revolving Credit"), subject to the amount of borrowings based on a percentage of eligible receivables (as defined) and (b) a term loan ("Term Loan") of \$16,000,000, which required monthly installments of approximately \$190,000 (based on a seven-year amortization). PF Medical is not a credit party under our Amended Loan Agreement; as such, the Company is prohibited from financing PF Medical with proceeds obtained under our Amended Loan Agreement. As of December 31, 2015, the availability under our Revolving Credit was approximately \$2,687,000, based on our eligible receivables and was net of an indefinite reduction of borrowing availability of \$1,500,000. The Amended Loan Agreement authorized us to use the \$3,850,000 insurance settlement proceeds received on June 30, 2014 by our PFSG subsidiary (which suffered a fire and explosion on August 14, 2013 and is included within our discontinued operations) for working capital purposes but placed an indefinite reduction on our borrowing availability by the \$1,500,000 as discussed above.

Under the Amended Loan Agreement, which is to terminate on October 31, 2016, we had the option of paying an annual rate of interest due on the Revolving Credit at prime plus 2% or London Inter Bank Offer Rate ("LIBOR") plus 3% and the Term Loan at prime plus 2.5% or LIBOR plus 3.5%.

On March 24, 2016, we entered into an amendment to our Amended Loan Agreement with our lender which provided, among other things, the following (the amendment, together with the Amended Loan Agreement is collectively known as the “Revised Loan Agreement”):

- extended the due date of our current Credit Facility from October 31, 2016 to March 24, 2021 (“maturity date”);
- amended the Term loan to approximately \$6,100,000, which requires monthly payments of approximately \$102,000 (based on a five-year amortization) and which approximated the term loan balance under our existing Credit Facility at the date of the amendment. The revolving line of credit is to remain at up to \$12,000,000 (subject to the amount of borrowings based on a percentage of eligible receivables as previously defined under the Amended Loan Agreement);
- released \$1,000,000 of the \$1,500,000 borrowing availability hold that the lender had previously placed on the Company in connection with the insurance settlement proceeds received by our PFSG facility, which suffered a fire in 2013;
- revised the interest payment options to paying an annual rate of interest due on the Revolving Credit at prime plus 1.75% or LIBOR plus 2.75% and the Term Loan at prime plus 2.25% or LIBOR plus 3.25%; and
- revised our annual capital spending maximum limit from \$6,000,000 to \$3,000,000.

In connection with the amendment, the Company paid PNC a closing fee of \$70,000.

Pursuant to the amendment, we may terminate the Revised Loan Agreement upon 90 days’ prior written notice upon payment in full of its obligations under the Revised Loan Agreement. We have agreed to pay PNC 1.0% of the total financing in the event we pay off our obligations on or before March 23, 2017, .50% of the total financing if we pay off our obligations after March 23, 2017 but prior to or on March 23, 2018, and .25% of the total financing if we pay off our obligations after March 23, 2018 but prior to or on March 23, 2019. No early termination fee shall apply if we pay off its obligations after March 23, 2019.

All other terms of the Amended Loan Agreement remain principally unchanged.

In accordance with ASC 470, “Debt,” this post balance-sheet date agreement demonstrated the Company’s ability to refinance its short-term obligations on a long-term basis; therefore, the Company has reclassified our outstanding debt under the Amended Loan Agreement as discussed above at December 31, 2015 to long-term except for \$1,486,000 in principal payments that will be due by December 31, 2016.

Our Credit Facility with PNC contains certain financial covenants, along with customary representations and warranties. A breach of any of these financial covenants, unless waived by PNC, could result in a default under our Credit Facility allowing our lender to immediately require the repayment of all outstanding debt under our Credit Facility and terminate all commitments to extend further credit. The following table illustrates the quarterly financial covenant requirements under our Credit Facility as of December 31, 2015:

(Dollars in thousands)	Quarterly Requirement	1st Quarter Actual	2nd Quarter Actual	3rd Quarter Actual	4th Quarter Actual
<b>Senior Credit Facility</b>					
Fixed charge coverage ratio	1.15:1	2.79:1	1.70:1	1.42:1	1.30:1
Minimum tangible adjusted net worth	\$30,000	\$42,898	\$42,694	\$44,653	\$44,417

We met our quarterly fixed charge coverage ratio and minimum tangible adjusted net worth requirements in each of the quarters in 2015 in accordance with our Amended Loan Agreement and we expect to meet these requirements in 2016 under our loan agreement; however, if we fail to meet any of these quarterly financial covenant requirements in any of the quarters in 2016 and PNC does not waive the non-compliance or further revise our covenant so that we are in compliance, our lender could accelerate the repayment of borrowings under our loan agreement. In the event that our lender accelerates the payment of our borrowings, we may not have sufficient liquidity to repay our debt under our loan agreement and other indebtedness.

On August 2, 2013, we completed a lending transaction with Messrs. Robert Ferguson and William Lampson (“collectively, the “Lenders”), whereby we borrowed from the Lenders the sum of \$3,000,000 (the “Loan”). Mr. Ferguson serves as an advisor to the Company’s Board of Directors and is also a member of the Board of Directors of our majority-owned Polish Subsidiary (see “Related Party Transactions – Mr. Robert L. Ferguson” in this section for further information on Mr. Ferguson). The proceeds from the Loan were used for general working capital purposes. The promissory note is unsecured, with a term of three years with interest payable at a fixed interest rate of 2.99% per annum. The promissory note provided for monthly payments of accrued interest only during the first year of the Loan and monthly payments of \$125,000 in principal plus accrued interest for the second and third year of the Loan. In connection with the above Loan, the Lenders entered into a Subordination Agreement with our Credit Facility lender, whereby the Lenders agreed to subordinate payment under the Loan, and agreed that the Loan will be junior in right of payment to the Credit Facility in the event of default or bankruptcy or other insolvency proceeding by us. As consideration for us receiving the Loan, we issued a Warrant to each Lender to purchase up to 35,000 shares of our Common Stock at an exercise price of \$2.23 per share which was based on the closing price of our Common Stock at the closing of the transaction. The Warrants are exercisable six months from August 2, 2013 and expire on August 2, 2016. The fair value of the Warrants was estimated to be approximately \$59,000 using the Black-Scholes option pricing model. As further consideration for the Loan, we also issued an aggregate 90,000 shares of our Common Stock, with each Lender receiving 45,000 shares. We determined the fair value of the 90,000 shares of Common Stock to be approximately \$200,000 which was based on the closing price of the Company’s Common Stock of \$2.23 per share on August 2, 2013. The fair value of the Warrants and Common Stock and the related closing fees incurred from the transaction were recorded as a debt discount, which is being amortized using the effective interest method over the term of the Loan as interest expense – financing fees in the accompanying Consolidated Statements of Operations.

During August 2014, PF Medical executed stock subscription agreements totaling approximately \$2,357,000 for 250,000 shares of its Series E Common Stock to non-U.S. persons in an offshore private placement. In connection with this transaction, PF Medical has received approximately \$1,478,000 and \$67,000 in proceeds (before deduction for commissions and legal expenses relating to this offering of approximately \$242,000) in 2014 and 2015, respectively, for the 250,000 shares. As of December 31, 2015, the \$67,000 is being held in an escrow account and is expected to be released from the escrow account during the first quarter of 2016 for payment of certain expenses related to the medical isotope project. The Company has recorded the amount held in escrow as restricted cash on the accompanying Consolidated Balance Sheets as of December 31, 2015. PF Medical has elected to transfer all the rights, title, and interests of the remaining approximately 86,585 unpaid shares back to PF Medical. The unpaid shares to be transferred back to PF Medical will require the termination of the original stock subscription agreements for the 86,585 shares.

On April 30, 2015, PF Medical officially accepted a grant awarded by the National Centre for Research and Development (“NCRD”) in Poland to further develop and commercialize a novel prototype generator for the production of Tc-99m for use in cancer and cardiac imaging (“Generator Project”), subject to official issuance of the grant. The Generator Project is under the leadership and supervision of PF Medical and consists of four additional entities from Poland (together known as the “Generator Project team”). NCRD’s subsidy grant for the Generator Project is approximately \$2,547,000 and will be funded by NCRD over a four year period. If needed, PF Medical expects to fund any capital requirements in excess of the subsidy grant for the Generator Project allocated by NCRD through the sale of equity. Of the \$2,547,000 subsidy grant allocation, PF Medical will directly receive approximately \$745,000 over a four year period and the remaining amount will be allocated to other members of the Generator Project team to be used solely to support technology development and testing of the Generator Project. PF Medical officially was awarded the grant by NCRD in December 2015. The subsidy grant will be funded based on milestone completion of the Generator Project.

On July 24, 2015, PF Medical and Digirad Corporation, a Delaware corporation (“Digirad”), Nasdaq: DRAD, entered into a multi-year Tc-99m Supplier Agreement (the “Supplier Agreement”) and a Series F Stock Subscription Agreement (the “Subscription Agreement”), (together, the “Digirad Agreements”). The Supplier Agreement became effective upon the completion of the Subscription Agreement. Pursuant to the terms of the Digirad Agreements, Digirad purchased, in a private placement, 71,429 shares of PF Medical’s restricted Series F Stock for an aggregate purchase price of \$1,000,000, which was received on July 24, 2015. As of December 31, 2015, legal expenses incurred for this offering totaled approximately \$29,000. The 71,429 share investment made by Digirad constituted approximately 5.4% of the outstanding common shares of PF Medical. As a result of this transaction, the Company’s ownership interest in PF Medical diluted from approximately 64.0% to 60.5%. The Supplier Agreement provides, among other things, that upon PF Medical’s commercialization of certain Tc99m generators, Digirad will purchase agreed upon quantities of Tc-99m for its nuclear imaging operations either directly or in conjunction with its preferred nuclear pharmacy supplier and PF Medical will supply Digirad, or its preferred nuclear pharmacy supplier, with Tc-99m at a preferred pricing, subject to certain conditions.



**Off Balance Sheet Arrangements**

We have a number of routine operating leases, primarily related to office space rental, office equipment rental and equipment rental for contract projects as of December 31, 2015, which total approximately \$1,539,000, payable as follows: \$675,000 in 2016; \$670,000 in 2017; with the remaining \$194,000 in 2018.

From time to time, we are required to post standby letters of credit and various bonds to support contractual obligations to customers and other obligations, including facility closures. As of December 31, 2015, the total amount of these bonds and letters of credit outstanding was approximately \$1,738,000, of which the majority of the amount relates to various bonds. Our Treatment Segment facilities operate under licenses and permits that require financial assurance for closure and post-closure costs. We provide for these requirements through financial assurance policies. As of December 31, 2015, the closure and post-closure requirements for these facilities were approximately \$46,404,000. We have recorded approximately \$21,380,000 in a sinking fund related to these policies in other long term assets on the accompanying Consolidated Balance Sheets.

**Critical Accounting Policies**

In preparing the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("US GAAP"), 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.* We utilize a performance based methodology for purposes of revenue recognition in our Treatment Segment. As we accept more complex waste streams in this segment, the treatment of those waste streams become more complicated and 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 using a proportional performance method. The major processing phases are receipt, treatment/processing and shipment/final disposition. Upon receiving various wastes we recognize a certain percentage (generally ranging from 9.0% to 33%) of revenue as we incur costs for transportation, analyses and labor associated with the receipt of mixed waste. As the waste is processed, shipped and disposed of, we recognize the remaining revenue and the associated costs of transportation and burial. We review and evaluate our revenue recognition estimates and policies on an annual basis.

For our Services Segment, revenues on services are performed under time and material, fixed price, and cost-reimbursement contracts. Revenues and costs associated with fixed price contracts are recognized using the percentage of completion (efforts expended) method. We estimate our percentage of completion based on attainment of project milestones. Revenues and costs associated with time and material contracts are recognized as revenue when earned and costs are incurred.

Under cost-reimbursement contracts, we are reimbursed for costs incurred plus a certain percentage markup for indirect costs, in accordance with contract provisions. Costs incurred in excess of contract funding may be renegotiated for reimbursement. We also earn a fee based on the approved costs to complete the contract. We recognize this fee using the proportion of costs incurred to total estimated contract costs.

Contract costs include all direct labor, material and other non-labor costs and those indirect costs related to contract support, such as depreciation, fringe benefits, overhead labor, supplies, tools, repairs and equipment rental. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Changes in job performance, job conditions and estimated profitability, including those arising from contract penalty provisions and final contract settlements, may result in revisions to costs and income and are recognized in the period in which the revisions are determined.

*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 uncollectible. 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 balances that are uncollectible. 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 2.4% of revenue for 2015 and 13.2% of accounts receivable as of December 31, 2015. Additionally, this allowance was approximately 3.8% of revenue for 2014 and 20.8% of accounts receivable as of December 31, 2014.

*Intangible Assets.* Intangible assets consist primarily of the recognized value of the permits required to operate our business. We continually monitor the propriety of the carrying amount of our permits to determine whether current events and circumstances warrant adjustments to the carrying value.

Indefinite-lived intangible assets are not amortized but are reviewed for impairment annually as of October 1, or when events or changes in the business environment indicate that the carrying value may be impaired. If the fair value of the asset is less than the carrying amount, we perform a quantitative test to determine the fair value. The impairment loss, if any, is measured as the excess of the carrying value of the asset over its fair value. Significant judgments are inherent in these analyses and include assumptions for, among other factors, forecasted revenue, gross margin, growth rate, operating income, timing of expected future cash flows, and the determination of appropriate long term discount rates.

We performed impairment testing of our permits related to our Treatment reporting unit as of October 1, 2015 and 2014 and determined there was no impairment.

Intangible assets that have definite useful lives are amortized using the straight-line method over the estimated useful lives (with the exception of customer relationships which are amortized using an accelerated method) and are excluded from our annual intangible asset valuation review as of October 1. The Company has one definite-lived permit which was excluded from our annual impairment review as noted above. The net carrying value of this one definite-lived permit as of December 31, 2015 and 2014 was approximately \$172,000 and \$227,000, respectively. Intangible assets with definite useful lives are also tested for impairment whenever events or changes in circumstances indicate that the asset's carrying value may not be recoverable.

*Accrued Closure Costs and Asset Retirement Obligations ("ARO").* Accrued closure costs represent our estimated environmental liability to clean up our facilities as required by our permits, in the event of closure. ASC 410, "Asset Retirement and Environmental Obligations" requires that the discounted fair value of a liability for an ARO be recognized in the period in which it is incurred with the associated ARO capitalized as part of the carrying cost of the asset. The recognition of an ARO requires that management make numerous estimates, assumptions and judgments regarding such factors as estimated probabilities, timing of settlements, material and service costs, current technology, laws and regulations, and credit adjusted risk-free rate to be used. This estimate is inflated, using an inflation rate, to the expected time at which the closure will occur, and then discounted back, using a credit adjusted risk free rate, to the present value. ARO's are included within buildings as part of property and equipment and are depreciated over the estimated useful life of the property. In periods subsequent to initial measurement of the ARO, the Company must recognize period-to-period changes in the liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate of undiscounted cash flow. Increases in the ARO liability due to passage of time impact net income as accretion expense and are included in cost of goods sold in the Consolidated Statements of Operations. Changes in the estimated future cash flows costs underlying the obligations (resulting from changes or expansion at the facilities) require adjustment to the ARO liability calculated and are capitalized and charged as depreciation expense, in accordance with the Company's depreciation policy.

*Accrued Environmental Liabilities.* We have three remediation projects in progress (all within discontinued operations). 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 (See “Environmental Contingencies” below for further information of these liabilities).

*Disposal/Transportation Costs.* We accrue for waste disposal based upon a physical count of the 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.

*Stock-Based Compensation.* We account for stock-based compensation in accordance with ASC 718, “Compensation – Stock Compensation.” ASC 718 requires all stock-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. We use the Black-Scholes option-pricing model to determine the fair-value of stock-based awards which requires subjective assumptions. Assumptions used to estimate the fair value of stock options granted include the exercise price of the award, the expected term, the expected volatility of the Company’s stock over the option’s expected term, the risk-free interest rate over the option’s expected term, and the expected annual dividend yield. In addition, judgment is also required in estimating the amount of stock-based awards that are expected to be forfeited.

*Income Taxes.* The provision for income tax is determined in accordance with ASC 740, “Income Taxes.” As part of the process of preparing our consolidated financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. We record this amount as a provision or benefit for taxes. This process involves estimating our actual current tax exposure, including assessing the risks associated with tax audits, and assessing temporary differences resulting from different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities. We assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent that we believe recovery is not likely, we establish a valuation allowance. As of December 31, 2015, we had net deferred tax assets of approximately \$8,592,000 (which excludes a deferred tax liability relating to goodwill and indefinite lived intangible assets), which were primarily related to federal and state net operating loss (“NOL”) carryforwards, impairment charges, and closure costs. As of December 31, 2015 and 2014, we concluded that it was more likely than not that \$8,592,000 and \$7,896,000 of our deferred income tax assets would not be realized, and as such, a full valuation allowance was applied against those deferred income tax assets. Our net operating losses are subject to audit by the Internal Revenue Services, and, as a result, the amounts could be reduced.

#### **Known Trends and Uncertainties**

*Economic Conditions.* The Company’s business continues to be heavily dependent on services that we provide to governmental clients (including the U.S. Department of Energy (“DOE”) and U.S. Department of Defense (“DOD”)) directly as the contractor or indirectly as a subcontractor. We believe demand for our services will continue to be subject to fluctuations due to a variety of factors beyond our control, including the current economic conditions, the large budget deficit that the government is facing, and the manner in which the government will be required to spend funding to remediate federal sites. In addition, our governmental contracts and subcontracts relating to activities at governmental sites are generally subject to termination or renegotiation on 30 days notice at the government’s option. Significant reductions in the level of governmental funding or specifically mandated levels for different programs that are important to our business could have a material adverse impact on our business, financial position, results of operations and cash flows.

*Significant Customers.* Our Treatment and Services Segments have significant relationships with the federal government, and continue to enter into contracts, directly as the prime contractor or indirectly for others as a subcontractor, with 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 or renegotiate the contracts on 30 days notice, 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.

We performed services relating to waste generated by the federal government representing approximately \$36,105,000 or 57.9% of our total revenue from continuing operations during 2015, as compared to \$34,780,000 or 60.9% of our total revenue from continuing operations during 2014.

Revenue generated by one of the customers (non-government related and excluded from above) in the Services Segment accounted for 10% or more of the total revenues generated from continuing operations for the twelve months ended December 31, 2015:

Customer	Year	Total Revenue	% of Total Revenue
Prologis Teterboro, LLC	2015	\$ 10,686,000	17.1%

As our revenues are event/project based where the completion of one contract with a specific customer may be replaced by another contract with a different customer from year to year, we do not believe the loss of one specific customer from one year to the next will generally have a material adverse effect on our operations and financial condition.

*PF Medical*

The Company's majority-owned Polish subsidiary, PF Medical, continues to dedicate resources to the R&D of the new medical isotope production technology and to take the necessary steps for eventual submittal of this technology for U.S. Food and Drug Administration ("FDA") and other regulatory approval and commercialization of this technology. Costs to be incurred for our Medical Segment for fiscal year 2016 is expected to be similar to costs incurred for fiscal year 2015, which was approximately \$2,114,000. The need for capital by PF Medical may require PF Medical to obtain its own credit facility or by additional equity raises. If PF Medical obtains its own separate credit facility, such could result in restrictions on our rights as a majority stock owner. Any equity raises, if successful, may result in dilution of the Company's ownership of PF Medical.

**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. In the past, numerous third party disposal sites have improperly managed waste 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 further be notified, in the future, that we are a potentially responsible party ("PRP") at a remedial action site, which could have a material adverse effect.

Our subsidiaries where the remediation expenditures will be made are the former Environmental Processing Services, Inc. ("EPS") site in Dayton, Ohio, a former Resource Conservation and Recovery Act ("RCRA") storage facility operated by the former owners of Perma-Fix Dayton, Inc. ("PFD"), Perma-Fix of Memphis Inc.'s ("PFM" – closed location) site in Memphis, Tennessee, and PFSG facility in Valdosta, Georgia (in closure status). The environmental liability of PFD (as it relates to the remediation of the EPS site assumed by the Company as a result of the original acquisition of the PFD facility) was retained by the Company upon the sale of PFD in March 2008. Remediation activities at our Perma-Fix of Michigan, Inc. subsidiary ("PFMI" – closed location) in Brownstown, Michigan, were completed in 2015. All of the reserves noted above are within our discontinued operations. While no assurances can be made that we will be able to do so, we expect to fund the expenses to remediate these sites from funds generated internally.

At December 31, 2015, we had total accrued environmental remediation liabilities of \$900,000, of which \$9,000 is recorded as a current liability, which reflects a decrease of \$116,000 from the December 31, 2014 balance of \$1,016,000. The net decrease of \$116,000 represents payments on remediation projects at PFSG and PFM totaling approximately \$78,000 and reduction in reserve of \$38,000 due to completion of remediation activities at our PFMI location. The December 31, 2015 current and long-term accrued environmental liability at December 31, 2015 is summarized as follows (in thousands):

	Current Accrual	Long-term Accrual	Total
PFD	\$ 9	\$ 60	\$ 69
PFM	—	15	15
PFSG	—	816	816
Total liability	<u>\$ 9</u>	<u>\$ 891</u>	<u>\$ 900</u>

#### **Related Party Transactions**

##### *Mr. David Centofanti*

Mr. David Centofanti serves as our Vice President of Information Systems. For such position, he received annual compensation of \$168,000 and \$163,000 in 2015 and 2014, respectively. Mr. David Centofanti is the son of our Chief Executive Officer ("CEO"), President and a Board of Directors ("Board") member, Dr. Louis F. Centofanti. We believe the compensation received by Mr. Centofanti for his technical expertise which he provides to the Company is competitive and comparable to compensation we would have to pay to an unaffiliated third party with the same technical expertise.

##### *Mr. Robert L. Ferguson*

Mr. Robert L. Ferguson serves as an advisor to the Company's Board and is also a member of the Supervisory Board of Perma-Fix Medical, a majority-owned Polish subsidiary of the Company. Mr. Ferguson previously served as a Board member of the Company from June 2007 to February 2010 and again from August 2011 to September 2012. As an advisor to the Company's Board, Mr. Ferguson is paid \$4,000 monthly plus reasonable expenses. For such services, Mr. Ferguson received compensation of approximately \$58,000 and \$56,000 for the years ended December 31, 2015 and 2014, respectively. On August 2, 2013, the Company completed a lending transaction with Messrs. Robert Ferguson and William Lampson ("collectively, the "Lenders"), whereby the Company borrowed from the Lenders the sum of \$3,000,000 pursuant to the terms of a Loan and Security Purchase Agreement and promissory note (the "Loan") (see further details and terms of this Loan in this "MD&A – Liquidity and Capital Resources - Financing Activities").

##### *Mr. John Climaco*

On June 2, 2015, Mr. Climaco, a current member of the Company's Board and a member of the Strategic Advisory Committee of the Board, was elected as the Executive Vice President ("EVP") of PF Medical. As EVP of PF Medical, Mr. Climaco receives an annual salary of \$150,000 and is not eligible to receive compensation for serving on the Company's Board.

On October 17, 2014, the Company's Compensation and Stock Option Committee and the Board, with Mr. Climaco abstaining, approved a consulting agreement with Mr. Climaco. Pursuant to the consulting agreement, Mr. Climaco was responsible to, among other things:

- Review the Company's operations to restructure costs to render the Company more competitive;
- Evaluate all functions, including but not limited to sales, marketing, accounting, operations, and executive management as well as cost structures for each facility;
- Assist in the development of the Company's strategy opportunity and other initiatives, including but not limited to the development of the Company's medical isotope production technology; and
- Other assignments as determined by the Board.

Mr. Climaco was paid \$22,000 per month under the consulting agreement, beginning September 2014, until the termination of the consulting agreement effective June 2, 2015, upon Mr. Climaco's election as EVP of PF Medical. For his services under the consulting agreement, Mr. Climaco received approximately \$117,000 and \$107,000 in 2015 and 2014, respectively.

Mr. Climaco is also a Director of Digirad Corporation. On July 24, 2015 PF Medical and Digirad entered into a multi-year Tc-99m Supplier Agreement and a Subscription Agreement (see further details of these agreements in this "MD&A – Liquidity and Capital Resources - Financing Activities").

*Mr. Robert Schreiber, Jr.*

During March 2011, we entered into a five-year lease with Lawrence Properties LLC for certain office and warehouse space used and occupied by Schreiber, Yonley and Associates ("SYA"), a wholly owned subsidiary of the Company until its sale by the Company on July 29, 2014. Lawrence Properties is owned by Robert Schreiber, Jr., the President of SYA until his resignation on July 29, 2014, and Mr. Schreiber's spouse. Under the lease, which commenced June 1, 2011, we paid monthly rent of approximately \$11,400, which we believe was lower than costs charged by unrelated third party landlords. Rent payment under this lease was approximately \$72,000 for the year ended December 31, 2014. In connection with the Company's sale of SYA, the lease was terminated on July 29, 2014. Mr. Schreiber is a member of the Supervisory Board of PF Medical, a majority-owned Polish subsidiary of the Company.

*Employment Agreements*

We have employment agreements (each dated July 10, 2014) with each of Dr. Centofanti (our President and CEO), Ben Naccarato (our Chief Financial Officer or "CFO"), and John Lash (our Chief Operating Officer or "COO"). Each employment agreement provides for annual base salaries, bonuses, and other benefits commonly found in such agreements. In addition, each employment agreement provides that in the event of termination of such officer without cause or termination by the officer for good reason (as such terms are defined in the employment agreement), the terminated officer shall receive payments of an amount equal to benefits that have accrued as of the termination but had not yet been paid, plus an amount equal to one year's base salary at the time of termination. In addition, the employment agreements provide that in the event of a change in control (as defined in the employment agreements), all outstanding stock options to purchase the Company's Common Stock granted to, and held by, the officer covered by the employment agreement to be immediately vested and exercisable.

*Management Incentive Plans ("MIPs")*

The Company has an individual MIP for each of our CEO, CFO and COO, which awards cash compensation based on achievement of certain performance targets for fiscal year 2015. A total of approximately \$214,000 is payable as of December 31, 2015 under the three MIPs for 2015. Such payment is expected to be paid during the second quarter of 2016. On February 4, 2016, the Company's Compensation and Stock Option Committee approved individual MIPs for our CEO, COO, and CFO. The MIPs are effective as of January 1, 2016. Each MIP awards cash compensation based on achievement of performance thresholds, with the amount of such compensation established as a percentage of base salary. The potential target performance compensation ranges from 5% to 100% or \$13,962 to \$279,248 of the 2016 base salary for the CEO, 5% to 100% or \$10,750 to \$215,000 of the 2016 base salary for the COO, and 5% to 100% or \$11,033 to \$220,667 of the 2016 base salary for the CFO.

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

Not required under Regulation S-K for smaller reporting companies.

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

#### 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,

- demand for our services;
- reductions in the level of government funding in future years;
- expect to meet our quarterly financial covenant requirements in 2016;
- ability to achieve profitability;
- continue to focus on expansion into both commercial and international markets to increase revenues and expect to continue into 2016;
- may not have liquidity to repay debt if our lender accelerates payment of our borrowings;
- our cash flows from operations and our available liquidity from our Credit Facility are sufficient to service our obligations;
- manner in which the government will be required to spend funding to remediate federal sites;
- reducing operating costs to bring them in line with revenue level, when necessary;
- fund capital expenditures from cash from operations and/or financing;
- subsidy grant is expected to be funded based on milestone completion of the Generator Project;
- PF Medical expects to fund any capital requirements in excess of the subsidy grant for the Generator Project allocated by NCRD through the sale of equity;
- fund the expenses to remediate these sites (PFSG, PFD, and PFM) from funds generated internally;
- compliance with environmental regulations;
- supply shortage of Tc-99m is expected to continue as one of the specialized reactors is expected to cease production and go off-line in the near future;
- disposal site for our nuclear waste and negative effect if ownership of disposal site is in the hands of one owner; and
- potential effect of being a PRP;

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;
- ability to meet PNC covenant requirements;
- inability to collect in a timely manner a material amount of receivables;
- increased competitive pressures;
- inability to maintain and obtain required permits and approvals to conduct operations;
- public not accepting our new technology;
- inability to develop new and existing technologies in the conduct of operations;
- inability to maintain and obtain closure and operating insurance requirements;
- inability to retain or renew certain required permits;

- discovery of additional contamination or expanded contamination at any of the sites or facilities leased or owned by us or our subsidiaries which would result in a material increase in remediation expenditures;
- delays at our third party disposal site can extend collection of our receivables greater than twelve months;
- refusal of third party disposal sites to accept our waste;
- changes in federal, state and local laws and regulations, especially environmental laws and regulations, or in interpretation of such;
- requirements to obtain permits for TSD activities or licensing requirements to handle low level radioactive materials are limited or lessened;
- potential increases in equipment, maintenance, operating or labor costs;
- management retention and development;
- financial valuation of intangible assets is substantially more/less than expected;
- the requirement to use internally generated funds for purposes not presently anticipated;
- inability to continue to be profitable on an annualized basis;
- inability of the Company to maintain the listing of its Common Stock on the NASDAQ;
- terminations of contracts with federal agencies or subcontracts involving federal agencies, or reduction in amount of waste delivered to the Company under the contracts or subcontracts;
- renegotiation of contracts involving the federal government;
- federal government's inability or failure to provide necessary funding to remediate contaminated federal sites;
- disposal expense accrual could prove to be inadequate in the event the waste requires re-treatment;
- inability to raise capital on commercially reasonable terms;
- inability to increase profitable revenue;
- lender refuses to waive non-compliance or revises our covenant so that we are in compliance; and
- Risk factors contained in Item 1A of this report.



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

Index to Consolidated Financial Statements

<b>Consolidated Financial Statements</b>	<b>Page No.</b>
Report of Independent Registered Public Accounting Firm	39
Consolidated Balance Sheets as of December 31, 2015 and 2014	40
Consolidated Statements of Operations for the years ended December 31, 2015 and 2014	42
Consolidated Statements of Comprehensive Loss for the years ended December 31, 2015 and 2014	43
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2015 and 2014	44
Consolidated Statements of Cash Flows for the years ended December 31, 2015 and 2014	45
Notes to Consolidated Financial Statements	46

**Financial Statement Schedules**

In accordance with the rules of Regulation S-X, schedules are not submitted because they are not applicable to or required by the Company.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

We have audited the accompanying consolidated balance sheets of Perma-Fix Environmental Services, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the two years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements 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 are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. 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 as of December 31, 2015 and 2014, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

/s/ GRANT THORNTON LLP  
Atlanta, Georgia  
March 24, 2016

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

*As of December 31,*

(Amounts in Thousands, Except for Share and per Share Amounts)	2015	2014
<b>ASSETS</b>		
Current assets:		
Cash	\$ 1,435	\$ 3,680
Restricted cash	99	85
Accounts receivable, net of allowance for doubtful accounts of \$1,474 and \$2,170, respectively	9,673	8,272
Unbilled receivables - current	4,569	7,177
Inventories	377	498
Prepaid and other assets	4,081	3,010
Current assets related to discontinued operations	34	20
Total current assets	<u>20,268</u>	<u>22,742</u>
Property and equipment:		
Buildings and land	20,209	20,362
Equipment	35,191	35,434
Vehicles	422	403
Leasehold improvements	11,626	11,613
Office furniture and equipment	1,755	1,799
Construction-in-progress	497	336
	<u>69,700</u>	<u>69,947</u>
Less accumulated depreciation	<u>(49,707)</u>	<u>(47,123)</u>
Net property and equipment	19,993	22,824
Property and equipment related to discontinued operations	531	681
Intangibles and other long term assets:		
Permits	16,761	16,709
Other intangible assets - net	2,066	2,435
Unbilled receivables – non-current	707	273
Finite risk sinking fund	21,380	21,334
Other assets	1,359	1,253
Total assets	<u>\$ 83,065</u>	<u>\$ 88,251</u>

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

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

*As of December 31,*

(Amounts in Thousands, Except for Share and per Share Amounts)	2015	2014
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 6,109	\$ 5,350
Accrued expenses	4,341	4,540
Disposal/transportation accrual	1,107	1,737
Deferred revenue	2,631	4,873
Current liabilities related to discontinued operations	531	2,137
Current portion of long-term debt	1,508	2,319
Current portion of long-term debt - related party	950	1,414
Total current liabilities	17,177	22,370
Accrued closure costs	5,301	5,508
Other long-term liabilities	867	803
Deferred tax liabilities	5,424	5,006
Long-term liabilities related to discontinued operations	1,064	590
Long-term debt, less current portion	7,530	6,690
Long-term debt, less current portion - related party	—	949
Total long-term liabilities	20,186	19,546
Total liabilities	37,363	41,916
Commitments and Contingencies (Note 13)		
Series B Preferred Stock of subsidiary, \$1.00 par value; 1,467,396 shares authorized, 1,284,730 shares issued and outstanding, liquidation value \$1.00 per share plus accrued and unpaid dividends of \$867 and \$803, respectively		
	1,285	1,285
Stockholders' Equity:		
Preferred Stock, \$.001 par value; 2,000,000 shares authorized, no shares issued and outstanding	—	—
Common Stock, \$.001 par value; 30,000,000 shares authorized; 11,551,232 and 11,476,485 shares issued, respectively; 11,543,590 and 11,468,843 shares outstanding, respectively	11	11
Additional paid-in capital	105,556	104,541
Accumulated deficit	(60,808)	(59,758)
Accumulated other comprehensive (loss) income	(117)	11
Less Common Stock in treasury, at cost; 7,642 shares	(88)	(88)
Total Perma-Fix Environmental Services, Inc. stockholders' equity	44,554	44,717
Non-controlling interest	(137)	333
Total stockholders' equity	44,417	45,050
Total liabilities and stockholders' equity	\$ 83,065	\$ 88,251

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

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

*For the years ended December 31,*

(Amounts in Thousands, Except for Per Share Amounts)	2015	2014
Net revenues	\$ 62,383	\$ 57,065
Cost of goods sold	48,032	45,157
Gross profit	14,351	11,908
Selling, general and administrative expenses	10,996	11,973
Research and development	2,302	1,315
Impairment loss on goodwill	—	380
Gain on disposal of property and equipment	(80)	(41)
Income (loss) from operations	1,133	(1,719)
Other income (expense):		
Interest income	53	27
Interest expense	(489)	(616)
Interest expense-financing fees	(228)	(192)
Foreign currency loss	(10)	(24)
Other	21	(51)
Income (loss) from continuing operations before taxes	480	(2,575)
Income tax expense	543	417
Loss from continuing operations, net of taxes	(63)	(2,992)
(Loss) income from discontinued operations, net of taxes	(1,864)	1,688
Net loss	(1,927)	(1,304)
Net loss attributable to non-controlling interest	(877)	(79)
Net loss attributable to Perma-Fix Environmental Services, Inc. common stockholders	\$ (1,050)	\$ (1,225)
Net income (loss) per common share attributable to Perma-Fix Environmental Services, Inc. stockholders - basic and diluted:		
Continuing operations	\$ .07	\$ (.26)
Discontinued operations	(.16)	.15
Net loss per common share	\$ (.09)	\$ (.11)
Number of common shares used in computing net income (loss) per share:		
Basic	11,516	11,443
Diluted	11,552	11,443

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

**PERMA-FIX ENVIRONMENTAL SERVICES, INC**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**

*For the years ended December 31,*

(Amounts in Thousands)	2015	2014
Net loss	\$ (1,927)	\$ (1,304)
Other comprehensive (loss) income:		
Foreign currency translation (loss) gain	(128)	9
Total other comprehensive (loss) income	(128)	9
Comprehensive loss	(2,055)	(1,295)
Comprehensive loss attributable to non-controlling interest	(877)	(79)
Comprehensive loss attributable to Perma-Fix Environmental Services, Inc. common stockholders	\$ (1,178)	\$ (1,216)

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

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

*For the years ended December 31,  
(Amounts in Thousands, Except for Share Amounts)*

	Common Stock		Additional Paid-In Capital	Common Stock Held In Treasury	Accumulated Other Comprehensive Income (Loss)	Non- controlling Interest in Subsidiary	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount						
<b>Balance at December</b>								
<b>31, 2013</b>	<u>11,406,573</u>	<u>\$ 11</u>	<u>\$ 103,454</u>	<u>\$ (88)</u>	<u>\$ 2</u>	<u>\$ —</u>	<u>\$ (58,533)</u>	<u>\$ 44,846</u>
Net loss	—	—	—	—	—	(79)	(1,225)	(1,304)
Foreign currency translation	—	—	—	—	9	—	—	9
Issuance of stock - Perma-Fix Medical S.A., net of expenses of \$242	—	—	776	—	—	412	—	1,188
Issuance of Common Stock upon exercise of options	2,577	—	7	—	—	—	—	7
Issuance of Common Stock for services	67,335	—	270	—	—	—	—	270
Stock-Based Compensation	—	—	34	—	—	—	—	34
<b>Balance at December</b>								
<b>31, 2014</b>	<u>11,476,485</u>	<u>\$ 11</u>	<u>\$ 104,541</u>	<u>\$ (88)</u>	<u>\$ 11</u>	<u>\$ 333</u>	<u>\$ (59,758)</u>	<u>\$ 45,050</u>
Net loss	—	—	—	—	—	(877)	(1,050)	(1,927)
Foreign currency translation	—	—	—	—	(128)	—	—	(128)
Issuance of stock - Perma-Fix Medical S.A., net of expenses of \$29	—	—	631	—	—	407	—	1,038
Issuance of Common Stock upon exercise of options	3,423	—	10	—	—	—	—	10
Issuance of Common Stock for services	71,324	—	282	—	—	—	—	282
Stock-Based Compensation	—	—	92	—	—	—	—	92
<b>Balance at December</b>								
<b>31, 2015</b>	<u>11,551,232</u>	<u>\$ 11</u>	<u>\$ 105,556</u>	<u>\$ (88)</u>	<u>\$ (117)</u>	<u>\$ (137)</u>	<u>\$ (60,808)</u>	<u>\$ 44,417</u>

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

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

*For the years ended December 31,*

(Amounts in Thousands)	2015	2014
<b>Cash flows from operating activities:</b>		
Net loss	\$ (1,927)	\$ (1,304)
Less: (loss) income on discontinued operations, net of taxes	<u>(1,864)</u>	<u>1,688</u>
Loss from continuing operations	(63)	(2,992)
Adjustments to reconcile net income (loss) from continuing operations to cash used in operating activities:	—	
Depreciation and amortization	3,717	4,240
Amortization of debt discount	87	86
Deferred tax expense	418	539
(Recovery of) provision for bad debt reserves	(433)	291
Impairment of goodwill	—	380
Gain on disposal of plant, property and equipment	(80)	(41)
Loss on sale of SYA subsidiary (see Note 8)	—	53
Issuance of common stock for services	282	270
Stock-based compensation	92	34
Changes in operating assets and liabilities of continuing operations:		
Accounts receivable	(968)	(713)
Unbilled receivables	2,174	(2,606)
Prepaid expenses, inventories and other assets	135	1,149
Accounts payable, accrued expenses and unearned revenue	<u>(3,657)</u>	<u>(29)</u>
Cash provided by continuing operations	1,704	661
Cash used in discontinued operations	<u>(2,862)</u>	<u>(2,093)</u>
Cash used in operating activities	<u>(1,158)</u>	<u>(1,432)</u>
<b>Cash flows from investing activities:</b>		
Purchases of property and equipment	(623)	(464)
Proceeds from sale of plant, property and equipment	127	133
Proceeds from sale of SYA subsidiary (see Note 8)	50	1,214
Payments to finite risk sinking fund	<u>(46)</u>	<u>(27)</u>
Cash (used in) provided by investing activities of continuing operations	(492)	856
Proceeds from property insurance claims of discontinued operations (see Note 8)	—	<u>5,727</u>
Cash (used in) provided by investing activities	<u>(492)</u>	<u>6,583</u>
<b>Cash flows from financing activities:</b>		
Borrowing on revolving credit	67,614	66,644
Repayments of revolving credit	(65,265)	(66,644)
Principal repayments of long term debt	(2,320)	(2,463)
Principal repayments of long term debt - related party	(1,500)	(500)
Proceeds from issuance of common stock	10	7
Issuance of stock - Perma-Fix Medical S.A., net of expenses of \$29 and \$242, respectively	<u>971</u>	<u>1,187</u>
Cash used in financing activities of continuing operations	(490)	(1,769)
Principal repayment of long-term debt for discontinued operations	—	<u>(35)</u>
Cash used in financing activities	<u>(490)</u>	<u>(1,804)</u>
Effect of exchange rate changes on cash	<u>(105)</u>	<u>—</u>
(Decrease) increase in cash	(2,245)	3,347
Cash at beginning of period	<u>3,680</u>	<u>333</u>
Cash at end of period	<u>\$ 1,435</u>	<u>\$ 3,680</u>
<b>Supplemental disclosure:</b>		
Interest paid	\$ 903	\$ 607
Income taxes paid	116	41
Proceeds from stock subscription for Perma-Fix Medical S.A. held in escrow	67	—

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





**PERMA-FIX ENVIRONMENTAL SERVICES, INC.**  
**Notes to Consolidated Financial Statements**  
**December 31, 2015 and 2014**

---

**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 three reportable segments:

TREATMENT SEGMENT, 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 primarily through four uniquely licensed and permitted treatment and storage facilities; and
- research and development activities to identify, develop and implement innovative waste processing techniques for problematic waste streams.

SERVICES SEGMENT, which includes:

- On-site waste management services to commercial and governmental customers;
- Technical services, which include:
  - o professional radiological measurement and site survey of large government and commercial installations using advanced methods, technology and engineering;
  - o integrated Occupational Safety and Health services including industrial hygiene (“IH”) assessments; hazardous materials surveys, e.g., exposure monitoring; lead and asbestos management/abatement oversight; indoor air quality evaluations; health risk and exposure assessments; health & safety plan/program development, compliance auditing and training services; and Occupational Safety and Health Administration (“OSHA”) citation assistance;
  - o global technical services providing consulting, engineering, project management, waste management, environmental, and decontamination and decommissioning field, technical, and management personnel and services to commercial and government customers;
- Nuclear services, which include:
  - o technology-based services including engineering, decontamination and decommissioning (“D&D”), specialty services and construction, logistics, transportation, processing and disposal;
  - o remediation of nuclear licensed and federal facilities and the remediation cleanup of nuclear legacy sites. Such services capability includes: project investigation; radiological engineering; partial and total plant D&D; facility decontamination, dismantling, demolition, and planning; site restoration; site construction; logistics; transportation; and emergency response; and
- A company owned equipment calibration and maintenance laboratory that services, maintains, calibrates, and sources (i.e., rental) of health physics, IH and customized nuclear, environmental, and occupational safety and health (“NEOSH”) instrumentation.

On April 4, 2014, the Company completed the acquisition of a controlling interest in a Polish Company, a publicly traded shell company on the NewConnect (alternative share market run by the Warsaw Stock Exchange) in Poland and sold to the Polish shell all of the shares of Perma-Fix Medical Corporation, a Delaware corporation organized by the Company (incorporated in January 2014). Perma-Fix Medical Corporation’s only asset was a worldwide license granted by the Company to use, develop and market the new process and technology developed by the Company in the production of Technetium-99 (“Tc-99m”) for medical diagnostic applications. Tc-99m is the most widely used medical isotope in the world. Since the acquired shell company (now named Perma-Fix Medical S.A. or “PF Medical”) did not meet the definition of a business under Accounting Standards Codification (“ASC”) 805, “Business Combinations”, the transaction was accounted for as a capital transaction. PF Medical, the Company’s majority-owned Polish subsidiary (which we own approximately 60.5% as of December 31, 2015), continues to perform research and development (“R&D”) of its new medical isotope production technology. As of December 31, 2015, PF Medical has not generated any revenue as it is primarily in the R&D stage. In accordance with ASC 280, “Segment Reporting,” the Company has determined that the operations of PF Medical meet the definition of a reportable segment. Accordingly, all of the historical numbers presented in the consolidated financial statements have been recast to include the operations of PF Medical as a separate reportable segment (“Medical Segment”).

MEDICAL SEGMENT, which includes: R&D of a new medical isotope production technology by our majority-owned Polish subsidiary, PF Medical. The Company's Medical Segment has not generated any revenue as it continues to be primarily in the R&D stage. All costs incurred by the Medical Segment are reflected within R&D in the accompanying consolidated financial statements..

The Company's continuing operations consist of Diversified Scientific Services, Inc. ("DSSI"), East Tennessee Materials & Energy Corporation ("M&EC"), Perma-Fix of Florida, Inc. ("PFF"), Perma-Fix of Northwest Richland, Inc. ("PFNWR"), Schreiber, Yonley & Associates ("SYA" which was divested on July 29, 2014), Safety & Ecology Corporation ("SEC"), Perma-Fix Environmental Services UK Limited ("PF UK Limited"), Perma-Fix of Canada, Inc. ("PF Canada"), and PF Medical (a majority-owned Polish subsidiary).

The Company's discontinued operations (see Note 8) consist of all our subsidiaries included in our Industrial Segment which were divested in 2011 and prior, two previously closed locations, and our Perma-Fix of South Georgia, Inc. ("PFSG") facility which suffered a fire on August 14, 2013 and became non-operational and is closure status.

### **Financial Position and Liquidity**

The Company achieved improvement in financial position and liquidity in the twelve months ended December 31, 2015 as compared to the corresponding period of 2014. As of December 31, 2015, working capital was approximately \$3,091,000, an improvement of \$2,719,000 from a working capital of approximately \$372,000 as of December 31, 2014. The Company generated a loss from continuing operations of \$63,000 as compared to a loss from continuing operations of \$2,992,000 in 2014. The Company's financial results were negatively impacted by certain non-recurring charges incurred in 2015 within discontinued operations (see Note 8 – "Discontinued Operations and Divestitures").

The Company's cash flow requirements during 2015 were financed primarily by our operations, Credit Facility availability, and an equity raise by PF Medical. The Company is continually reviewing operating costs and is committed to further reducing operating costs to bring them in line with revenue levels, when needed.

The Company's cash flow requirements for 2016 will consist primarily of general working capital needs, scheduled principal payments on our debt obligations and capital leases, remediation projects and planned capital expenditures which we plan to fund from operations and our Credit Facility availability. The Company's majority-owned Polish subsidiary, PF Medical, continues to dedicate resources to the R&D of the new medical isotope production technology and to take the necessary steps for eventual submittal of this technology for U.S. Food and Drug Administration ("FDA") and other regulatory approval and commercialization of this technology. The need for capital may require PF Medical to obtain its own credit facility or through additional equity raises by PF Medical. If PF Medical obtains its own separate credit facility, such could result in restrictions on our rights as a majority stock owner. Any equity raises, if successful, would result in dilution of the Company's ownership of PF Medical.

---

## **NOTE 2**

### **SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

#### **Principles of Consolidation**

Our consolidated financial statements include our accounts, those of our wholly-owned subsidiaries, and our majority-owned Polish subsidiary, PF Medical, 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 the Company prepares financial statements in conformity with accounting standards generally accepted in the United States of America ("US GAAP"), the Company 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. Actual results could differ from those estimates. See Notes 8, 11, 12 and 13 for estimates of discontinued operations and environmental liabilities, closure costs, income taxes and contingencies for details on significant estimates.

## Restricted Cash

Restricted cash reflects \$35,000 held in escrow for our worker's compensation policy and proceeds held in escrow resulting from stock subscription agreements executed in connection with the sale of common stock by the Company's majority-owned Polish subsidiary, PF Medical (see Note 3 - "PF Medical" for further details).

## 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). 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 past successful experience in their collectability. 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, based on historical experience that allows us to calculate the total allowance 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 from senior management based on required approval thresholds.

The following table set forth the activity in the allowance for doubtful accounts for the years ended December 31, 2015 and 2014 (in thousands):

	Year Ended December 31,	
	2015	2014
Allowance for doubtful accounts-beginning of year	\$ 2,170	\$ 1,932
(Recovery of) provision for bad debt reserve	(433)	291
Write-off	(263)	(53)
Allowance for doubtful accounts-end of year	<u>\$ 1,474</u>	<u>\$ 2,170</u>

Retainage receivables represent amounts that are billed or billable to our customers, but are retained by the customer until completion of the project or as otherwise specified in the contract. Our retainage receivable balances are all current. Retainage receivables of approximately \$229,000 and \$11,000 as of December 31, 2015 and 2014, respectively, are included in the accounts receivable balance on the Company's Consolidated Balance Sheets in the respective periods.

## Unbilled Receivables

Unbilled receivables are generated by differences between invoicing timing and our proportional performance based methodology used for revenue recognition purposes. As major processing and contract completion phases are completed and the costs are incurred, we recognize the corresponding percentage of revenue. Within our Treatment Segment, we experience delays in processing invoices due to the complexity of the documentation that is required for invoicing, as well as the difference between completion of revenue recognition milestones and agreed upon invoicing terms, which results in unbilled receivables. The timing differences occur for several reasons: partially from delays in the final processing of all wastes associated with certain work orders and partially from delays for analytical testing that is required after we have processed waste but prior to our release of waste for disposal. The tasks relating to these delays usually take several months to complete. As we now have historical data to review the timing of these delays, we realize that certain issues, including, but not limited to, delays at our third party disposal site, can extend collection of some of these receivables greater than twelve months. However, our historical experience suggests that a significant portion of unbilled receivables are ultimately collectible with minimal concession on our part. We, therefore, segregate the unbilled receivables between current and long term.

Unbilled receivables within our Services Segment can result from: (1) revenue recognized by our Earned Value Management program (a program which integrates project scope, schedule, and cost to provide an objective measure of project progress) but invoice milestones have not yet been met and/or (2) contract claims and pending change orders, including Requests for Equitable Adjustments (“REAs”) when work has been performed and collection of revenue is reasonably assured.

### **Inventories**

Inventories consist of treatment chemicals, saleable 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 income tax purposes. Generally, asset lives range from ten to forty 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 amortized over the lesser of the term 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.

In accordance with ASC 360, “Property, Plant, and Equipment”, long-lived assets, such as property, plant and equipment, and purchased intangible assets subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. Assets to be disposed of are separately presented in the balance sheet and reported at the lower of the carrying amount or fair value less costs to sell, and are no longer depreciated. The assets and liabilities of a disposal group classified as held for sale would be presented separately in the appropriate asset and liability sections of the balance sheet.

Our depreciation expense totaled approximately \$3,246,000 and \$3,602,000 in 2015 and 2014, respectively.

### **Intangible Assets**

Intangible assets consist primarily of the recognized value of the permits required to operate our business. We continually monitor the propriety of the carrying amount of our permits to determine whether current events and circumstances warrant adjustments to the carrying value.

Indefinite-lived intangible assets are not amortized but are reviewed for impairment annually as of October 1, or when events or changes in the business environment indicate that the carrying value may be impaired. If the fair value of the asset is less than the carrying amount, we perform a quantitative test to determine the fair value. The impairment loss, if any, is measured as the excess of the carrying value of the asset over its fair value. Significant judgments are inherent in these analyses and include assumptions for, among other factors, forecasted revenue, gross margin, growth rate, operating income, timing of expected future cash flows, and the determination of appropriate long term discount rates.

We performed impairment testing of our permits related to our Treatment reporting unit as of October 1, 2015 and 2014 and determined there was no impairment.

Intangible assets that have definite useful lives are amortized using the straight-line method over the estimated useful lives (with the exception of customer relationships which are amortized using an accelerated method) and are excluded from our annual intangible asset valuation review as of October 1. The Company has one definite-lived permit which was excluded from our annual impairment review as noted above. The net carrying value of this one definite-lived permit as of December 31, 2015 and 2014 was approximately \$172,000 and \$227,000, respectively. Definite-lived intangible assets are also tested for impairment whenever events or changes in circumstances suggest impairment might exist.

#### **Research and Development (“R&D”)**

Operational innovation and technical know-how 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 and to develop new company service offerings. The Company conducts research internally and also through collaborations with other third parties. R&D costs consist primarily of employee salaries and benefits, laboratory costs, third party fees, and other related costs associated with the development and enhancement of new potential waste treatment processes and new technology and are charged to expense when incurred in accordance with ASC Topic 730, “Research and Development.” The Company’s R&D expenses included approximately \$2,114,000 and \$759,000 for the years ended December 31, 2015 and 2014, respectively, incurred by our Medical Segment in the R&D of its medical isotope production technology.

#### **Accrued Closure Costs and Asset Retirement Obligations (“ARO”)**

Accrued closure costs represent our estimated environmental liability to clean up our facilities as required by our permits, in the event of closure. ASC 410, “Asset Retirement and Environmental Obligations” requires that the discounted fair value of a liability for an ARO be recognized in the period in which it is incurred with the associated ARO capitalized as part of the carrying cost of the asset. The recognition of an ARO requires that management make numerous estimates, assumptions and judgments regarding such factors as estimated probabilities, timing of settlements, material and service costs, current technology, laws and regulations, and credit adjusted risk-free rate to be used. This estimate is inflated, using an inflation rate, to the expected time at which the closure will occur, and then discounted back, using a credit adjusted risk free rate, to the present value. ARO’s are included within buildings as part of property and equipment and are depreciated over the estimated useful life of the property. In periods subsequent to initial measurement of the ARO, the Company must recognize period-to-period changes in the liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate of undiscounted cash flow. Increases in the ARO liability due to passage of time impact net income as accretion expense, which is included in cost of goods sold. Changes in costs resulting from changes or expansion at the facilities require adjustment to the ARO liability calculated and are capitalized and charged as depreciation expense, in accordance with the Company’s depreciation policy.

#### **Income Taxes**

Income taxes are accounted for in accordance with ASC 740, “Income Taxes.” Under ASC 740, the provision for income taxes is comprised of taxes that are currently payable and deferred taxes that relate to the temporary differences between financial reporting carrying values and tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted income tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Any effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

ASC 740 requires that deferred income tax assets be reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred income tax assets will not be realized. The Company evaluates the realizability of its deferred income tax assets, primarily resulting from impairment loss and net operating loss carryforwards, and adjusts its valuation allowance, if necessary. Once the Company utilizes its net operating loss carryforwards or reverses the related valuation allowance it has recorded on these deferred tax assets, the Company would expect its provision for income tax expense in future periods to reflect an effective tax rate that will be significantly higher than past periods.

ASC 740 sets out a consistent framework for preparers to use to determine the appropriate recognition and measurement of uncertain tax positions. ASC 740 uses a two-step approach wherein a tax benefit is recognized if a position is more-likely-than-not to be sustained. The amount of the benefit is then measured to be the highest tax benefit which is greater than 50% likely to be realized. ASC 740 also sets out disclosure requirements to enhance transparency of an entity's tax reserves. The Company recognizes accrued interest and income tax penalties related to unrecognized tax benefits as a component of income tax expense.

The Company reassesses the validity of our conclusions regarding uncertain income tax positions on a quarterly basis to determine if facts or circumstances have arisen that might cause us to change our judgment regarding the likelihood of a tax position's sustainability under audit.

#### Foreign Currency

The Company's foreign subsidiaries include PF UK Limited, PF Canada and PF Medical. Assets and liabilities are translated to U.S. dollars at the exchange rate in effect at the balance sheet date and revenue and expenses at the average exchange rate for the period. Foreign currency translation adjustments for these subsidiaries are accumulated as a separate component of accumulated other comprehensive income (loss) in stockholders' equity. Gains and losses resulting from foreign currency transactions are recognized in the consolidated statements of operations.

#### Concentration Risk

The Company performed services relating to waste generated by the federal government, either directly as a prime contractor or indirectly for others as a subcontractor to the federal government, representing approximately \$36,105,000 or 57.9% of total revenue from continuing operations during 2015, as compared to \$34,780,000 or 60.9% of total revenue from continuing operations during 2014.

Revenue generated by one of the customers (non-government related and excluded from above) in the Services Segment accounted for 10% or more of the total revenues generated from continuing operations for the twelve months ended December 31, 2015:

Customer	Year	Total Revenue	% of Total Revenue
Prologis Teterboro, LLC	2015	\$ 10,686,000	17.1%

As our revenues are project/event based where the completion of one contract with a specific customer may be replaced by another contract with a different customer from year to year, we do not believe the loss of one specific customer from one year to the next will generally have a material adverse effect on our operations and financial condition.

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable. The Company maintains cash and cash equivalents with high quality financial institutions, which may exceed Federal Deposit Insurance Corporation ("FDIC") insured amounts from time to time. Concentration of credit risk with respect to accounts receivable is limited due to the Company's large number of customers and their dispersion throughout the United States as well as with the significant amount of work that we perform for the federal government as discussed above.

The Company has one customer whose net outstanding receivable balance represented 16.2% and 13.8% of the Company's total consolidated net accounts receivable at December 31, 2015 and 2014, respectively.

### **Gross Receipts Taxes and Other Charges**

ASC 605-45, "Revenue Recognition – Principal Agent Consideration" provides guidance regarding the accounting and financial statement presentation for certain taxes assessed by a governmental authority. These taxes and surcharges include, among others, universal service fund charges, sales, use, waste, and some excise taxes. In determining whether to include such taxes in its revenue and expenses, the Company assesses, among other things, whether it is the primary obligor or principal taxpayer for the taxes assessed in each jurisdiction where the Company does business. As the Company is merely a collection agent for the government authority in certain of our facilities, the Company records the taxes on a net bases and excludes them from revenue and cost of services.

### **Revenue Recognition**

*Treatment Segment revenues.* The processing of mixed waste is complex and may take several months or more to complete; as such, the Treatment Segment recognizes revenues using a proportional performance based methodology with its measure of progress towards completion determined based on output measures consisting of milestones achieved and completed. The Treatment Segment has waste tracking capabilities, which it continues to enhance, to allow for better matching of 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 sometimes they are completed concurrently. As major processing phases are completed and the costs are incurred, the Treatment Segment recognizes the corresponding percentage of revenue utilizing a proportional performance model. The Treatment Segment experiences delays in processing invoices due to the complexity of the documentation that is required for invoicing, as well as the difference between completion of revenue recognition milestones and agreed upon invoicing terms, which results in unbilled receivables. The timing differences occur for several reasons, partially from delays in the final processing of all wastes associated with certain work orders and partially from delays for analytical testing that is required after the waste is processed waste but prior to our release of the waste for disposal. As the waste moves through these processing phases and revenues are recognized, the correlating costs are expensed as incurred. Although the Treatment Segment uses its best estimates and all available information to accurately determine these disposal expenses, the risk does exist that these estimates could prove to be inadequate in the event the waste requires retreatment. Furthermore, should the waste be returned to the customer, the related receivables could be uncollectible; however, historical experience has not indicated this to be a material uncertainty.

*Services Segment revenues.* Revenue includes services performed under time and material, fixed price, and cost-reimbursement contracts. Revenues and costs associated with fixed price contracts are recognized using the percentage of completion (efforts expended) method. The Services Segment estimates its percentage of completion based on attainment of project milestones. Revenues and costs associated with time and material contracts are recognized as revenue when earned and costs are incurred.

Under cost reimbursement contracts, the Services Segment is reimbursed for costs incurred plus a certain percentage markup for indirect costs, in accordance with contract provisions. Costs incurred in excess of contract funding may be renegotiated for reimbursement. The Services Segment also earns a fee based on the approved costs to complete the contract. The Services Segment recognizes this fee using the proportion of costs incurred to total estimated contract costs.

Contract costs include all direct labor, material and other non-labor costs and those indirect costs related to contract support, such as depreciation, fringe benefits, overhead labor, supplies, tools, repairs and equipment rental. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Changes in job performance, job conditions and estimated profitability, including those arising from contract penalty provisions and final contract settlements, may result in revisions to costs and income and are recognized in the period in which the revisions are determined.



### **Self-Insurance**

Effective May 2015, the Company moved to a fully-insured group health plan. Previously the Company was self-insured for a significant portion of our group health. Under the self-insured group health plan, the Company estimated expected losses based on statistical analyses of historical industry data, as well as our own estimates based on the Company's actual historical data to determine required self-insurance reserves. The assumptions were closely reviewed, monitored, and adjusted when warranted by changing circumstances. The estimated accruals for these liabilities could have been affected if actual experience related to the number of claims and cost per claim differed from these assumptions and historical trends. No self-insurance reserves were required as of December 31, 2015 as the Company moved to a fully-insured group health plan. Self-insurance reserve was approximately \$397,000 as of December 31, 2014 and was included in Accrued expenses in the accompanying consolidated balance sheets. The total amount expensed for self-insurance during 2015 and 2014 were approximately \$868,000 and \$2,697,000, respectively, for our continuing operations. Monthly group health insurance premium under the fully-insured group health plan is approximately \$220,000.

### **Stock-Based Compensation**

The Company accounts for stock-based compensation in accordance with ASC 718, "Compensation – Stock Compensation". ASC 718 requires all stock-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. The Company uses the Black-Scholes option-pricing model to determine the fair-value of stock-based awards which requires subjective assumptions. Assumptions used to estimate the fair value of stock options granted include the exercise price of the award, the expected term, the expected volatility of the Company's stock over the option's expected term, the risk-free interest rate over the option's expected term, and the expected annual dividend yield.

The Company recognizes stock-based compensation expense using a straight-line amortization method over the requisite service period, which is the vesting period of the stock option grant. As ASC 718 requires that stock-based compensation expense be based on options that are ultimately expected to vest, our stock-based compensation expense is reduced by an estimated forfeiture rate. Our estimated forfeiture rate is generally based on historical trends of actual forfeitures. Forfeiture rates are evaluated, and revised as necessary.

### **Comprehensive Income**

The components of comprehensive income (loss) are net income (loss) and the effects of foreign currency translation adjustments.

### **Earning (Loss) Per Share**

Basic earning (loss) per share is calculated based on the weighted-average number of outstanding common shares during the applicable period. Diluted earning (loss) per share is based on the weighted-average number of outstanding common shares plus the weighted-average number of potential outstanding common shares. In periods where they are anti-dilutive, such amounts are excluded from the calculations of dilutive earnings per share. Earning (loss) per share is computed separately for each period presented.

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

Certain assets and liabilities are required to be recorded at fair value on a recurring basis, while other assets and liabilities are recorded at fair value on a nonrecurring basis. Fair value is determined based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. The three-tier value hierarchy, which prioritizes the inputs used in the valuation methodologies, is:

**Level 1—Valuations based on quoted prices for identical assets and liabilities in active markets.**

**Level 2—**Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

**Level 3—**Valuations based on unobservable inputs reflecting the Company's own assumptions, consistent with reasonably available assumptions made by other market participants.

Financial instruments include cash and restricted cash (Level 1), accounts receivable, accounts payable, and debt obligations (Level 3). Credit is extended to customers based on an evaluation of a customer's financial condition and, generally, collateral is not required. At December 31, 2015 and December 31, 2014, the fair value of the Company's financial instruments approximated their carrying values. The fair value of the Company's Revolving Credit Facility approximates its carrying value due to the variable interest rate. The carrying value of our subsidiary's preferred stock is not significantly different than its fair value.

#### **Recently Adopted Accounting Standards**

In June 2014, the Financial Accounting Standards Board ("FASB") issued ASU 2014-12, "Compensation Stock – Compensation (Topic 718)." ASU 2014-12 applies to all reporting entities that grant their employees share-based payments in which the terms of the award provide that a performance target that affects vesting could be achieved after the requisite service period. It requires that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition and follows existing accounting guidance for the treatment of performance conditions. The standard is effective for annual periods and interim periods within those annual periods beginning after December 15, 2015, with early adoption permitted. The adoption of this ASU in the fourth quarter of 2015 did not have an impact on the Company's results of operations, cash flows or financial position.

In February 2015, the FASB issued ASU No. 2015-02, "Consolidation (Topic 810): Amendments to the Consolidation Analysis." ASU 2015-02 changes the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. ASU 2015-02 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2015. Early adoption is permitted, including adoption in an interim period. The adoption of this ASU in the fourth quarter of 2015 did not have an impact on the Company's results of operations, cash flows or financial position.

In November 2015, the FASB issued ASU 2015-17, "Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes." ASU 2015-17 simplifies the presentation of deferred taxes by requiring deferred tax assets and liabilities be classified as noncurrent on the balance sheet. The provisions of this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption is permitted. A reporting entity should apply the amendment prospectively or retrospectively. The Company adopted ASU 2015-17 retrospectively in the fourth quarter of 2015. Balances as of December 31, 2014 were restated to conform with 2015 classification, resulting in a decrease in current deferred tax assets of \$385,000 and a decrease in long-term deferred tax liabilities of \$385,000. Other than these reclassifications, the adoption of ASU 2015-17 had no impact on the Company's results of operations and cash flows.

#### **Recently Issued Accounting Standards – Not Yet Adopted**

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)." ASU 2014-09 provides a single, comprehensive revenue recognition model for all contracts with customers. The revenue guidance contains principles that an entity will apply to determine the measurement of revenue and timing of when it is recognized. The underlying principle is that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. In July 2015, the FASB deferred the effective date to annual reporting periods beginning after December 15, 2017 (including interim reporting periods within those periods). Early adoption is permitted to the original effective date of December 15, 2016 (including interim reporting periods within those periods). The ASU may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized as of the date of initial application. The Company is still evaluating the potential impact of adopting this guidance on our financial statements.

In August 2014, the FASB issued ASU No. 2014-15, "Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern." ASU 2014-15 requires management to assess an entity's ability to continue as a going concern, and to provide related footnote disclosure in certain circumstances. The new standard will be effective for all entities in the first annual period ending after December 15, 2016. The Company is still evaluating the potential impact of adopting this guidance on our financial statements.

In July 2015, the FASB issued ASU 2015-11, "Inventory (Topic 330): Simplifying the Measurement of Inventory." ASU 2015-11 requires that inventory within the scope of this update be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The amendments in this update do not apply to inventory that is measured using last-in, first-out (LIFO) or the retail inventory method. The amendments apply to all other inventory, which includes inventory that is measured using first-in, first-out (FIFO) or average cost. For all entities, the guidance is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2016. Early adoption is permitted. The Company is still evaluating the potential impact of adopting this guidance on our financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)". Under ASU 2016-02, an entity will be required to recognize right-of-use assets and lease liabilities on its balance sheet and disclose key information about leasing arrangements. ASU 2016-02 offers specific accounting guidance for a lessee, a lessor and sale and leaseback transactions. Lessees and lessors are required to disclose qualitative and quantitative information about leasing arrangements to enable a user of the financial statements to assess the amount, timing and uncertainty of cash flows arising from leases. For public companies, ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period, and requires a modified retrospective adoption, with early adoption permitted. The Company is still evaluating the potential impact of adopting this guidance on our financial statements.

---

### **NOTE 3**

#### **PF Medical**

The Company's subsidiaries include PF Medical, a majority-owned Polish subsidiary acquired in April 2014. PF Medical continues to conduct R&D of its new medical isotope production technology which it plans for eventual commercialization.

During August 2014, PF Medical executed stock subscription agreements totaling approximately \$2,357,000 for 250,000 shares of its Series E Common Stock to non-U.S. persons in an offshore private placement. In connection with this transaction, PF Medical has received approximately \$1,478,000 and \$67,000 in proceeds (before deduction for commissions and legal expenses relating to this offering of approximately \$242,000) in 2014 and 2015, respectively, for the 250,000 shares. As of December 31, 2015, the \$67,000 is being held in an escrow account and is expected to be released from the escrow account during the first quarter of 2016 for payment of certain expenses related to the medical isotope project. The Company has recorded the amount held in escrow as restricted cash on the accompanying Consolidated Balance Sheets as of December 31, 2015. PF Medical has elected to transfer all the rights, title, and interests of the remaining approximately 86,585 unpaid shares back to PF Medical. The unpaid shares to be transferred back to PF Medical will require the termination of the original stock subscription agreements for the 86,585 shares.

On July 24, 2015, PF Medical and Digirad Corporation, a Delaware corporation ("Digirad"), Nasdaq: DRAD, entered into a multi-year Tc-99m Supplier Agreement (the "Supplier Agreement") and a Series F Stock Subscription Agreement (the "Subscription Agreement"), (together, the "Digirad Agreements"). The Supplier Agreement became effective upon the completion of the Subscription Agreement. Pursuant to the terms of the Digirad Agreements, Digirad purchased, in a private placement, 71,429 shares of PF Medical's restricted Series F Stock for an aggregate purchase price of \$1,000,000, which was received on July 24, 2015. As of December 31, 2015, legal expenses incurred for this offering totaled approximately \$29,000. The 71,429 share investment made by Digirad constituted approximately 5.4% of the outstanding common shares of PF Medical. As a result of this transaction, the Company's ownership interest in PF Medical diluted from approximately 64.0% to 60.5%. The Supplier Agreement provides, among other things, that upon PF Medical's commercialization of certain Tc99m generators, Digirad will purchase agreed upon quantities of Tc-99m for its nuclear imaging operations either directly or in conjunction with its preferred nuclear pharmacy supplier and PF Medical will supply Digirad, or its preferred nuclear pharmacy supplier, with Tc-99m at a preferred pricing, subject to certain conditions.

**NOTE 4**  
**PERMIT AND OTHER INTANGIBLE ASSETS**

The following table summarizes changes in the carrying amount of permits. No permit exists at our Services Segment.

Permit (amount in thousands)	Treatment
Balance as of December 31, 2013	\$ 16,744
PCB permit amortized <sup>(1)</sup>	(55)
Permit in progress	20
Balance as of December 31, 2014	16,709
PCB permit amortized <sup>(1)</sup>	(55)
Permit in progress	107
Balance as of December 31, 2015	\$ 16,761

<sup>(1)</sup> Amortization for the one definite-lived permit capitalized in 2009. This permit is being amortized over a ten year period in accordance with its estimated useful life. Net carrying value of this permit was approximately \$172,000 and \$227,000 as of December 31, 2015 and 2014, respectively.

The following table summarizes information relating to the Company's definite-lived intangible assets:

	Useful Lives (Years)	December 31, 2015			December 31, 2014		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Intangibles (amount in thousands)							
Patent	8 - 18	\$ 539	\$ (203)	\$ 336	\$ 512	\$ (168)	\$ 344
Software	3	395	(364)	31	375	(319)	56
Customer relationships	12	3,370	(1,671)	1,699	3,370	(1,335)	2,035
Permit	10	545	(373)	172	545	(318)	227
Total		\$ 4,849	\$ (2,611)	\$ 2,238	\$ 4,802	\$ (2,140)	\$ 2,662

The intangible assets are amortized on a straight-line basis over their useful lives with the exception of customer relationships which are being amortized using an accelerated method.

The following table summarizes the expected amortization over the next five years for our definite-lived intangible assets (including the one definite-lived permit):

Year	Amount (In thousands)
2016	\$ 412
2017	366
2018	335
2019	256
2020	221
	\$ 1,590

Amortization expense recorded for definite-lived intangible assets for the Company was approximately \$471,000 and \$638,000, for the years ended December 31, 2015 and 2014, respectively.

As of December 31, 2015 and 2014, the Company has no goodwill. In 2014, the Company recorded an impairment charge of \$380,000 in connection with the sale of our SYA subsidiary on July 29, 2014, in accordance with ASC Topic 350 "Intangible – Goodwill and Other" ("ASC 350"). The impairment charges recorded were non-cash in nature and did not affect our liquidity or cash flows from operating activities. Additionally, the goodwill impairment had no effect on our borrowing availability or covenants under our credit facility agreement.

---

**NOTE 5****CAPITAL STOCK, STOCK PLANS, WARRANTS, AND STOCK BASED COMPENSATION****Stock Option Plans**

The Company adopted the 2003 Outside Directors Stock Plan (the “2003 Plan”), which was approved by our stockholders at the Annual Meeting of Stockholders on July 29, 2003. Options granted under the 2003 Plan generally have a vesting period of six months from the date of grant and a term of 10 years, with an exercise price equal to the closing trade price on the date prior to grant date. The 2003 Plan also provides for the issuance to each outside director a number of shares of Common Stock in lieu of 65% or 100% (based on option elected by each director) of the fee payable to the eligible director for services rendered as a member of the Board of Directors (“Board”). The number of shares issued is determined at 75% of the market value as defined in the plan. The 2003 Plan, as amended, also provides for the grant of an option to purchase up to 6,000 shares of Common Stock for each outside director upon initial election to the Board, and the grant of an option to purchase 2,400 shares of Common Stock upon each re-election. The number of shares of the Company’s Common Stock authorized under the 2003 Plan is 800,000, pursuant to the 2003 Plan, as amended.

Effective July 28, 2004, the Company adopted the 2004 Stock Option Plan ( the “2004 Plan”), which was approved by our stockholders at the Annual Meeting of Stockholders on such date. The 2004 Plan provided for the grants of options to selected officers and employees, including any employee who was also a member of the Board of the Company. A maximum of 400,000 shares of our Common Stock were authorized for issuance under this plan in the form of either Incentive Stock Options (“ISO”) or Non-Qualified Stock Options (“NQSOs”). The options granted under the 2004 Plan were 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. On July 28, 2014, the 2004 Plan expired. The last options issued under the 2004 Plan prior to the expiration date of the Plan expired on February 26, 2015.

On April 28, 2010, the Company adopted the 2010 Stock Option Plan (“2010 Plan”), which was approved by our stockholders at the Company’s Annual Meeting of Stockholders on September 29, 2010. The 2010 Plan authorizes an aggregate grant of 200,000 NQSOs and ISOs to officers and employees of the Company for the purchase of up to 200,000 shares of the Company’s Common Stock. The term of each stock option granted will be fixed by the Compensation and Stock Option Committee (“Compensation Committee”), but no stock options will be exercisable more than ten years after the grant date, or in the case of an incentive stock option granted to a 10% stockholder, five years after the grant date. The exercise price of any ISO granted under the 2010 Plan to an individual who is not a 10% stockholder at the time of the grant will not be less than the fair market value of the shares at the time of the grant, and the exercise price of any incentive stock option granted to a 10% stockholder shall not be less than 110% of the fair market value at the time of grant. The exercise price of any NQSOs granted under the plan will not be less than the fair market value of the shares at the time of grant.

No employees exercised options during 2015 and 2014. During 2015, the Company issued a total of 3,423 shares of our Common Stock upon exercise of 3,423 NQSOs by an outside director from the 2003 Plan, at an exercise price of \$2.79 per share which resulted in total proceeds of approximately \$9,600. During 2014, the Company issued a total of 2,577 shares of our Common Stock upon exercise of 2,577 NQSOs by an outside director from the 2003 Plan, at exercise price of \$2.79 per share which resulted in total proceeds of approximately \$7,200.

The summary of the Company's total Plans as of December 31, 2015 and 2014, and changes during the period then ended are presented as follows:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (2)
Options outstanding January 1, 2015	239,023	\$ 7.81		
Granted	12,000	4.19		
Exercised	(3,423)	2.79		\$ 4,298
Forfeited/Expired	(29,400)	8.13		
Options outstanding End of Period (1)	218,200	\$ 7.65	4.8	\$ 14,676
Options Exercisable at December 31, 2015(1)	169,533	\$ 8.47	4.5	\$ 14,676
Options Vested and expected to be vested at December 31, 2015	212,333	\$ 7.72	4.8	\$ 14,676

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (2)
Options outstanding January 1, 2014	362,800	\$ 9.53		
Granted	71,800	4.70		
Exercised	(2,577)	2.79		\$ 3,705
Forfeited/Expired	(193,000)	9.95		
Options outstanding End of Period (1)	239,023	\$ 7.81	4.9	\$ 41,957
Options Exercisable at December 31, 2014(1)	167,223	\$ 9.15	4.2	\$ 31,037
Options Vested and expected to be vested at December 31, 2014	230,223	\$ 7.92	4.9	\$ 41,957

(1) Options with exercise prices ranging from \$2.79 to \$14.75

(2) The intrinsic value of a stock option is the amount by which the market value of the underlying stock exceeds the exercise price of the option.

The summary of the Company's nonvested options as of December 31, 2015 and changes during the period then ended are presented as follows:

	Shares	Weighted Average Grant-Date Fair Value
Non-vested options January 1, 2015	71,800	\$ 2.85
Granted	12,000	2.84
Vested	(35,133)	2.81
Non-vested options at December 31, 2015	48,667	\$ 2.87

#### Capital Stock Issued for Services

The Company issued a total of 71,324 and 67,335 shares of our Common Stock in 2015 and 2014, respectively, under our 2003 Plan to our outside directors as compensation for serving on our Board. As a member of the Board, each director elects to receive either 65% or 100% of the director's fee in shares of our Common Stock. The number of shares received is calculated based on 75% of the fair market value of our Common Stock determined on the business day immediately preceding the date that the quarterly fee is due. The balance of each director's fee, if any, is payable in cash. The Company recorded approximately \$269,000 and \$273,000 in compensation expense for the twelve months ended December 31, 2015 and 2014, respectively, for the portion of director fees earned in the Company's Common Stock.

**Preferred Share Rights Plan**

In May 2008, the Company adopted a preferred share rights plan (the “Rights Plan”), designed to ensure that all of our stockholders receive fair and equal treatment in the event of a proposed takeover or abusive tender offer.

In general, under the terms of the Rights Plan, subject to certain limited exceptions, if a person or group acquires 20% or more of our Common Stock or a tender offer or exchange offer for 20% or more of our Common Stock is announced or commenced, our other stockholders may receive upon exercise of the rights (the “Rights”) issued under the Rights Plan the number of shares our Common Stock or of one-one hundredths of a share of our Series A Junior Participating Preferred Stock, par value \$.001 per share, having a value equal to two times the purchase price of the Right. In addition, if the Company is acquired in a merger or other business combination transaction in which we are not the survivor or more than 50% of our assets or earning power is sold or transferred, then each holder of a Right (other than the acquirer) will thereafter have the right to receive, upon exercise, common stock of the acquiring company having a value equal to two times the purchase price of the Right. The initial purchase price of each Right was \$13.00, subject to adjustment as defined in plan.

The Rights will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by our board of directors. The Rights may be redeemed by us at \$0.001 per Right at any time before any person or group acquires 20% or more of our outstanding Common Stock. The Rights expire on May 2, 2018.

**Warrants and Capital Stock Issuance for Debt**

As of December 31, 2015, the Company has two Warrants outstanding which provide for the purchase of up to an aggregate of 70,000 shares of the Company’s Common Stock at \$2.23 per share. The two Warrants were issued on August 2, 2013, as consideration for a \$3,000,000 loan received by the Company from Messrs. William N. Lampson and Robert L. Ferguson (the “Lenders”). Each Warrant provides for the Lender to purchase up to 35,000 shares of the Company’s Common Stock at an exercise price of \$2.23 per share. The Warrants are exercisable six months from August 2, 2013 and expire on August 2, 2016. These Warrants are still outstanding at December 31, 2015. The Company also issued 90,000 shares of the Company’s Common Stock to the Lenders. See Note 9 – “Long-Term Debt – Promissory Note and Installment Agreement” for further information and accounting treatment of the Warrants and Common Stock.

**Shares Reserved**

At December 31, 2015, the Company has reserved approximately 288,200 shares of Common Stock for future issuance under all of the option and warrant arrangements.

**Stock Based Compensation**

As discussed above, the Company has certain stock option plans which it awards NQSOs and ISOs to employees, officers, and outside directors. Stock options granted to employees generally have a six year contractual term with one-third yearly vesting over a three year period. Stock options granted to outside directors generally have a ten year contractual term with vesting period of six months.

On September 17, 2015, the Company granted an aggregate of 12,000 NQSOs from the Company’s 2003 Plan to five of the seven re-elected directors at our Annual Meeting of Stockholders held on September 17, 2015. Two of the directors are not eligible to receive options under the 2003 Plan as they are employees of the Company or its subsidiaries. Dr. Centofanti is the Company’s Chief Executive Officer (“CEO”) and Mr. John Climaco is an Executive Vice President (“EVP”) of PF Medical (effective June 2, 2015), the Company’s majority-owned Polish subsidiary. The NQSOs granted were for a contractual term of ten years with a vesting period of six months. The exercise price of the NQSOs was \$4.19 per share, which was equal to the Company’s closing stock price the day preceding the grant date, pursuant to the 2003 Plan.

The Company estimates fair value of stock options using the Black-Scholes valuation model. Assumptions used to estimate the fair value of stock options granted include the exercise price of the award, the expected term, the expected volatility of the Company's stock over the option's expected term, the risk-free interest rate over the option's expected term, and the expected annual dividend yield. The fair value of the options granted during 2015 and 2014 and the related assumptions used in the Black-Scholes option model used to value the options granted were as follows (No options were granted to employees during 2015):

	Outside Director Stock Options Granted	
	For Year Ended	
	2015	2014
Weighted-average fair value per share	\$ 2.84	\$ 2.73
Risk -free interest rate <sup>(1)</sup>	2.21%	2.63%
Expected volatility of stock <sup>(2)</sup>	57.98%	59.59%
Dividend yield	None	None
Expected option life <sup>(3)</sup> (in years)	10.0	10.0

	Employee Stock Option Granted For Year Ended 2014
Weighted-average fair value per share	\$ 2.88
Risk -free interest rate <sup>(1)</sup>	1.91%
Expected volatility of stock <sup>(2)</sup>	61.84%
Dividend yield	None
Expected option life <sup>(3)</sup> (in years)	6.0

(1) The risk-free interest rate is based on the U.S. Treasury yield in effect at the grant date over the expected term of the option.

(2) The expected volatility is based on historical volatility from our traded Common Stock over the expected term of the option.

(3) The expected option life is based on historical exercises and post-vesting data.

The following table summarizes stock-based compensation recognized for the fiscal year 2015 and 2014.

	Year Ended	
	2015	2014
Employee Stock Options	\$ 53,000	\$ (14,000)
Director Stock Options	39,000	48,000
Total	\$ 92,000	\$ 34,000

The Company recognizes stock-based compensation expense using a straight-line amortization method over the requisite service period, which is the vesting period of the stock option grant. ASC 718, "Compensation – Stock Compensation" requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The Company has generally estimated forfeiture rates based on historical trends of actual forfeitures. When actual forfeitures vary from our estimates, the Company recognizes the difference in compensation expense in the period the actual forfeitures occur or when options vest. The total stock-based compensation expense for the twelve months ended December 31, 2014 included a reduction in expense of approximately \$54,000 resulting from the forfeiture of options by Mr. Jim Blankenhorn, our previous Chief Operating Officer ("COO"), who voluntarily resigned from the Company effective March 28, 2014. The COO was granted an option from the Company's 2010 Plan on July 25, 2011, to purchase up to 60,000 shares of the Company's Common Stock at \$7.85 per share. The options had a six year contractual term with one-third yearly vesting over a three year period.

As of December 31, 2015, the Company has approximately \$86,000 of total unrecognized compensation cost related to unvested options, of which \$67,000 is expected to be recognized in 2016, with the remaining \$19,000 in 2017.



---

**NOTE 6****INCOME (LOSS) PER SHARE**

The following table reconciles the income (loss) and average share amounts used to compute both basic and diluted income (loss) per share:

(Amounts in Thousands, Except for Per Share Amounts)	Twelve Months Ended December 31, (Unaudited)	
	2015	2014
Net income (loss) attributable to Perma-Fix Environmental Services, Inc., common stockholders:		
Income (loss) from continuing operations attributable to Perma-Fix Environmental Services, Inc. common stockholders	\$ 814	\$ (2,913)
Income (loss) from discontinuing operations attributable to Perma-Fix Environmental Services, Inc. common stockholders	(1,864)	1,688
Net loss attributable to Perma-Fix Environmental Services, Inc. common stockholders	<u>\$ (1,050)</u>	<u>\$ (1,225)</u>
Basic loss per share attributable to Perma-Fix Environmental Services, Inc. common stockholders	<u>\$ (.09)</u>	<u>\$ (.11)</u>
Diluted loss per share attributable to Perma-Fix Environmental Services, Inc. common stockholders	<u>\$ (.09)</u>	<u>\$ (.11)</u>
Weighted average shares outstanding:		
Basic weighted average shares outstanding	11,516	11,443
Add: dilutive effect of stock options	6	—
Add: dilutive effect of warrants	30	—
Diluted weighted average shares outstanding	<u>11,552</u>	<u>11,443</u>
Potential shares excluded from above weighted average share calculations due to their anti-dilutive effect include:		
Stock options	183	201

---

**NOTE 7****PREFERRED STOCK ISSUANCE AND CONVERSION****Series B Preferred Stock**

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 the former stockholders of M&EC at any time for the per share price of \$1.00. 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 \$867,000 since July 2002, of which \$64,000 was accrued in each of the years ended December 31, 2003 to 2015 and is included within Other long term liabilities of the Consolidated Balance Sheet.

---

**NOTE 8****DISCONTINUED OPERATIONS AND DIVESTITURES****Discontinued Operations**

The Company's discontinued operations consist of all our subsidiaries included in our Industrial Segment: (1) subsidiaries divested in 2011 and prior, (2) two previously closed locations, and (3) our PFSG facility which suffered a fire and explosion on August 14, 2013 and is currently undergoing regulatory closure. The Company carried general liability, pollution, property and business interruption, and workers compensation insurance with a maximum deductible of approximately \$300,000. In June 2014, the Company entered into a settlement agreement and release with one of its insurance carriers, resulting in receipt of approximately \$3,850,000 in insurance settlement proceeds, which was used for working capital purposes. The Company subsequently recorded a gain on insurance settlement of approximately \$3,842,000 in connection with the fire and explosion at our PFSG facility. In 2014, the Company also recorded approximately \$723,000 of asset impairment charges as result of the Company's decision not to rebuild PFSG in accordance with ASC 360.

On May 11, 2015, PFSG received a Notice of Violation and proposed Consent Order (“CO”) from the Georgia Department of Natural Resources Environmental Protection Division (“GAEPD”), which alleged certain violations (resulting from the fire and explosion in 2013 and prior inspections of the facility) of Georgia hazardous waste management regulations and PFSG hazardous waste management permit. The proposed CO also established the process for formally closing the PFSG hazardous waste management facilities, should PFSG elect to do so; and proposed the assessment of a civil penalty. The final terms of the CO, including a \$201,200 civil penalty, were executed on July 1, 2015. The civil penalty was paid by the Company and recorded during the second quarter of 2015. On August 28, 2015, the Company notified GAEPD its intent to close the PFSG facility; and on September 29, 2015, the Company submitted a draft Post-Closure Plan for review and approval by the GAEPD.

On June 4, 2015, the Perma-Fix of Michigan, Inc. (“PFMI”) entered into a letter of intent (“LOI”) to sell the property PFMI formerly operated for a sale price of approximately \$450,000. PFMI is a closed location. As required by ASC 360, the Company concluded that asset impairment existed for PFMI and recorded approximately \$150,000 in an asset impairment charge in the second quarter of 2015. On September 29, 2015, PFMI entered into a Purchase Agreement (the “Agreement”) for the sale of the property for a sales price of \$450,000, which is subject to completion of a due diligence by the buyer during the first quarter of 2016, as amended. Upon execution of the Agreement, PFMI received a \$20,000 deposit which is being held in an escrow account (recorded as restricted cash within discontinued operations) (see Note 17 - “Subsequent Event – PFMI” for further information of this Agreement).

During the fourth quarter of 2015, an arbitrator ordered the Company to pay approximately \$1,278,000 to a contractor hired by the Company to perform emergency response services at our PFSG subsidiary resulting from the fire and explosion in 2013. As discussed above, PFSG is currently undergoing regulatory closure, subject to state and federal environmental permitting requirements. In arbitration, the contractor had sought payment of unpaid invoices totaling approximately \$1,400,000 (which included interest of approximately \$600,000) and contract penalties totaling approximately \$800,000. In addition, the contractor claimed approximately \$500,000 in attorney’s fees. On December 7, 2015, the Company was notified of the following Arbitrator’s award totaling approximately \$1,278,000, which was paid on December 31, 2015: (a) \$747,000 for unpaid invoices; (b) interest of \$400,000; (c) attorney fees of \$125,000; and (d) \$6,000 in certain administrative fees in connection with the arbitration. The Company had previously accrued approximately \$871,000 for this matter. The remaining charge of approximately \$407,000 was recorded by the Company in 2015 (in the fourth quarter of 2015, with \$400,000 recorded as interest expense).

The following table summarizes the results of discontinued operations for the years ended December 31, 2015 and 2014.

Amount in Thousands	For The Year Ended December 31,	
	2015	2014
Interest expense	\$ (401)	\$ (6)
Operating (loss) income from discontinued operations	(1,915)	(2,108)
Gain on insurance settlement of discontinued operations	—	3,842
Income tax (benefit) expense	(51)	46
(Loss) income from discontinued operations	(1,864)	1,688

The following table presents the major class of assets of discontinued operations that are classified as held for sale as of December 31, 2015 and December 31, 2014. The held for sale assets may differ at the closing of a sale transaction from the reported balances as of December 31, 2015.

(Amounts in Thousands)	December 31, 2015	December 31, 2014
Property	\$ 450	\$ 600
<b>Total assets held for sale</b>	<b>\$ 450</b>	<b>\$ 600</b>

The following table presents the major classes of assets and liabilities of discontinued operations that are not held for sale as of December 31, 2015 and December 31, 2014:

(Amounts in Thousands)	December 31, 2015	December 31, 2014
<b>Current assets</b>		
Other assets	\$ 34	20
Total current assets	34	20
<b>Long-term assets</b>		
Property, plant and equipment, net <sup>(1)</sup>	81	81
Total long-term assets	81	81
<b>Total assets not held for sale</b>	<b>\$ 115</b>	<b>\$ 101</b>
<b>Current liabilities</b>		
Accounts payable	\$ 85	\$ 947
Accrued expenses and other liabilities	437	462
Environmental liabilities	9	728
Total current liabilities	531	2,137
<b>Long-term liabilities</b>		
Closure liabilities	173	302
Environmental liabilities	891	288
Total long-term liabilities	1,064	590
<b>Total liabilities not held for sale</b>	<b>\$ 1,595</b>	<b>\$ 2,727</b>

(1) net of accumulated depreciation of \$10,000 for each period presented.

#### Environmental Liabilities

The Company has three remediation projects, which are currently in progress at our Perma-Fix of Dayton, Inc. (“PFD”), Perma-Fix of Memphis, Inc. (“PFM” – closed location), and PFSG (in closure status) subsidiaries. The Company divested PFD in 2008; however, the environmental liability of PFD was retained by the Company upon the divestiture of PFD. These remediation projects principally entail the removal/remediation of contaminated soil and, in most cases, the remediation of surrounding ground water. Remediation activities at our Perma-Fix of Michigan, Inc. subsidiary (“PFMI” – closed location) in Brownstown, Michigan, were completed in 2015. The remediation activities are closely reviewed and monitored by the applicable state regulators.

At December 31, 2015, we had total accrued environmental remediation liabilities of \$900,000, of which \$9,000 is recorded as a current liability, which reflects a decrease of \$116,000 from the December 31, 2014 balance of \$1,016,000. The net decrease of \$116,000 represents payments on remediation projects at PFSG and PFM totaling approximately \$78,000 and a decrease in reserve of \$38,000 due to completion of remediation activities at our PFMI location. The December 31, 2015 current and long-term accrued environmental liability at December 31, 2015 is summarized as follows (in thousands).

	Current Accrual	Long-term Accrual	Total
PFD	\$ 9	\$ 60	\$ 69
PFM	—	15	15
PFSG	—	816	816
Total liability	<b>\$ 9</b>	<b>\$ 891</b>	<b>\$ 900</b>

## Divestiture of SYA

On July 29, 2014, the Company completed the sale of its wholly-owned subsidiary, SYA. SYA was a professional engineering and environmental consulting services company and was included in the Company's Services Segment. In accordance with ASU 2014-08, "Presentation of Financial Statements (Topic 205) and Property, Plant, and Equipment (Topic 360): Reporting Discontinued Operations and Disclosure of Disposals of Components of an Entity", the divestiture of SYA was reported in continuing operations for all periods presented. The purchaser of SYA paid approximately \$1,300,000 for 100% of the capital stock and \$60,000 as an adjustment to the purchase price for excess working capital with \$50,000 of such consideration placed in escrow for a period of one year to cover any claims by the purchaser for indemnification for certain limited types of losses incurred by the purchaser following the closing. The \$50,000 was recorded as restricted cash on the Company's Consolidated Balance Sheets. The proceeds received were used to pay down our revolver and used for working capital. Expense related to the sale of SYA totaled approximately \$96,000. The Company recorded a loss on the sale of SYA of approximately \$53,000 (net of taxes of \$0), which included a final excess working capital adjustment of approximately \$42,000. The loss on the sale of \$53,000 was included in "other" expense on our Consolidated Statements of Operations. On August 4, 2015, the Company received the \$50,000 which had been placed in escrow as discussed above.

## NOTE 9

### LONG-TERM DEBT

Long-term debt consists of the following at December 31, 2015 and 2014:

(Amounts in Thousands)	December 31, 2015	December 31, 2014
<b>Revolving Credit</b> facility dated October 31, 2011, borrowings based upon eligible accounts receivables, subject to monthly borrowing base calculation, variable interest paid monthly at option of prime rate (3.50% at December 31, 2015) plus 2.0% or London Interbank Offer Rate ("LIBOR") plus 3.0%, balance due October 31, 2016. Effective interest rate for 2015 and 2014 was 4.0% and 4.1%, respectively. (1)	\$ 2,349 (3)	\$ —
<b>Term Loan</b> dated October 31, 2011, payable in equal monthly installments of principal of \$190, balance due on October 31, 2016, variable interest paid monthly at option of prime rate plus 2.5% or LIBOR plus 3.5%. Effective interest rate for 2015 and 2014 was 3.7% and 3.7%, respectively. (1)	6,666 (3)	8,952
<b>Promissory Note</b> dated August 2, 2013, payable in twelve monthly installments of interest only, starting September 1, 2013 followed with twenty-four monthly installments of \$125 in principal plus accrued interest. Interest accrues at annual rate of 2.99%. (2) (4)	950	2,363
<b>Promissory Note</b> dated February 12, 2013, payable in monthly installments of \$10, which includes interest and principal, starting February 28, 2013, interest accrues at annual rate of 6.0%, paid in full on January 30, 2015. (2)	—	10
<b>Capital lease</b> (interest at rate of 6.0%)	23	47
	9,988	11,372
Less current portion of long-term debt	2,458	3,733
	<u>\$ 7,530</u>	<u>\$ 7,639</u>

(1) Our Revolving Credit facility is collateralized by our accounts receivable and our Term Loan is collateralized by our property, plant, and equipment.

(2) Uncollateralized note.

(3) As discussed in Note 17 – "Subsequent Events," on March 24, 2016, the Company entered into an amendment to its Amended Loan Agreement (see discussion below), dated October 31, 2011, with PNC Bank, National Association ("PNC") which extended the due date of our current Credit Facility from October 31, 2016 to March 24, 2021 (the amendment, together with the Amended Loan Agreement, is collectively known as the "Revised Loan Agreement"). Pursuant to the Revised Loan Agreement, the revolving line of credit is to remain at up to \$12,000,000 (subject to the amount of borrowings based on a percentage of eligible receivables as previously defined under the Amended Loan Agreement) with the term loan revised to \$6,100,000, with monthly payment of approximately \$102,000. In accordance with ASC 470, "Debt," this post balance-sheet date agreement demonstrated the Company's ability to refinance its short-term obligations on a long-term basis; therefore, the Company has reclassified the current portion of the outstanding debt to long-term except for \$1,486,000 in principal payments that will be due by December 31, 2016 (see Note 17 - "Subsequent Events" for further details of this Revised Loan Agreement).

(4) Net of debt discount of (\$50,000) and (\$137,000) at December 31, 2015 and December 31, 2014, respectively. See "Promissory Notes and Installment Agreements" below for additional information.

### **Revolving Credit and Term Loan Agreement**

The Company entered into an Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated October 31, 2011 (“Loan Agreement”), with PNC, acting as agent and lender. The Loan Agreement, as amended (“Amended Loan Agreement”) provides the Company with the following Credit Facility: (a) up to \$12,000,000 revolving credit (“Revolving Credit”), subject to the amount of borrowings based on a percentage of eligible receivables (as defined) and (b) a term loan (“Term Loan”) of \$16,000,000, which requires monthly installments of approximately \$190,000 (based on a seven-year amortization). As of December 31, 2015, the availability under the Company’s Revolving Credit was approximately \$2,687,000, based on our eligible receivables and was net of an indefinite reduction of borrowing availability of \$1,500,000. The Amended Loan Agreement authorized the Company to use the \$3,850,000 insurance settlement proceeds received on June 30, 2014 by our PFSG subsidiary (which suffered a fire and explosion on August 14, 2013 and is included within our discontinued operations) for working capital purposes but placed an indefinite reduction on our borrowing availability by the \$1,500,000 as discussed above.

The Company’s Credit Facility with PNC contains certain financial covenants, along with customary representations and warranties. A breach of any of these financial covenants, unless waived by PNC, could result in a default under our Credit Facility allowing our lender to immediately require the repayment of all outstanding debt under our Credit Facility and terminate all commitments to extend further credit. The Company’s Amended Loan Agreement prohibits us to declare, pay, or make any dividend distribution on any shares of our Common Stock or Preferred Stock. The Company met its quarterly fixed charge coverage ratio and minimum tangible adjusted net worth requirements in each of the quarters in 2015.

### **Promissory Notes and Installment Agreements**

On February 12, 2013, the Company entered into an unsecured promissory note (“the new note”) with Timios National Corporation (“TNC”) in the principal amount of approximately \$230,000 as a result of a settlement with TNC in connection with certain claims that the Company asserted against TNC for breach of certain representations and covenant subsequent to our acquisition of SEC from TNC on October 31, 2011. The new note was entered into as a result of the settlement in which a previously issued promissory note that the Company entered into with TNC as partial consideration of the purchase price of SEC was cancelled and terminated and replaced with the new note. Final payment of approximately \$10,000 on this note was made in January 2015.

On August 2, 2013, the Company completed a lending transaction with Messrs. Robert Ferguson and William Lampson (“collectively, the “Lenders”), whereby the Company borrowed from the Lenders the sum of \$3,000,000 (the “Loan”) (See payment terms of this promissory note in the table above). The Lenders are stockholders of the Company, having received shares of our Common Stock in connection with the acquisition of our PFNWR subsidiary in June 2007. The proceeds from the Loan were used for general working capital purposes. In connection with this Loan, the Lenders entered into a Subordination Agreement with the Company’s Credit Facility lender, whereby the Lenders agreed to subordinate payment under the Loan, and agreed that the Loan will be junior in right of payment to the Credit Facility in the event of default or bankruptcy or other insolvency proceeding by the Company. As consideration for the Company receiving the Loan, the Company issued a Warrant to each Lender to purchase up to 35,000 shares of the Company’s Common Stock at an exercise price of \$2.23 per share, which was based on the closing price of the Company’s Common Stock at the closing of the transaction. The Warrants are exercisable six months from August 2, 2013 and expire on August 2, 2016. The fair value of the Warrants was estimated to be approximately \$59,000 using the Black-Scholes option pricing model with the following assumptions: 55.54% volatility, risk free interest rate of .59%, an expected life of three years and no dividends. As further consideration for the Loan, the Company also issued an aggregate 90,000 shares of the Company’s Common Stock, with each Lender receiving 45,000 shares. The Company determined the fair value of the 90,000 shares of Common Stock to be approximately \$200,000 which was based on the closing price of the stock of \$2.23 per share on August 2, 2013. The fair value of the Warrants and Common Stock and the related closing fees incurred from the transaction were recorded as a debt discount, which is being amortized using the effective interest method over the term of the loan as interest expense – financing fees. Mr. Robert Ferguson serves as an advisor to the Company’s Board of Directors (see Note 15 – “Related Party Transaction – Mr. Robert Ferguson” for further information on Mr. Ferguson).

In the event of default of the promissory note by the Company, the Lenders have the option to receive a cash payment equal to the amount of the unpaid principal balance plus all accrued and unpaid interest (“Payoff Amount”), or the number of whole shares of the Company’s Common Stock equal to the Payoff Amount divided by the closing bid price of the Company’s Common Stock on the date immediately prior to the date of default of the promissory note, as reported by the primary national securities exchange on which the Company’s Common Stock is traded. The maximum number of payoff shares is restricted to less than 20% of the outstanding equity.

The following table details the amount of the maturities of long-term debt maturing in future years as of December 31, 2015 of our continuing operations (excludes debt discount of \$50,000). See footnote (3) above regarding the classification of the Company’s outstanding debt under our Amended Loan Agreement as current and long-term.

Year ending December 31:  
(In thousands)

	2016	\$	2,508
	Beyond 2016		7,530
	Total	\$	<u>10,038</u>

---

**NOTE 10**

**ACCRUED EXPENSES**

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

	2015	2014
Salaries and employee benefits	\$ 2,822	\$ 2,935
Accrued sales, property and other tax	202	410
Interest payable	9	22
Insurance payable	833	546
Other	475	627
Total accrued expenses	<u>\$ 4,341</u>	<u>\$ 4,540</u>

The Company has an individual Management Incentive Plan (“MIP”) for each of our CEO, Chief Financial Officer (“CFO”) and COO, which awards cash compensation based on achievement of certain performance targets for fiscal year 2015. A total of approximately \$214,000 (included in “salaries and employee benefits”) was accrued under the three MIPs for 2015. Such amounts are expected to be paid during the second quarter of 2016. No performance incentive payments were made under any of the MIPs in 2014.

---

**NOTE 11****ACCRUED CLOSURE COSTS AND ARO**

Accrued closure costs represent our estimated environmental liability to clean up our fixed-based regulated facilities as required by our permits, in the event of closure. Changes to reported closure liabilities for the years ended December 31, 2015 and 2014, were as follows:

Amounts in thousands	
Balance as of December 31, 2013	\$ 5,222
Accretion expense	286
Balance as of December 31, 2014	5,508
Accretion expense	299
Payments	(331)
Adjustment to closure liability	(175)
Balance as of December 31, 2015	\$ 5,301

The decreases in closure liabilities in 2015 included approximately \$331,000 of costs incurred in connection with the closure of processing unit/equipment at our PFNWR facility and a reduction of approximately \$175,000 in closure liabilities at our PFNWR facility resulting from a change in estimated closure costs.

The reported closure asset or ARO, is reported as a component of "Net Property and equipment" in the Consolidated Balance Sheet for the years ended December 31, 2015 and 2014 as follows:

Amounts in thousands	
Balance as of December 31, 2013	\$ 2,961
Amortization of closure and post-closure asset	(91)
Balance as of December 31, 2014	2,870
Amortization of closure and post-closure asset	(152)
Adjustment to closure and post-closure asset	(143)
Balance as of December 31, 2015	\$ 2,575

The adjustment to the ARO for 2015 was due to the adjustment made to our closure liability as discussed above.

---

**NOTE 12****INCOME TAXES**

The components of current and deferred federal and state income tax expense (benefit) for continuing operations for the years ended December 31, consisted of the following (in thousands):

	2015	2014
Federal income tax expense (benefit) - current	\$ 116	\$ (121)
Federal income tax expense - deferred	142	530
State income tax expense (benefit) - current	9	(1)
State income tax expense - deferred	276	9
Total income tax expense	\$ 543	\$ 417

We had temporary differences and net operating loss carry forwards from both our continuing and discontinued operations, which gave rise to deferred tax assets and liabilities at December 31, 2015 and 2014 as follows (in thousands):

	2015	2014
Deferred tax assets:		
Net operating losses	\$ 4,566	\$ 4,611
Environmental and closure reserves	2,497	2,520
Other	2,800	3,129
Deferred tax liabilities:		
Depreciation and amortization	(1,130)	(2,322)
Goodwill and indefinite lived intangible assets	(5,443)	(5,006)
Investment	—	(25)
Prepaid expenses	(122)	(17)
	3,168	2,890
Valuation allowance	(8,592)	(7,896)
Net deferred income tax liabilities	(5,424)	(5,006)

An overall reconciliation between the expected tax expense using the federal statutory rate of 34% and the expense for income taxes from continuing operations as reported in the accompanying Consolidated Statement of Operations is provided below (in thousands).

	2015	2014
Tax expense (benefit) at statutory rate	\$ 166	\$ (864)
State tax benefit, net of federal benefit	(93)	(66)
Change in deferred tax rates	208	—
Permanent items	84	137
Non-deductible Goodwill	—	129
Difference in foreign rate	40	98
Reversal of deferred tax assets for divested facility (SYA)	—	99
Reversal of deferred tax assets on stock compensation	—	593
Change in deferred tax liabilities	206	—
Other	(124)	75
Increase in valuation allowance	56	216
Income tax expense	\$ 543	\$ 417

The provision for income taxes is determined in accordance with ASC 740, "Income Taxes". Deferred income tax assets and liabilities are recognized for future tax consequences attributed to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred income tax assets and liabilities are measured using enacted income tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Any effect on deferred income tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

The Company regularly assesses the likelihood that the deferred tax asset will be recovered from future taxable income. The Company considers projected future taxable income and ongoing tax planning strategies, then records a valuation allowance to reduce the carrying value of the net deferred income taxes to an amount that is more likely than not to be realized. In 2015 and 2014, we determined that it was more likely than not that approximately \$8,592,000 and \$7,896,000, respectively, of deferred income tax assets would not be realized, and as such, a full valuation allowance was applied against those deferred income tax assets. Our valuation allowance increased by \$56,000 and \$216,000 for the years ended December 31, 2015 and 2014, respectively.

We have estimated net operating loss carryforwards (NOLs) for federal and state income tax purposes of approximately \$4,651,000 and \$52,784,000, respectively, as of December 31, 2015. These net operating losses can be carried forward and applied against future taxable income, if any, and expire in various amounts starting in 2021. However, as a result of various stock offerings and certain acquisitions, which in the aggregate constitute a change in control, the use of these NOLs will be limited under the provisions of Section 382 of the Internal Revenue Code of 1986, as amended. Additionally, NOLs may be further limited under the provisions of Treasury Regulation 1.1502-21 regarding Separate Return Limitation Years.



The Company accounts for uncertainties in income taxes pursuant to ASC 740. A reconciliation of the beginning and ending amount of our unrecognized tax expense is summarized as follows (in thousands):

	2015	2014
Balances at beginning of year	\$ —	\$ 180
Reduction related to prior year tax position	—	(180) <sup>(1)</sup>
Balances at end of the year	\$ —	\$ —

(1) Includes \$26,000 in interest and penalties.

The tax years 2012 through 2014 remain open to examination by taxing authorities in the jurisdictions in which the Company operates.

As of December 31, 2015 and 2014, the Company had approximately \$32,000 and \$85,000 of federal income tax payable, respectively.

---

## NOTE 13

### COMMITMENTS AND CONTINGENCIES

#### Hazardous Waste

In connection with our waste management services, we process 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 Matters

In the normal course of conducting our business, we are involved in various 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 effect on our financial position, liquidity or results of future operations.

#### Insurance

The Company has a 25-year finite risk insurance policy entered into in June 2003 with American International Group, Inc. (“AIG”), which provides financial assurance to the applicable states for our permitted facilities in the event of unforeseen closure. The policy, as amended, provides for a maximum allowable coverage of \$39,000,000 and has available capacity to allow for annual inflation and other performance and surety bond requirements. All of the required payments for this finite risk insurance policy, as amended, were made by 2012. As of December 31, 2015, our financial assurance coverage amount under this policy totaled approximately \$38,454,000. The Company has recorded \$15,460,000 and \$15,429,000 in sinking fund related to this policy in other long term assets on the accompanying Consolidated Balance Sheets as of December 31, 2015 and 2014, respectively, which includes interest earned of \$989,000 and \$958,000 on the sinking fund as of December 31, 2015 and 2014, respectively. Interest income for the twelve months ended December 31, 2015 and 2014 was approximately \$31,000 and \$20,000, respectively. If the Company so elects, AIG is obligated to pay the Company an amount equal to 100% of the sinking fund account balance in return for complete release of liability from both us and any applicable regulatory agency using this policy as an instrument to comply with financial assurance requirements.

In August 2007, the Company entered into a second finite risk insurance policy for our PFNWR facility with AIG. The policy provided an initial \$7,800,000 of financial assurance coverage with an annual growth rate of 1.5%, which at the end of the four year term policy, provides maximum coverage of \$8,200,000. The Company has made all of the required payments on this policy. The Company has recorded \$5,920,000 and \$5,905,000 in our sinking fund related to this policy in other long term assets on the accompanying Consolidated Balance Sheets as of December 31, 2015 and 2014, respectively, which includes interest earned of \$220,000 and \$205,000 on the sinking fund as of December 31, 2015 and 2014, respectively. Interest income for the twelve months ended December 31, 2015 and 2014 was approximately \$15,000 and \$7,000, respectively. This policy is renewed annually at the end of the four year term with a nominal fee for the variance between the coverage requirement and the sinking fund balance. The Company has renewed this policy annually from 2011 to 2015 (with fees ranging from \$41,000 to \$46,000 annually). All other terms of the policy remain substantially unchanged.

### Letter of Credits and Bonding Requirements

From time to time, we are required to post standby letters of credit and various bonds to support contractual obligations to customers and other obligations, including facility closures. As of December 31, 2015, the total amount of these bonds and letters of credit outstanding was approximately \$1,738,000, of which the majority of the amount relates to various bonding requirements.

### Operating Leases

The Company leases certain facilities and equipment under operating leases. The following table lists future minimum rental payments as of December 31, 2015 under these leases for our continuing operations (in thousands):

Year ending December 31:		
	2016	675
	2017	670
	2018	194
	beyond 2018	—
	Total	<u>\$ 1,539</u>

Total rent expense was \$976,000 and \$1,158,000 for the years ended 2015 and 2014, respectively, for our continuing operations. These amounts included payments on non-cancelable operating leases of approximately \$659,000 and \$826,000 for the years ended 2015 and 2014, respectively. The remaining rent expense was for non-contractual monthly and daily rentals of specific use vehicles, machinery and equipment.

---

### NOTE 14

#### PROFIT SHARING PLAN

The Company adopted a 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 full-time employees who have attained the age of 18 are eligible to participate in the 401(k) Plan. Eligibility is immediate upon employment but enrollment is only allowed during four quarterly open periods of January 1, April 1, July 1, and October 1. Participating employees may make annual pretax contributions to their accounts up to 100% of their compensation, up to a maximum amount as limited by law. The Company, at its discretion, may make matching contributions of 25% based on the employee's elective contributions. Company contributions vest over a period of five years. Effective June 15, 2012, the Company suspended its matching contribution in an effort to reduce costs in light of the economic environment. The Company commenced its matching contribution again effective January 1, 2015. In 2015, the Company contributed approximately \$303,000 in 401(k) matching funds.

---

---

**NOTE 15****RELATED PARTY TRANSACTIONS****Related Party Transactions***Mr. David Centofanti*

Mr. David Centofanti serves as the Company's Vice President of Information Systems. For such position, he received annual compensation of \$168,000 and \$163,000 in 2015 and 2014, respectively. Mr. Centofanti is the son of the Company's CEO, President and a Board member, Dr. Louis F. Centofanti.

*Mr. Robert L. Ferguson*

Mr. Robert L. Ferguson serves as an advisor to the Company's Board and is also a member of the Supervisory Board of PF Medical, a majority-owned Polish subsidiary of the Company. Mr. Ferguson previously served as a Board member for the Company from June 2007 to February 2010 and again from August 2011 to September 2012. As an advisor to the Company's Board, Mr. Ferguson is paid \$4,000 monthly plus reasonable expenses. For such services, Mr. Ferguson received compensation of approximately \$58,000 and \$56,000 for the years ended December 31, 2015 and 2014, respectively. On August 2, 2013, the Company completed a lending transaction with Messrs. Robert Ferguson and William Lampson ("collectively, the "Lenders"), whereby the Company borrowed from the Lenders the sum of \$3,000,000 pursuant to the terms of a Loan and Security Purchase Agreement and promissory note (the "Loan") (see further details and terms of this Loan in this Note 9 – "Long Term Debt – Promissory Notes and Installment Agreements").

*Mr. John Climaco*

On June 2, 2015, Mr. Climaco, a current member of the Company's Board and a member of the Strategic Advisory Committee of the Board, was elected as the EVP of PF Medical. As EVP of PF Medical, Mr. Climaco receives an annual salary of \$150,000 and is not eligible to receive compensation for serving on the Company's Board.

On October 17, 2014, the Company's Compensation Committee and the Board, with Mr. Climaco abstaining, approved a consulting agreement with Mr. Climaco. Pursuant to the consulting agreement, Mr. Climaco was responsible to, among other things:

- Review the Company's operations to restructure costs to render the Company more competitive;
- Evaluate all functions, including but not limited to sales, marketing, accounting, operations, and executive management as well as cost structures for each facility;
- Assist in the development of the Company's strategy opportunity and other initiatives, including but not limited to the development of the Company's medical isotope technology; and
- Other assignments as determined by the Board.

Mr. Climaco was paid \$22,000 per month under the consulting agreement, beginning September 2014, until the termination of the consulting agreement effective June 2, 2015, upon Mr. Climaco's election as EVP of PF Medical. For his services under the consulting agreement, Mr. Climaco received approximately \$117,000 and \$107,000 in 2015 and 2014, respectively.

Mr. Climaco is also a Director of Digirad Corporation. On July 24, 2015 PF Medical and Digirad entered into a multi-year Tc-99 Supplier Agreement and a Subscription Agreement (see further details of these agreements in this Note 3 – "PF Medical").

*Mr. Robert Schreiber, Jr.*

During March 2011, we entered into a five-year lease with Lawrence Properties LLC for certain office and warehouse space used and occupied by SYA, a wholly owned subsidiary of the Company until its sale by the Company on July 29, 2014. Lawrence Properties is owned by Robert Schreiber, Jr., the President of SYA until his resignation on July 29, 2014, and Mr. Schreiber's spouse. Under the lease, which commenced June 1, 2011, we paid monthly rent of approximately \$11,400. Rent payment under this lease was approximately \$72,000 for the year ended December 31, 2014. In connection with the Company's sale of SYA, the lease was terminated on July 29, 2014. Mr. Schreiber is a member of the Supervisory Board of PF Medical, a majority-owned Polish subsidiary of the Company.

### *Employment Agreements*

We have employment agreements (each dated July 10, 2014) with each of Dr. Centofanti (our President and CEO), Ben Naccarato (our CFO), and John Lash (our COO). Each employment agreement provides for annual base salaries, bonuses, and other benefits commonly found in such agreements. In addition, each employment agreement provides that in the event of termination of such officer without cause or termination by the officer for good reason (as such terms are defined in the employment agreement), the terminated officer shall receive payments of an amount equal to benefits that have accrued as of the termination but had not yet been paid, plus an amount equal to one year's base salary at the time of termination. In addition, the employment agreements provide that in the event of a change in control (as defined in the employment agreements), all outstanding stock options to purchase our Common Stock granted to, and held by, the officer covered by the employment agreement to be immediately vested and exercisable. The Company had an employment agreement dated August 24, 2011 with Mr. James A. Blankenhorn. On March 20, 2014, the Company accepted the resignation of Mr. James A. Blankenhorn, as Vice President and COO of the Company. The resignation was effective March 28, 2014. When Mr. Blankenhorn's resignation as the COO became effective, his employment agreement also terminated.

### *MIPs*

The Company has an individual MIP for each of our CEO, CFO and COO, which awards cash compensation based on achievement of certain performance targets for fiscal year 2015. A total of approximately \$214,000 (which is expected to be paid during the second quarter of 2016) was accrued under the three MIPs for 2015. See "Subsequent Events" in Note 17 for discussion of the 2016 MIPs.

---

## **NOTE 16**

### **SEGMENT REPORTING**

In accordance with ASC 280, "Segment Reporting", 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 chief operating decision maker ("CODM") to make decisions about resources to be allocated to the segment and assess its performance; and
- for which discrete financial information is available.

We currently have three reporting segments, which include Treatment and Services Segments, which are based on a service offering approach; and Medical, whose primary purpose at this time is the continuation of R&D of a new medical isotope production technology. The Medical Segment has not generated any revenues and all costs incurred are reflected within R&D in the accompanying Statements of Operations. Our reporting segments exclude our corporate headquarter and our discontinued operations (see Note 8 – "Discontinued Operations and Divestitures") which do not generate revenues.

The table below shows certain financial information of our reporting segments for 2015 and 2014 (in thousands).

### Segment Reporting as of and for the year ended December 31, 2015

	Segments			Corporate	(2)	Consolidated Total
	Treatment	Services	Medical			
Revenue from external customers	\$ 41,318	\$ 21,065	—	\$ 62,383 (3)	\$ —	\$ 62,383
Intercompany revenues	113	25	—	138	—	—
Gross profit	10,910	3,441	—	14,351	—	14,351
Research and Development	179	—	2,114	2,293	9	2,302
Interest income	6	—	—	6	47	53
Interest expense	(38)	—	—	(38)	(451)	(489)
Interest expense-financing fees	(2)	—	—	(2)	(226)	(228)
Depreciation and amortization	2,949	725	—	3,674	43	3,717
Segment income (loss) before income taxes	7,101	1,178	(2,114)	6,165	(5,685)	480
Income tax expense	538	—	—	538	5	543
Segment income (loss)	6,563	1,178	(2,114)	5,627	(5,690)	(63)
Segment assets <sup>(1)</sup>	46,307	9,481	1,793	57,581	25,484 (4)	83,065
Expenditures for segment assets	579	33	—	612	11	623
Total debt	23	—	—	23	9,965 (5)	9,988

### Segment Reporting as of and for the year ended December 31, 2014

	Segments			Corporate	(2)	Consolidated Total
	Treatment	Services	Medical			
Revenue from external customers	\$ 42,343	\$ 14,722	—	\$ 57,065 (3)	\$ —	\$ 57,065
Intercompany revenues	12	70	—	82	—	—
Gross profit	10,480	1,428	—	11,908	—	11,908
Research and Development	437	99	759	1,295	20	1,315
Interest income	—	—	—	—	27	27
Interest expense	(38)	(1)	—	(39)	(577)	(616)
Interest expense-financing fees	—	2	—	2	(194)	(192)
Depreciation and amortization	3,281	910	—	4,191	49	4,240
Segment income (loss) before income taxes	6,149	(2,184) (6)	(759)	3,206	(5,781)	(2,575)
Income tax expense (benefit)	604	(191)	—	413	4	417
Segment income (loss)	5,545	(1,993) (6)	(759)	2,793	(5,785)	(2,992)
Segment assets <sup>(1)</sup>	50,226	8,920	1,213	60,359	27,892 (4)	88,251
Expenditures for segment assets	399	64	—	463	1	464
Total debt	47	—	—	47	11,325 (5)	11,372

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

(2) Amounts reflect the activity for corporate headquarters not included in the segment information.

(3) The Company performed services relating to waste generated by the federal government, either directly as a prime contractor or indirectly as a subcontractor to the federal government, representing approximately \$36,105,000 or 57.9% of total revenue from continuing operations during 2015 and \$34,780,000 or 60.9% of total revenue from continuing operations during 2014. The following reflects such revenue generated by our two segments:

	2015	2014
Treatment	\$ 30,130,000	\$ 29,786,000
Services	5,975,000	4,994,000
Total	\$ 36,105,000	\$ 34,780,000

(4) Amount includes assets from our discontinued operations of \$565,000 and \$701,000, as of December 31, 2015 and 2014, respectively.

(5) Net of debt discount of (\$50,000) and (\$137,000) for 2015 and 2014, respectively, based on the estimated fair value at issuance of two Warrants and 90,000 shares of the Company's Common Stock issued on August 2, 2013 in connection with a \$3,000,000 promissory note entered into by the Company and Messrs. William Lampson and Robert L. Ferguson. See Note 9 – "Long-Term Debt – Promissory Note and Installment Agreement" for additional information.

(6) Included goodwill impairment charge of \$380,000 recorded for the Company's SYA subsidiary which was divested on July 29, 2014.



---

**NOTE 17**  
**SUBSEQUENT EVENTS***Credit Facility*

On March 24, 2016, the Company entered into an amendment to its Amended Loan Agreement (see Note 9 – “Long Term Debt” for a discussion of this Amended Loan Agreement) with our lender which provided, among other things, the following (the amendment, together with the Amended Loan Agreement is collectively known as the “Revised Loan Agreement”):

- extended the due date of our current Credit Facility from October 31, 2016 to March 24, 2021 (“maturity date”);
- amended the term loan to approximately \$6,100,000, which requires monthly payments of approximately \$102,000 (based on a five-year amortization) and which approximated the term loan balance under our existing Credit Facility at the date of the amendment. The revolving line of credit is to remain at up to \$12,000,000 (subject to the amount of borrowings based on a percentage of eligible receivables as previously defined under the Amended Loan Agreement);
- released \$1,000,000 of the \$1,500,000 borrowing availability hold that the lender had previously placed on the Company in connection with the insurance settlement proceeds received by our PFSG facility, which suffered a fire in 2013;
- revised the interest payment options to paying an annual rate of interest due on the Revolving Credit at prime plus 1.75% or LIBOR plus 2.75% and the Term Loan at prime plus 2.25% or LIBOR plus 3.25%; and
- revised our annual capital spending maximum limit from \$6,000,000 to \$3,000,000.

In connection with the amendment, the Company paid PNC a closing fee of \$70,000.

Pursuant to the amendment, the Company may terminate the Revised Loan Agreement upon 90 days’ prior written notice upon payment in full of its obligations under the Revised Loan Agreement. The Company has agreed to pay PNC 1.0% of the total financing in the event it pays off its obligations on or before March 23, 2017, .50% of the total financing if it pays off its obligations after March 23, 2017 but prior to or on March 23, 2018, and .25% of the total financing if it pays off its obligations after March 23, 2018 but prior to or on March 23, 2019. No early termination fee shall apply if the Company pays off its obligations after March 23, 2019.

All other terms of the Amended Loan Agreement remain principally unchanged.

*PFMI*

On September 29, 2015, PFMI entered into a Purchase Agreement (the “Agreement”) for the sale of the property which PFMI formerly operated on for a sale price of \$450,000, which is subject to completion of a due diligence by the buyer (see Note 8 – “Discontinued Operations and Divestitures” for further information regarding to PFMI). Upon execution of the Agreement, PFMI received a \$20,000 deposit which is being held in an escrow account (recorded as restricted cash within discontinued operations). In consideration of an amendment to the Agreement entered into on February 17, 2016, which included extending the time period for completion of the due diligence by the buyer, the buyer agreed to forfeit \$10,000 of the \$20,000 held in escrow to PFMI, which the \$10,000 was received by PFMI on February 18, 2016. Upon timely closing of the transaction, which is expected to be completed during the latter part of March 2016, the buyer shall receive a credit against the purchase price which shall be the lesser of \$15,000 and 50% of funds paid by the buyer for certain due diligence costs, and a credit against the purchase price of \$20,000. At closing, PFMI is expected to receive \$50,000 (which includes the remaining \$10,000 held in escrow) reduced by sales commissions and certain other closing costs and PFMI and the buyer will execute a Land Contract (“Contract”) which will provide for, among other things, the remaining balance of the purchase price of \$375,000 to be paid by the buyer in 60 equal monthly installment of approximately \$7,250, due on or before the 15<sup>th</sup> of each month immediately following the execution of the Contract. PFMI retains legal title to the property until the buyer fulfills the obligations under the Contract.

*Management Incentive Plans (MIPs)*

On February 4, 2016, the Company's Compensation and Stock Option Committee approved individual MIPs for our CEO, COO, and CFO. The MIPs are effective as of January 1, 2016. Each MIP awards cash compensation based on achievement of performance thresholds, with the amount of such compensation established as a percentage of base salary. The potential target performance compensation ranges from 5% to 100% or \$13,962 to \$279,248 of the 2016 base salary for the CEO, 5% to 100% or \$10,750 to \$215,000 of the 2016 base salary for the COO, and 5% to 100% or \$11,033 to \$220,667 of the 2016 base salary for the CFO.

**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

**ITEM 9A. CONTROLS AND PROCEDURES**

*Evaluation of disclosure, 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 "Commission") is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Commission and that such information is accumulated and communicated to our management, including the Chief Executive Officer ("CEO") (Principal Executive Officer), and Chief Financial Officer ("CFO") (Principal Financial Officer), as appropriate to allow timely decisions regarding the required disclosure. In designing and assessing our disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their stated control objectives and are subject to certain limitations, including the exercise of judgment by individuals, the difficulty in identifying unlikely future events, and the difficulty in eliminating misconduct completely. Our management, with the participation of our CEO and CFO, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 and 15d-15 of the Securities Exchange Act of 1934, as amended. Based upon this assessment, our CEO and CFO have concluded that our disclosure controls and procedures were effective as of December 31, 2015.

*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 accounting principles generally accepted in the United States of America. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements or fraudulent acts. 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. A control system, no matter how well designed, can provide only reasonable assurance with respect to financial statement preparation and presentation.



Internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of the consolidated financial statements in accordance with generally accepted accounting principles in the United States of America, and that receipts and expenditures of the Company are being made only in accordance with appropriate authorizations of management and directors of the Company; and (iii) 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 consolidated financial statements.

Management, with the participation of our CEO and CFO, conducted an assessment of the effectiveness of internal control over financial reporting as of December 31, 2015 based on the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Based on this assessment, management, with the participation of our CEO and CFO, concluded that the Company’s internal control over financial reporting was effective as of December 31, 2015.

This Form 10-K does not include an attestation report of the Company’s independent registered public accounting firm regarding internal control over financial reporting. Management’s report was not subject to attestation by the Company’s independent registered public accounting firm pursuant to the rules of the Commission that permit the Company to provide only management’s report in this Form 10-K.

#### **Changes in Internal Control over Financial Reporting**

There have been no changes in our internal controls over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) during the fiscal quarter ended December 31, 2015 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting except the following:

The Company’s tax filing and tax provision function are performed by separate third party tax professional firms which will assist with the oversight of our income tax provision preparation procedures. In addition, management has commenced the utilization of a checklist to ensure all major income tax components are accounted for during the review process.

#### **ITEM 9B. OTHER INFORMATION**

None.

### **PART III**

#### **ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

##### **DIRECTORS**

The following table sets forth, as of the date hereof, information concerning our Board of Directors (“Board”):

NAME <sup>(1)</sup>	AGE	POSITION
Dr. Louis F. Centofanti	72	Director; President and Chief Executive Officer (“CEO”); Supervisory Board Member, Perma-Fix Medical S.A.
John M. Climaco	47	Director; Executive Vice President, Perma-Fix Medical S.A.
Dr. Gary Kugler	75	Director; Supervisory Board Member, Perma-Fix Medical S.A.
Mr. Jack Lahav	67	Director
Honorable Joe R. Reeder	68	Director
Mr. Larry M. Shelton	62	Chairman of the Board; Supervisory Board Member, Perma-Fix Medical S.A.
Mr. Mark A. Zwecker	65	Director

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

<sup>(1)</sup> Dr. Charles E. Young elected not to stand for re-election at the Company’s 2015 Annual Meeting of Stockholders held on September 17, 2015. Dr. Young’s decision not to stand for re-election was not due to any disagreement with the Company.

## Director Information

### **Dr. Louis F. Centofanti**

Dr. Centofanti served as Chairman of our Board from the Company's inception in February 1991 until December 16, 2014, at which time Mr. Larry M. Shelton, an independent member of our Board, was appointed to the position of Chairman of the Board. Dr. Centofanti continues to serve as a member of our Board. Dr. Centofanti served as Company President and CEO (February 1991 to September 1995) and again in March 1996 was elected Company President and CEO. In January 2015, Dr. Centofanti was appointed by the U.S. Secretary of Commerce Penny Prizker to serve on the U.S. Department of Commerce's Civil Nuclear Trade Advisory Committee ("CINTAC"). The CINTAC is composed of industry representatives from the civil nuclear industry and meets periodically throughout the year to discuss the critical trade issues facing the U.S. civil nuclear sector. Effective June 2, 2015, Dr. Centofanti was elected to the Supervisory Board of Perma-Fix Medical S.A. ("PF Medical"), a majority-owned Polish subsidiary of the Company involved in the research and development of a new medical isotope production technology. From 1985 until joining the Company, Dr. Centofanti served as Senior Vice President ("SVP") 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. (later sold to USPCI), a hazardous waste management company specializing in treating PCB contaminated oil. 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.

As founder of Perma-Fix, PPM, Inc., and senior executive leader at USPCI, Dr. Centofanti combines extensive business experience in the waste management industry with a drive for innovative technology which is critical for a waste management company. In addition, his service in the government sector provides a solid foundation for the continuing growth of the Company, particularly within the Company's Nuclear business. Dr. Centofanti's comprehensive understanding of the Company and his extensive knowledge of its history, coupled with his drive for innovation and excellence, positions Dr. Centofanti to optimize our role in this competitive, evolving market, and led the Board to conclude that he should serve as a director.

### **John M. Climaco**

Mr. Climaco has been a director of the Company since October 2013. Effective June 2, 2015, Mr. Climaco was named the Executive Vice President ("EVP") of PF Medical, a majority-owned Polish subsidiary of the Company involved in the research and development of a new medical isotope production technology. From 2012 through 2015, Mr. Climaco served as an independent consultant to a variety of healthcare and medical technology companies. Since 2012, Mr. Climaco has served as a member of the Board for Digirad Corporation, a NASDAQ-listed company that manufactures cameras for nuclear imaging applications and provides for in-office nuclear cardiology imaging (see "Certain Relationships and Related Transactions, and Director Independence" for a discussion of certain transactions between Digirad and PF Medical and Mr. Climaco's employment with PF Medical). Mr. Climaco has also served as a board member for PDI, Inc., a provider of outsourced commercial services to pharmaceutical, biotechnology, and healthcare companies. He has also served as a board member for InfuSystem Holdings, Inc., a NASDAQ-listed company that is a leading supplier of infusion services to oncologists and other out-patient treatment settings. From 2003 to 2012, Mr. Climaco served as President and CEO, as well as a member of the Board of Axial Biotech, Inc., a venture-backed molecular diagnostics company specializing in spine disorders, which he cofounded in 2003. From 2001 to 2007, he practiced law for the firm of Fabian and Clendenin, specializing in corporate and tax legal strategies for diverse clients across the U.S. and Europe, as well as joint venture, corporate and securities transactions. Mr. Climaco earned his B.A. in Philosophy from Middlebury College and holds a J.D. from the University of California Hasting College of the Law.

Mr. Climaco's extensive legal and operational experience, including strategic planning and business development, provides valuable asset to the Company's immediate and future growth in our industry, and led the Board to conclude that he should serve as a director.

**Dr. Gary G. Kugler**

Dr. Gary Kugler, a director since September 2013, served as the Chairman of the Board of the Nuclear Waste Management Organization (“NWMO”) from 2006 to June 2014, where he led its oversight through the work of four committees, including an Audit-Finance-Risk Committee. NWMO was established under the Canadian Nuclear Fuel Waste Act (2002) to investigate and implement approaches for managing Canada’s used nuclear fuel. Dr. Kugler also served on the Board of Ontario Power Generation, Inc. (“OPG”) from 2004 to March 2014 where he served as a member on four different committees, including the Audit, Finance, and Risk Committee from 2004 to 2008. OPG is one of Canada’s largest electricity generation companies, owning 18 nuclear, 65 hydro, and two biomass power plants. Effective June 2, 2015, Dr. Kugler was elected to the Supervisory Board of PF Medical, a majority-owned Polish subsidiary of the Company involved in the research and development of a new medical isotope production technology. Dr. Kugler has had an extensive career in the nuclear industry, both nationally and internationally. He retired from Atomic Energy of Canada Limited (“AECL”) as SVP, Nuclear Products & Services, in 2004, where he was responsible for all of AECL’s commercial operations, including nuclear power plant sales and services world-wide. During his 34 years with AECL, he held various technical, project management, business development, and executive positions. Prior to joining AECL, Dr. Kugler served as a pilot in the Canadian air force. He holds a Ph.D. in nuclear physics from McMaster University and is a graduate of the Directors Education Program of the Institute of Corporate Directors.

Dr. Kugler’s extensive career in the nuclear industry, both nationally and internationally, brings valuable insight and knowledge to the Company as it expands its business internationally, and led the Board to conclude that he should serve as a director.

**Mr. Jack Lahav**

Jack Lahav, a director since September 2001, is a private investor and entrepreneur, specializing in launching and growing sophisticated technological businesses. Mr. Lahav is a philanthropist, devoting much of his time to charitable activities, serving as President as well as Board member of several charities. Mr. Lahav currently serves as Chairman of several companies, among them Docsera, a company that develops fast digitations capability for the education market; Buzzilla, an Israeli company that delivers the conversation on the internet a client seeks to follow about its organization or company; and Phoenix Audio Technologies, a company that provides better audio communication solutions for Voice over Internet Protocol (“VoIP”) and other internet applications. Previously, Mr. Lahav founded Remarkable Products Inc. and served as its President from 1980 to 1993. Mr. Lahav co-founded Lamar Signal Processing, Inc., a digital signal processing company, and was President of Advanced Technologies, Inc., a robotics company that was acquired by a leading U.S manufacturing company. Mr. Lahav served as a director of Vocaltec Communications, Ltd., the company that pioneered VoIP, and helped complete its initial public offering on NASDAQ. From 2001 to 2004, Mr. Lahav served as Chairman of Quigo Technologies, Inc., a search-engine company acquired by AOL in December 2007.

Having launched a number of successful businesses, Mr. Lahav has established a record of success in developing and growing many businesses. His “know how” enables him to provide important perspectives to the Board relating to a variety of business challenges. His commitment to charitable organizations provides a unique component of a well-rounded Board. These factors led the Board to conclude that he should serve as a director.

**Honorable Joe R. Reeder**

Mr. Reeder, a director since April 2003, served as the Shareholder-in-Charge of the Mid-Atlantic Region (1999-2008) for Greenberg Traurig LLP, one of the nation's largest law firms, with 57 offices and over 1,900 attorneys worldwide. Currently, a principal shareholder in the law firm, his clientele includes sovereign nations, international corporations, and law firms throughout the U.S. As the 14th Undersecretary of the U.S. Army (1993-97), Mr. Reeder also served for three years as Chairman of the Panama Canal Commission's Board where he oversaw a multibillion-dollar infrastructure program, and, for the past fourteen years has served on the International Advisory Board of the Panama Canal. He has served on the boards of the National Defense Industry Association (NDIA) (and chaired NDIA's Ethics Committee), the Armed Services YMCA, and many other private companies and charitable organizations. Following successive appointments by Governors Mark Warner and Tim Kaine, Mr. Reeder served seven years as Chairman of two Commonwealth of Virginia military boards and served ten years on the National USO Board. Mr. Reeder was appointed by governor Terry McCaulliffe to the Virginia Military Institute's Board of Visitors (2014). Mr. Reeder is also a television commentator on legal and national security issues. Among other corporate positions, he has been a director since September 2005 for ELBIT Systems of America, LLC, a NASDAQ company that provides product and system solutions focusing on defense, homeland security, and commercial aviation. Mr. Reeder also serves as a Board member for Washington First Bank (since April 2004). A graduate of West Point who served in the 82nd Airborne Division following Ranger School, Mr. Reeder earned his J.D. from the University of Texas and his L.L.M. from Georgetown University.

Mr. Reeder has a distinguished career in solving and overseeing solutions to complex issues involving both domestic and international concerns. His extensive knowledge and problem-solving experience has enhanced the Board's ability to address significant challenges in the nuclear market, and led the Board to conclude that he should serve as a director.

**Mr. Larry M. Shelton**

Mr. Shelton, a director since July 2006, was appointed to the position of Chairman of the Board of the Company on December 16, 2014, replacing Dr. Louis Centofanti, who held that position since February 1991. Mr. Shelton currently is the Chief Financial Officer ("CFO") (since 1999) of S K Hart Management, LC, an investment holding company. In January 2013, Mr. Shelton was elected President of Pony Express Land Development, Inc. (an affiliate of SK Hart Management, LC), a privately-held land development company, for which he has served on the Board since December 2005. In March 2012, he was appointed Director and CFO of S K Hart Ranches (PTY) Ltd, a private South African Company involved in agriculture business, and in April 2014, Mr. Shelton was appointed to the Supervisory Board of PF Medical, a majority-owned Polish subsidiary of the Company involved in the research and development of a new medical isotope production technology. Mr. Shelton has over 18 years of experience as an executive financial officer for several waste management companies. He was CFO of Envirocare of Utah, Inc. (1995-1999), and CFO of USPCI, Inc. (1982-1987), a New York Stock Exchange listed company. Since July 1989, Mr. Shelton has served on the Board of Subsurface Technologies, Inc., a privately-held company specializing in providing environmentally sound innovative solutions for water well rehabilitation and development. Mr. Shelton has a B.A. in accounting from the University of Oklahoma.

With his years of accounting experience as CFO for various companies, including a number of waste management companies, Mr. Shelton combines extensive knowledge and understanding of accounting principles, financial reporting requirements, evaluating and overseeing financial reporting processes and business matters. These factors led the Board to conclude that he should serve as a director.

**Mr. Mark A. Zwecker**

Mark Zwecker, a director since the Company's inception in January 1991, currently serves as the CFO and a Board member for JCI US Inc., a telecommunications company providing cellular service for machine to machine applications. From 2006 to 2013, Mr. Zwecker served as Director of Finance for Communications Security and Compliance Technologies, Inc., a software company developing security products for the mobile workforce. From 1997 to 2006, Mr. Zwecker served as President of ACI Technology, LLC, an IT services provider, and from 1986 to 1998, he served as Vice President of Finance and Administration for American Combustion, Inc., a combustion technology solution provider. In 1983, with Dr. Centofanti, Mr. Zwecker co-founded a start-up, PPM, Inc., a hazardous waste management company. 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.

As a director since our inception, Mr. Zwecker's understanding of our business provides valuable insight to the Board. With years of experience in operations and finance for various companies, including a number of waste management companies, Mr. Zwecker combines extensive knowledge of accounting principles, financial reporting rules and regulations, the ability to evaluate financial results, and understanding of financial reporting processes. He has an extensive background in operating complex organizations. Mr. Zwecker's experience and background position him well to serve as a member of our Board. These factors led the Board to conclude that he should serve as a director

## **BOARD LEADERSHIP STRUCTURE**

The Board recognizes that it is responsible for evaluating and determining its most effective leadership structure for the Company. As a result, in December 2014, the Board considered whether its leadership structure was optimal in light of the competitive environment in the Company operates, and whether an alternate structure would be preferred to provide effective Board leadership and oversight of management by the Board. Based on these considerations, on December 16, 2014, the Board decided to separate the positions of Chairman of the Board and CEO, and appointed Larry M. Shelton, a current independent director of the Company, to serve as the Chairman of the Board, with Dr. Louis Centofanti continuing to serve as CEO. Prior to that time, both such positions were held by Dr. Centofanti.

Our directors continue to have increasingly more oversight responsibilities, and the Company believes that an independent Chairman, whose sole responsibility is leading the Board, will enable our CEO to focus primarily on the Company's business goals and implementing our growth strategies for the benefit of the Company and its shareholders. As noted, the Board recognizes that there is no "one structure fits all" model for providing corporate leadership, and the Company's leadership structure may change in the future as circumstances may dictate.

Mr. Mark Zwecker, a current member of our Board, continues to serve as the Independent Lead Director, a position he has held since February 2010. The Lead Director's role includes:

- convening and chairing meetings of the non-employee directors as necessary from time to time and Board meetings in the absence of the Chairman of the Board;
- acting as liaison between directors, committee chairs and management;
- serving as information sources for directors and management; and
- carrying out responsibilities as the Board may delegate from time to time.

## **AUDIT COMMITTEE**

We have a separately designated standing Audit Committee of our Board established in accordance with Section 3(a)(58)(A) of the Exchange Act. The members of the Audit Committee are Mark A. Zwecker (Chairperson), Larry M. Shelton, and Jack Lahav, who replaced Dr. Gary G. Kugler as a member of the Audit Committee effective September 17, 2015.

Our Board has determined that each of our Audit Committee members is and was independent within the meaning of the rules of NASDAQ and is an "audit committee financial expert" as defined by Item 407(d)(5)(ii) of Regulation S-K of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

The Audit Committee has also received from, and discussed with, Grant Thornton, LLP, the Company's independent registered accounting firm, the matters required to be discussed by Public Company Accounting Oversight Board ("PCAOB") Auditing Standard No. 16 (Communications with Audit Committee).

## **BOARD INDEPENDENCE**

The Board has determined that each director, other than Dr. Centofanti and Mr. John Climaco, is "independent" within the meaning of the applicable NASDAQ rules. Dr. Centofanti is not deemed to be an "independent director" because of his employment as a senior executive of the Company. The Board determined that Mr. Climaco does not currently qualify as an "independent director" because of his employment effective June 2, 2015, as EVP of PF Medical, a majority-owned Polish subsidiary of the Company and because he is also a director of Digirad Corporation which PF Medical entered into a supplier agreement and a subscription agreement (together, the "Digirad Agreement") on July 24, 2015 (see "John Climaco" under "Certain Relationships and Related Transactions, and Director Independence" for further discussion of his position with PF Medical and a description of the Digirad Agreement).

## **COMPENSATION AND STOCK OPTION COMMITTEE**

The Compensation and Stock Option Committee (“Compensation Committee”) reviews and recommends to the Board the compensation and benefits of all of the Company’s officers and reviews general policy matters relating to compensation and benefits of the Company’s employees. The Compensation Committee also administers the Company’s stock option plans. The Compensation Committee has the sole authority to retain and terminate a compensation consultant, as well as to approve the consultant’s fees and other terms of engagement. It also has the authority to obtain advice and assistance from internal or external legal, accounting or other advisors. No compensation consultant was employed during 2015. Members of the Compensation Committee are Dr. Gary G. Kugler (who became a member effective September 17, 2015 and who also replaced Larry Shelton as Chairperson of the Compensation Committee effective September 17, 2015), Larry M. Shelton, Joe R. Reeder, and Mark A. Zwecker. Dr. Charles E. Young was a member of the Compensation Committee until his departure from the Board effective September 17, 2015. Dr. Young elected not to stand for re-election at the Company’s 2015 Annual Meeting of Stockholders held on September 17, 2015. None of the members of the Compensation Committee has been an officer or employee of the Company or has had any relationship with the Company requiring disclosure under applicable Securities and Exchange Commission regulations.

## **CORPORATE GOVERNANCE AND NOMINATING COMMITTEE**

We have a separately-designated standing Corporate Governance and Nominating Committee (the “Nominating Committee”). Members of the Nominating Committee are Joe R. Reeder (Chairperson), Jack Lahav, Dr. Gary G. Kugler. Dr. Charles E. Young served on the Nominating Committee until his departure from the Board effective September 17, 2015. All members of the Nominating Committee are and were “independent” as that term is defined by current NASDAQ listing standards.

The Nominating Committee recommends to the Board candidates to fill vacancies on the Board and the nominees for election as the directors at each annual meeting of stockholders. In making such recommendation, the Nominating Committee takes into account information provided to them from the candidate, as well as the Nominating Committee’s own knowledge and information obtained through inquiries to third parties to the extent the Nominating Committee deems appropriate. The Company’s Amended and Restated Bylaws (the “Bylaws”) sets forth certain minimum director qualifications to qualify for nomination for elections as a Director. To qualify for nomination or election as a director, an individual must:

- be an individual at least 21 years of age who is not under legal disability;
- have the ability to be present, in person, at all regular and special meetings of the Board;
- not serve on the boards of more than three other publicly held companies;
- satisfy the director qualification requirements of all environmental and nuclear commissions, boards or similar regulatory or law enforcement authorities to which the Corporation is subject so as not to cause the Corporation to fail to satisfy any of the licensing requirements imposed by any such authority;
- not be affiliated with, employed by or a representative of, or have or acquire a material personal involvement with, or material financial interest in, any “Business Competitor” (as defined);
- not have been convicted of a felony or of any misdemeanor involving moral turpitude; and
- have been nominated for election to the Board in accordance with the terms of the Bylaws.

In addition to the minimum director qualifications as mentioned above, each candidate’s qualifications are also reviewed to include:

- standards of integrity, personal ethics and value, commitment, and independence of thought and judgment;
- ability to represent the interests of the Company’s stockholders;
- ability to dedicate sufficient time, energy and attention to fulfill the requirements of the position; and
- diversity of skills and experience with respect to accounting and finance, management and leadership, business acumen, vision and strategy, charitable causes, business operations, and industry knowledge.

The Nominating Committee does not assign specific weight to any particular criteria and no particular criterion is necessarily applicable to all prospective nominees. The Nominating Committee does not have a formal policy for the consideration of diversity in identifying nominees for directors; however, the Company believes that the backgrounds and qualifications of the directors, considered as a group, should provide a significant composite mix of experience, knowledge, and abilities that will allow the Board to fulfill its responsibilities.

#### **Stockholder Nominees**

There have been no changes to the stockholder nomination process since the Company's last proxy statement. The procedure for stockholder nominees to the Board is set out below.

The Nominating Committee will consider properly submitted stockholder nominations for candidates for membership on the Board from stockholders who meet each of the requirements set forth in the Bylaws, including, but not limited to, the requirements that any such stockholder own at least 1% of the Company's shares of the Common Stock entitled to vote at the meeting on such election, has held such shares continuously for at least one full year, and continuously holds such shares through and including the time of the annual or special meeting. Nominations of persons for election to the Board may be made at any Annual Meeting of Stockholders, or at any Special Meeting of Stockholders called for the purpose of electing directors. Any stockholder nomination ("Proposed Nominee") must comply with the requirements of the Bylaws and the Proposed Nominee must meet the minimum qualification requirements as discussed above. For a nomination to be made by a stockholder, such stockholder must provide advance written notice to the Nominating Committee, delivered to the Company's principal executive office address (i) in the case of an Annual Meeting of Stockholders, no later than the 90th day nor earlier than the 120th day prior to the anniversary date of the immediately preceding Annual Meeting of Stockholders; and (ii) in the case of a Special Meeting of Stockholders called for the purpose of electing directors, not later than the 10th day following the day on which public disclosure of the date of the Special Meeting of Stockholders was made.

The Nominating Committee will evaluate the qualification of the Proposed Nominee and the Proposed Nominee's disclosure and compliance requirements in accordance with the Company's Bylaws. If the Board, upon the recommendation of the Nominating Committee, determines that a nomination was not made in accordance with the Bylaws, the Chairman of the Meeting shall declare the nomination defective and it will be disregarded.

#### **RESEARCH AND DEVELOPMENT COMMITTEE**

We have a separately-designated standing Research and Development Committee (the "R&D Committee"). Members of the R&D Committee include Dr. Gary G. Kugler and Dr. Louis Centofanti.

The R&D Committee outlines the structures and functions of the Company's research and development strategies, the acquisition and protection of the Company's intellectual property rights and assets, and provides its perspective on such matter to the Board. The R&D Committee does not have a charter.

#### **STRATEGIC ADVISORY COMMITTEE**

We have a separately-designated Strategic Advisory Committee (the "Strategic Committee"). The primary functions of the Strategic Committee are to investigate and evaluate strategic alternatives available to the Company and to work with management on long-range strategic planning and identifying potential new business opportunities. The members of the Strategic Advisory Committee are John M. Climaco (Chairperson), Joe R. Reeder, Mark A. Zwecker, and Larry M. Shelton. The Strategic Advisory Committee does not have a charter.

## EXECUTIVE OFFICERS OF THE REGISTRANT

The following table sets forth, as of the date hereof, information concerning our executive officers:

NAME	AGE	POSITION
Dr. Louis Centofanti	72	President and Chief Executive Officer (“CEO”)
Mr. Ben Naccarato	53	Chief Financial Officer (“CFO”), Vice President, and Secretary
Mr. John Lash	53	Chief Operating Officer (“COO”)

### Dr. Louis Centofanti

See “Director – Dr. Louis F. Centofanti” in this section for information on Dr. Centofanti.

### Mr. Ben Naccarato

Mr. Naccarato has served as the CFO since February 26, 2009. Mr. Naccarato joined the Company in September 2004 and served as Vice President, Finance of the Company’s Industrial Segment until May 2006, when he was named Vice President, Corporate Controller/Treasurer. Prior to joining the Company in September 2004, Mr. Naccarato was the CFO of Culp Petroleum Company, Inc., a privately held company in the fuel distribution and used waste oil industry from December 2002 to September 2004. In July 2015, Mr. Naccarato was named the CFO of PF Medical, the Company’s majority-owned Polish subsidiary involved in the research and development of a new medical isotope technology. Effective December 22, 2015, Mr. Naccarato was appointed to the Management Board of PF Medical. Mr. Naccarato is a graduate of University of Toronto having received a Bachelor of Commerce and Finance Degree and is a Chartered Professional Accountant, Certified Management Accountant.

### Mr. John Lash

Mr. Lash had served as the Company’s COO since March 20, 2014. Mr. Lash previously served as SVP of Operations of the Company’s Treatment Segment for over ten years. Mr. Lash has over 20 years of experience in the nuclear industry, with specific experience in managing remedial activities, as well as decontamination and disposal of radioactive materials from commercial and government operating facilities. As SVP of Operations, Mr. Lash was responsible for all treatment and remediation activities. Prior to joining Perma-Fix in 2001, Mr. Lash served as Broad Spectrum Manager for Waste Control Specialists in Dallas, TX where his responsibilities included contract management of U.S. Department of Energy (“DOE”) nationwide procurement for mixed waste treatment services, business development activities, and technology development. Prior to that, he worked for ten years at Chem-Nuclear Systems where he held various managerial positions including manager of the Chem-Nuclear Consolidation Facility. Mr. Lash received his education and qualification from the U.S. Navy Nuclear Power Program, where he served for 8 years prior to working in the commercial and nuclear industry.

### Certain Relationships

There are no family relationships between any of the directors or executive officers.

### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act, and the regulations promulgated thereunder require our executive officers and directors and beneficial owners of more than 10% of our Common Stock to file reports of ownership and changes of ownership of our Common Stock 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 written information provided to us, we believe that during 2015 none of our executive officers, directors, or beneficial owners of more than 10% of our Common Stock failed to timely file reports under Section 16(a), except for Mr. Jack Lahav, who inadvertently failed to timely file two Form 4s to report two transactions.

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, individually or as a group, 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) of the Exchange Act 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 of, 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 our Preferred Stock that were convertible into a maximum of 256,560 shares of our Common Stock. 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, or at any time thereafter, 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 since February 9, 1996. (See "Item 12 - Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matter – Security Ownership of Certain Beneficial Owners" for a discussion of Capital Bank's current record ownership of our securities).

#### Code of Ethics

Our Code of Ethics applies to all our executive officers, including our CEO and CFO, and is available on our website at [www.permatrix.com](http://www.permatrix.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 or waiver on our website at the same web address.

### ITEM 11. EXECUTIVE COMPENSATION

#### Summary Compensation

The following table summarizes the total compensation paid or earned by each of the named executive officers ("NEOs") for the fiscal years ended December 31, 2015 and 2014.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Option Awards (\$) <sup>(4)</sup>	Non-Equity	All other	Total
					Incentive Plan Compensation (\$) <sup>(5)</sup>	Compensation (\$) <sup>(6)</sup>	Compensation (\$)
Dr. Louis Centofanti <sup>(1)</sup> President and CEO	2015	271,115	—	—	82,691	31,446	385,252
	2014	271,115	—	—	—	26,141	297,256
Ben Naccarato Vice President and CFO	2015	214,240	—	—	65,343	37,710	317,293
	2014	214,240	—	—	—	33,135	247,375
John Lash <sup>(2)</sup> Vice President and COO	2015	215,000	—	—	65,575	26,863	307,438
	2014	201,770	25,000 <sup>(3)</sup>	129,739	—	23,372	379,881

(1) Effective December 16, 2014, Mr. Larry Shelton, a current independent member of the Board, replaced Dr. Centofanti as Chairman of the Board.

(2) Named as COO effective March 20, 2014. Previously, Mr. Lash served as SVP of Operations for the Company's Treatment Segment. The salary noted for 2014 reflects prorated amount earned as SVP of Operations for the Treatment Segment and prorated amount earned as the COO.

- (3) Represents a sign-on bonus upon becoming as COO of the Company on March 20, 2014.
- (4) Reflects the aggregate grant date fair value of awards computed in accordance with ASC 718, "Compensation – Stock Compensation." Assumptions used in the calculation of this amount are included in Note 5 – "Capital Stock, Stock Plans, Warrants and Stock Based Compensation" to "Notes to Consolidated Financial Statement." No options were granted to any NEOs in 2015. No options were granted to NEOs in 2014 with the exception of Mr. Lash.
- (5) Represents performance compensation earned under the Company's Management Incentive Plan ("MIP") with respect to each NEO. The MIP for each NEO is described under the heading "2015 Management Incentive Plans ("MIP")." See compensation earned under each of the 2015 MIPs under the heading "Compensation Earned under 2015 MIPs". No compensation was earned by any named executive officer under his respective MIP for 2014.
- (6) The amount shown includes a monthly automobile allowance (\$500 or \$750), insurance premiums (health, disability and life) paid by the Company, on behalf of the executive, and 401(k) matching contribution. No 401(k) matching contribution was included in such calculation for 2014 as the Company did not provide matching during 2014.

Name	Insurance Premium	Auto Allowance or Company Car	401(k) match	Total
Dr. Louis Centofanti	\$ 17,028	\$ 9,000	\$ 5,418	\$ 31,446
Ben Naccarato	\$ 24,039	\$ 9,000	\$ 4,671	\$ 37,710
John Lash	\$ 17,028	\$ 6,000	\$ 3,835	\$ 26,863

### Outstanding Equity Awards at Fiscal Year

The following table sets forth unexercised options held by the NEOs as of the fiscal year-end.

#### Outstanding Equity Awards at December 31, 2015

Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) <sup>(1)</sup> Unexercisable	Option Awards		
			Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Option Exercise Price (\$)	Option Expiration Date
Dr. Louis Centofanti	—	—	—	—	—
Ben Naccarato	—	—	—	—	—
John Lash	15,000	30,000 <sup>(2)</sup>	—	5.00	7/10/2020

<sup>(1)</sup> In the event of a change in control (as defined in the Option Plan) of the Company, each outstanding option and award shall immediately become exercisable in full notwithstanding the vesting or exercise provisions contained in the stock option agreement.

<sup>(2)</sup> Incentive stock option granted on July 10, 2014 under the Company's 2010 Stock Option Plan. The option is for a six year term and vests over a three year period, at one third increments per year.

None of the Company's NEOs exercised options during 2015.

### Employment Agreements

The Company entered into employment agreements on July 10, 2014 with our CEO, COO, and CFO (each is a named NEO), which were approved by the Compensation Committee and the Board. These agreements provided that (a) Dr. Centofanti, CEO, was entitled to receive an annual base salary of \$271,115; (b) Mr. Lash, COO, was entitled to receive an annual base salary of \$215,000; and (c) Mr. Naccarato, CFO, was entitled to receive an annual base salary of \$214,240. The base salary is subject to adjustment as determined by the Compensation Committee. In addition to base salary, each of these executive officers is entitled to participate in the Company's benefits plans and to any performance compensation payable under an individual MIP for the CEO, CFO, and COO (see further detail of each MIP below under the heading "2015 Management Incentive Plans ("MIPs)"). The employment agreements dated July 10, 2014 with our CEO, COO, and CFO are collectively referred to as the "Employment Agreements" and each as an "Employment Agreement."



Each of the Employment Agreements is effective for three years. Each Employment Agreement may be terminated prior to its expiration by the Company with or without “cause” (as defined below) or by the executive officer for “good reason” (as defined below) or any other reason. If the NEO’s employment is terminated due to death, disability or for cause, we will pay to the NEO or to his estate a lump sum equal to the sum of any unpaid base salary through the date of termination and any benefits otherwise due at that time under any employee benefit plan, excluding any severance program or policy (the “Accrued Amounts”).

If the NEO terminates his employment for “good reason” or is terminated without cause, we will pay the NEO a sum equal to the total Accrued Amounts, plus one year of full base salary. If the NEO terminates his employment for a reason other than for good reason, we will pay to him the amount equal to the Accrued Amounts. If there is a Change in Control (as defined below), all outstanding stock options to purchase common stock held by the NEO will immediately become vested and exercisable in full. The amounts payable with respect to a termination (other than base salary and amounts otherwise payable under any Company employee benefit plan) are payable only if the termination constitutes a “separation from service” (as defined under Treasury Regulation Section 1.409A-1(h)).

“Cause” is generally defined in each of the Employment Agreements as follows:

- the ultimate conviction (after all appeals have been decided) of the executive by a court of competent jurisdiction, or a plea of nolo contendere or a plea of guilty by the executive, to a felony involving a moral turpitude;
- willful or gross misconduct or gross neglect of duties by the executive, which is injurious to the Company. Failure of the executive to perform his duties due to disability shall not be considered gross misconduct or gross neglect of duties;
- act of fraud or embezzlement against the Company; and
- willful breach of any material provision of the employment agreement.

“Good reason” is generally defined in each of the Employment Agreements as follows:

- assignment to the executive of duties inconsistent with his responsibilities as they existed during the 90-day period preceding the date of the employment agreement, including status, office, title, and reporting requirement;
- any other action by the Company which results in a reduction in (i) the compensation payable to the executive, or (ii) the executive’s position, authority, duties, or other responsibilities without the executive’s prior approval;
- the relocation of the executive from his base location on the date of the employment agreement, excluding travel required in order to perform the executive’s job responsibilities;
- any purported termination by the Company of the executive’s employment otherwise than as permitted by the agreement; and
- any material breach by the Company of any provision of the employment agreement, except that an insubstantial or inadvertent breach by the Company which is promptly remedied by the Company after receipt of notice by the executive is not considered a material breach.

“Change in Control” is generally defined in each of the Employment Agreements as follows:

- a transaction in which any person, entity, corporation, or group (as such terms are defined in Sections 13(d)(3) and 14(d)(2) of the Exchange (other than the Company, or a profit sharing, employee ownership or other employee benefit plan sponsored by the Company or any subsidiary of the Company): (i) will purchase any of the Company’s voting securities (or securities convertible into such voting securities) for cash, securities or other consideration pursuant to a tender offer, or (ii) will become the “beneficial owner” (as such term is defined in Rule 13d-3 under the Exchange Act, directly or indirectly (in one transaction or a series of transactions), of securities of the Company representing 50% or more of the total voting power of the then outstanding securities of the Company ordinarily having the right to vote in the election of directors; or
- a change, without the approval of at least two-thirds of the Board then in office, of a majority of the Company’s Board; or
- the Company’s execution of an agreement for the sale of all or substantially all of the Company’s assets to a purchaser which is not a subsidiary of the Company; or
- the Company’s adoption of a plan of dissolution or liquidation; or
- the Company’s closure of the facility where the executive works; or
- the Company’s execution of an agreement for a merger or consolidation or other business combination involving the Company in which the Company is not the surviving corporation, or, if immediately following such merger or consolidation or other business combination, less than fifty percent (50%) of the surviving corporation’s outstanding voting stock is held by persons who are stockholders of the Company immediately prior to such merger or consolidation or other business combination; or
- such event that is of a nature that is required to be reported in response to Item 5.01 of Form 8-K.

## Potential Payments

The following table sets forth the potential (estimated) payments and benefits to which our NEOs, Dr. Centofanti, Mr. Lash, and Mr. Naccarato, would be entitled upon termination of employment or following a Change in Control of the Company, as specified under each Employment Agreement with the Company, assuming each circumstance described below occurred on December 31, 2015, the last day of our fiscal year.

Name and Principal Position	Disability, Death, or For Cause	Termination by Executive for Good Reason or by Company Without Cause	Change in Control of the Company
<b>Dr. Louis Centofanti</b>			
President, CEO and Director			
Severance	\$ —	\$ 271,115	\$ —
Stock Options	\$ — <sup>(1)</sup>	\$ — <sup>(1)</sup>	\$ — <sup>(1)</sup>
<b>Ben Naccarato</b>			
CFO			
Severance	\$ —	\$ 214,240	\$ —
Stock Options	\$ — <sup>(1)</sup>	\$ — <sup>(1)</sup>	\$ — <sup>(1)</sup>
<b>John Lash</b>			
COO			
Severance	\$ —	\$ 215,000	\$ —
Stock Options	\$ — <sup>(2)</sup>	\$ — <sup>(2)</sup>	\$ — <sup>(3)</sup>

(1) No stock option outstanding as of December 31, 2015.

(2) Benefit is estimated to be zero since the number of stock options vested that were in-the-money as of December 31, 2015 (as reported on NASDAQ) was zero.

(3) Benefit is estimated to be zero since the number of stock options outstanding that were in-the-money as of December 31, 2015 (as reported on NASDAQ) was zero.

No performance compensation under the NEO's MIP would have been payable at December 31, 2015 under any of the circumstances described in the table above. Pursuant to each MIP, if the participant's employment with the Company is voluntarily or involuntarily terminated prior to the annual payment of the MIP compensation payment period, no MIP payment is payable. The payment is otherwise payable under each MIP on or about 90 days after year-end, or sooner, based on finalization of our financial statements for year-end. See "2015 Management Incentive Plans ("MIPs")" below.

The amounts payable with respect to a termination (other than base salary and amounts otherwise payable under any Company employee benefit plan) are payable only if the termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

## 2015 Executive Compensation Components

For the fiscal year ended December 31, 2015, the principal components of compensation for executive officers were:

- base salary;
- performance-based incentive compensation;
- long term incentive compensation;
- retirement and other benefits; and
- perquisites.

Based on the amounts set forth in the Summary Compensation table, during 2015, salary accounted for approximately 69% of the total compensation of our NEOs, while equity option awards, bonus, MIP compensation, and other compensation accounted for approximately 31% of the total compensation of the NEOs.

## Base Salary

The NEOs, other executive officers, and other employees of the Company receive a base salary during the fiscal year. Base salary ranges for executive officers are determined for each executive based on his or her position and responsibility by using market data and comparisons to the Peer Group.



During its review of base salaries for executives, the Compensation Committee primarily considers:

- market data and Peer Group comparisons;
- internal review of the executive's compensation, both individually and relative to other officers; and
- individual performance of the executive.

Salary levels are typically considered annually as part of the performance review process as well as upon a promotion or other change in job responsibility. Merit based salary increases for executives are based on the Compensation Committee's assessment of the individual's performance. The base salary and potential annual base salary adjustments for the CEO, COO, and CFO are set forth in their respective Employment Agreements.

#### **Performance-Based Incentive Compensation**

The Compensation Committee has the latitude to design cash and equity-based incentive compensation programs to promote high performance and achievement of our corporate objectives by directors and the NEOs, encourage the growth of stockholder value and enable employees to participate in our long-term growth and profitability. The Compensation Committee may grant stock options and/or performance bonuses. In granting these awards, the Compensation Committee may establish any conditions or restrictions it deems appropriate. In addition, the CEO has discretionary authority to grant stock options to certain high-performing executives or officers, subject to the approval of the Compensation Committee. The exercise price for each stock options granted is at or above the market price of our Common Stock on the date of grant. Stock options may be awarded to newly hired or promoted executives at the discretion of the Compensation Committee. Grants of stock options to eligible newly hired executive officers are generally made at the next regularly scheduled Compensation Committee meeting following the hire date.

#### **2015 Management Incentive Plans ("MIPs")**

On April 17, 2015, the Compensation Committee approved individual MIPs for our CEO, COO, and CFO. The MIPs were effective as of January 1, 2015. Each MIP provided guidelines for the calculation of annual cash incentive based compensation, subject to Compensation Committee oversight and modification. Each MIP awarded cash compensation based on achievement of performance thresholds (as discussed below), with the amount of such compensation established as a percentage of base salary. The potential target performance compensation ranged from 5% to 100% or \$13,556 to \$271,115 of the 2015 base salary for the CEO, 5% to 100% or \$10,750 to \$215,000 of the 2015 base salary for the COO, and 5% to 100% or \$10,712 to \$214,240 of the 2015 base salary for the CFO.

Performance compensation is paid on or about 90 days after year-end, or sooner, based on finalization of our audited financial statements for 2015. If the MIP participant's employment with the Company is voluntarily or involuntarily terminated prior to a regularly scheduled MIP compensation payment date, no MIP payment will be payable for and after such period.

The Compensation Committee retained the right to modify, change or terminate each MIP and may adjust the various target amounts described below, at any time and for any reason.

The total performance compensation payable to the CEO, COO, and CFO as a group was not to exceed 50% of the Company's pre-tax net income prior to the calculation of performance compensation.



The following describes the principal terms of each MIP:

*CEO MIP:*

2015 CEO performance compensation was based upon meeting corporate revenue, earnings before interest, taxes, depreciation and amortization (“EBITDA”), health and safety, and environmental compliance (permit and license violations) objectives during fiscal year 2015 from our continuing operations (excluding PF Medical). The Compensation Committee believes performance compensation payable under each of the 2015 MIPs as discussed herein and below should be based on achievement of EBITDA Target as this target provides better indicator of operating performance as it excludes certain non-cash items. EBITDA has certain limitations as it does not reflect all items of income or cash flows that affect the Company’s financial performance under Generally Accepted Accounting Principles (“GAAP”). At achievement of 70% to 119% of the Revenue and EBITDA Targets, the potential performance compensation was payable at 5% to 50% of the total base salary, of which 60% was based on EBITDA goal, 10% on revenue goal, 15% on the number of health and safety claim incidents that occurred during fiscal year 2015, and the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occurred during the fiscal year 2015. Upon achievement of over 119% of the Revenue and EBITDA Targets, with potential performance compensation payable at over 50% to 100% of the total base salary, the amount of total performance compensation payable was based on the four objectives noted above, with the payment of such performance compensation being weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components was based on our Board approved Revenue Target and EBITDA Target. The 2015 target performance incentive compensation for our CEO was as follows:

Annualized Base Pay:	\$ 271,115
Performance Incentive Compensation Target (at 100% of MIP):	\$ 135,558
Total Annual Target Compensation (at 100% of MIP):	\$ 406,673

	<b>TARGET</b>						
Revenue Target	\$42,500,000	\$59,500,000	\$72,250,000	<b>\$85,000,000</b>	\$102,000,000	\$119,000,000	\$136,000,000
EBITDA Target	\$ 4,080,000	\$ 5,712,000	\$ 6,936,000	<b>\$ 8,160,000</b>	\$ 9,792,000	\$ 11,424,000	\$ 13,056,000
Threshold % Of Target							
Target	50%	70%	85%	<b>100%</b>	120%	140%	160%
Bonus % Awarded	0%	10%	50%	<b>100%</b>	130%	170%	200%
<b>% of Target Achieved</b>	<b>50%-69%</b>	<b>70%-84%</b>	<b>85%-99%</b>	<b>100%-119%</b>	<b>120%-139%</b>	<b>140%-159%</b>	<b>160%+</b>
Revenue	\$ -	\$ 1,356	\$ 6,778	<b>\$ 13,556</b>	\$ 19,365	\$ 27,112	\$ 32,921
EBITDA	-	8,134	40,667	<b>81,334</b>	116,192	162,669	197,526
Health and Safety Permit & License Violations	-	2,033	10,167	<b>20,334</b>	20,334	20,334	20,334
	-	2,033	10,167	<b>20,334</b>	20,334	20,334	20,334
	\$ -	\$ 13,556	\$ 67,779	<b>\$ 135,558</b>	\$ 176,225	\$ 230,449	\$ 271,115

- 1) Revenue was defined as the total consolidated third party top line revenue from continuing operations as publicly reported in the Company’s financial statements. The percentage achieved was determined by comparing the actual consolidated revenue from continuing operations to the Board approved Revenue Target from continuing operations, which is \$85,000,000. The Board reserved the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA was defined as earnings before interest, taxes, depreciation, and amortization from continuing operations, excluding PF Medical. The percentage achieved was determined by comparing the actual EBITDA to the Board approved EBITDA Target, which was \$8,160,000. The Board reserved the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target was based upon the actual number of Worker’s Compensation Lost Time Accidents, as provided by the Company’s Worker’s Compensation carrier. The Corporate Controller submitted a report on a quarterly basis documenting and confirming the number of Worker’s Compensation Lost Time Accidents, supported by the AIG Worker’s Compensation Loss Report. Such claims were identified on the loss report as “indemnity claims.” The following number of Worker’s Compensation Lost Time Accidents and corresponding Performance Target Thresholds were established for the annual Incentive Compensation Plan calculation for 2015.

Worker's Compensation Claim Number	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- 4) Permits or License Violations incentive was earned/determined according to the scale set forth below: An “official notice of non-compliance” was defined as an official communication from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which resulted in a facility’s implementation of corrective action(s).

Permit and License Violations	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- 5) No performance incentive compensation was payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 70% of the EBITDA Target was achieved.

*COO MIP:*

2015 COO performance compensation was based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives during fiscal year 2015 from our continuing operations (excluding PF Medical). At achievement of 70% to 119% of the Revenue and EBITDA Targets, the potential performance compensation was payable at 5% to 50% of the total base salary, of which 60% was based on EBITDA goal, 10% on revenue goal, 15% on the number of health and safety claim incidents that occurred during fiscal year 2015, and the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occurred during the fiscal year 2015. Upon achievement of over 119% of the Revenue and EBITDA Targets, with potential performance compensation payable at over 50% to 100% of the total base salary, the amount of performance compensation payable was based on the four objectives noted above, with the payment of such performance compensation being weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components was based on our Board approved Revenue Target and EBITDA Target. The 2015 target performance incentive compensation for our COO was as follows:

Annualized Base Pay:	\$ 215,000
Performance Incentive Compensation Target (at 100% of Plan):	\$ 107,500
Total Annual Target Compensation (at 100% of Plan):	\$ 322,500

	TARGET							
Revenue Target	\$42,500,000	\$59,500,000	\$72,250,000	<b>\$85,000,000</b>	\$102,000,000	\$119,000,000	\$136,000,000	
EBITDA Target	\$ 4,080,000	\$ 5,712,000	\$ 6,936,000	<b>\$ 8,160,000</b>	\$ 9,792,000	\$ 11,424,000	\$ 13,056,000	
Threshold % Of Target								
Target	50%	70%	85%	<b>100%</b>	120%	140%	160%	
Bonus % Awarded	0%	10%	50%	<b>100%</b>	130%	170%	200%	
% of Target Achieved	<b>50%-69%</b>	<b>70%-84%</b>	<b>85%-99%</b>	<b>100%-119%</b>	<b>120%-139%</b>	<b>140%-159%</b>	<b>160%+</b>	
Revenue	\$ -	\$ 1,074	\$ 5,374	<b>\$ 10,750</b>	\$ 15,357	\$ 21,500	\$ 26,107	
EBITDA	-	6,450	32,250	<b>64,500</b>	92,143	129,000	156,643	
Health and Safety Permit & License Violations	-	1,613	8,063	<b>16,125</b>	16,125	16,125	16,125	
	\$ -	\$ 10,750	\$ 53,750	<b>\$ 107,500</b>	\$ 139,750	\$ 182,750	\$ 215,000	

- Revenue was defined as the total consolidated third party top line revenue from continuing operations as publicly reported in the Company's financial statements. The percentage achieved was determined by comparing the actual consolidated revenue from continuing operations to the Board approved Revenue Target from continuing operations, which was \$85,000,000. The Board reserved the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- EBITDA was defined as earnings before interest, taxes, depreciation, and amortization from continuing operations, excluding PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target, which was \$8,160,000. The Board reserved the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- The Health and Safety Incentive Target was based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller submitted a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the AIG Worker's Compensation Loss Report. Such claims were identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds were established for the annual Incentive Compensation Plan calculation for 2015.

Worker's Compensation Claim Number	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- Permits or License Violations incentive was earned/determined according to the scale set forth below: An "official notice of non-compliance" was defined as an official communication from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which resulted in a facility's implementation of corrective action(s).

Permit and License Violations	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- No performance incentive compensation was payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 70% of the EBITDA Target was achieved.



*CFO MIP:*

2015 CFO performance compensation was based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives during fiscal year 2015 from our continuing operations (excluding PF Medical). At achievement of 70% to 119% of the Revenue and EBITDA Targets, the potential performance compensation was payable at 5% to 50% of the total base salary, of which 60% was based on EBITDA goal, 10% on revenue goal, 15% on the number of health and safety claim incidents that occurred during fiscal year 2015, and the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occurred during the fiscal year 2015. Upon achievement of over 119% of the Revenue and EBITDA Targets, with potential performance compensation payable at over 50% to 100% of the total base salary, the amount of performance compensation payable was based on the four objectives noted above, with the payment of such performance compensation being weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components was based on our Board approved Revenue Target and EBITDA Target. The 2015 target performance incentive compensation for our CFO was as follows:

Annualized Base Pay:	\$ 214,240
Performance Incentive Compensation Target (at 100% of Plan):	\$ 107,120
<b>Total Annual Target Compensation (at 100% of Plan):</b>	<b>\$ 321,360</b>

	<b>TARGET</b>							
Revenue Target	\$42,500,000	\$59,500,000	\$72,250,000	<b>\$85,000,000</b>	\$102,000,000	\$119,000,000	\$136,000,000	
EBITDA Target	\$ 4,080,000	\$ 5,712,000	\$ 6,936,000	<b>\$ 8,160,000</b>	\$ 9,792,000	\$ 11,424,000	\$ 13,056,000	
Threshold % Of Target	50%	70%	85%	<b>100%</b>	120%	140%	160%	
Bonus % Awarded	0%	10%	50%	<b>100%</b>	130%	170%	200%	
<b>% of Target Achieved</b>	<b>50%-69%</b>	<b>70%-84%</b>	<b>85%-99%</b>	<b>100%-119%</b>	<b>120%-139%</b>	<b>140%-159%</b>	<b>160%+</b>	
Revenue	\$ -	\$ 1,071	\$ 5,356	<b>\$ 10,712</b>	\$ 15,303	\$ 21,424	\$ 26,015	
EBITDA	-	6,427	32,136	<b>64,272</b>	91,817	128,544	156,089	
Health and Safety	-	1,607	8,034	<b>16,068</b>	16,068	16,068	16,068	
Permit & License Violations	-	1,607	8,034	<b>16,068</b>	16,068	16,068	16,068	
	<b>\$ -</b>	<b>\$ 10,712</b>	<b>\$ 53,560</b>	<b>\$ 107,120</b>	<b>\$ 139,256</b>	<b>\$ 182,104</b>	<b>\$ 214,240</b>	

- Revenue was defined as the total consolidated third party top line revenue from continuing operations as publicly reported in the Company's financial statements. The percentage achieved was determined by comparing the actual consolidated revenue from continuing operations to the Board approved Revenue Target from continuing operations, which was \$85,000,000. The Board reserved the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- EBITDA was defined as earnings before interest, taxes, depreciation, and amortization from continuing operations, excluding PF Medical. The percentage achieved was determined by comparing the actual EBITDA to the Board approved EBITDA Target, which was \$8,160,000. The Board reserved the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- The Health and Safety Incentive Target was based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller submitted a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the AIG Worker's Compensation Loss Report. Such claims were identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds were established for the annual Incentive Compensation Plan calculation for 2015.

Worker's Compensation Claim Number	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- 4) Permits or License Violations incentive was earned/determined according to the scale set forth below: An “official notice of non-compliance” was defined as an official communication from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which resulted in a facility’s implementation of corrective action(s).

Permit and License Violations	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- 5) No performance incentive compensation was payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 70% of the EBITDA Target was achieved.

#### 2015 MIP Targets

As discussed above, 2015 MIPs approved for the CEO, COO, and CFO by the Compensation Committee awarded cash compensation based on achievement of performance targets which included Revenue and EBITDA Targets as approved by our Board. The Revenue Target of \$85,000,000 and EBITDA Target of \$8,160,000 set forth in the 2015 MIPs were based on our Board approved 2015 budget as adjusted for the Board’s expectation that warranted payments of MIPs. In formulating the Revenue Target of \$85,000,000, the Board considered 2014 results, current economic conditions, and forecasts for 2015 government (U.S DOE) spending. The Compensation Committee believed the performance targets were likely to be achieved, but not assured.

#### Compensation Earned Under 2015 MIPs

The following table sets forth the MIP compensation earned by the CEO, COO, and CFO for fiscal year 2015 under each MIP. We anticipate paying the compensation earned under each of the MIPs in the second quarter of 2016.

#### CEO MIP:

Target Objectives:	Performance Target Range Achieved	MIP Compensation Earned
Revenue	70%-84%	\$ 1,356
EBITDA	85%-99%	40,667
Health & Safety	160%+	20,334
Permit & License Violations	160%+	20,334
<b>Total Performance Compensation</b>		<b>\$ 82,691</b>

**COO MIP:**

Target Objectives:	Performance Target Range Achieved	MIP Compensation Earned
Revenue	70%-84%	\$ 1,075
EBITDA	85%-99%	32,250
Health & Safety	160%+	16,125
Permit & License Violations	160%+	16,125
<b>Total Performance Compensation</b>		<b>\$ 65,575</b>

**CFO MIP:**

Target Objectives:	Performance Target Range Achieved	MIP Compensation Earned
Revenue	70%-84%	\$ 1,071
EBITDA	85%-99%	32,136
Health & Safety	160%+	16,068
Permit & License Violations	160%+	16,068
<b>Total Performance Compensation</b>		<b>\$ 65,343</b>

**2016 MIPs**

On February 4, 2016, the Compensation Committee approved individual MIPs for our CEO, COO, and CFO. The MIPs are effective as of January 1, 2016. Each MIP provides guidelines for the calculation of annual cash incentive based compensation, subject to Compensation Committee oversight and modification. Each MIP awards cash compensation based on achievement of performance thresholds (as discussed below), with the amount of such compensation established as a percentage of base salary. The potential target performance compensation ranges from 5% to 100% or \$13,962 to \$279,248 of the 2016 base salary for the CEO, 5% to 100% or \$10,750 to \$215,000 of the 2016 base salary for the COO, and 5% to 100% or \$11,033 to \$220,667 of the 2016 base salary for the CFO.

Performance compensation is paid on or about 90 days after year-end, or sooner, based on finalization of our audited financial statements for 2016. If the MIP participant's employment with the Company is voluntarily or involuntarily terminated prior to a regularly scheduled MIP compensation payment date, no MIP payment will be payable for and after such period.

The Compensation Committee retains the right to modify, change or terminate each MIP and may adjust the various target amounts described below, at any time and for any reason.

The total performance compensation paid to the CEO, COO, and CFO as a group is not to exceed 50% of the Company's pre-tax net income (exclusive of PF Medical, the Company's majority-owned Polish subsidiary) prior to the calculation of performance compensation.

The following describes the principal terms of each MIP:

*CEO MIP:*

2016 CEO performance compensation is based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives during fiscal year 2016 from our continuing operations (excluding PF Medical). The Compensation Committee believes performance compensation payable under each of the 2016 MIPs as discussed herein and below should be based on achievement of EBITDA Target as this target provides better indicator of operating performance as it excludes certain non-cash items. EBITDA has certain limitations as it does not reflect all items of income or cash flows that affect the Company's financial performance under GAAP. At achievement of 70% to 119% of the Revenue and EBITDA Targets, the potential performance compensation is payable at 5% to 50% of the total base salary, of which 60% is based on EBITDA goal, 10% on revenue goal, 15% on the number of health and safety claim incidents that occur during fiscal year 2016, and the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occur during the fiscal year 2016. Upon achievement of over 119% of the Revenue and EBITDA Targets, with potential performance compensation payable at over 50% to 100% of the total base salary, the amount of total performance compensation payable is based on the four objectives noted above, with the payment of such performance compensation being weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components is based on our Board approved Revenue Target and EBITDA Target. The 2016 target performance incentive compensation for our CEO is as follows:

Annualized Base Pay:	\$ 279,248
Performance Incentive Compensation Target (at 100% of MIP):	\$ 139,624
<b>Total Annual Target Compensation (at 100% of MIP):</b>	<b>\$ 418,872</b>

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

					TARGET			
Revenue Target	<\$56,000,000	\$56,000,000	\$68,000,000	<b>\$80,000,000</b>	\$96,000,000	\$112,000,000	\$128,000,000	
EBITDA Target	<\$6,370,000	\$ 6,370,000	\$ 7,735,000	<b>\$ 9,100,000</b>	\$10,920,000	\$ 12,740,000	\$ 14,560,000	
% of Performance								
Incentive Target	0%	10%	50%	<b>100%</b>	130%	170%	200%	
<b>% of Target Achieved</b>	<b>&lt;70 %</b>	<b>70%-84%</b>	<b>85%-99%</b>	<b>100%-119%</b>	<b>120%-139%</b>	<b>140%-159%</b>	<b>160 %+</b>	
Revenue	\$ -	\$ 1,397	\$ 6,981	<b>\$ 13,962</b>	\$ 19,945	\$ 27,924	\$ 33,908	
EBITDA	-	8,377	41,887	<b>83,774</b>	119,678	167,549	203,452	
Health and Safety	-	2,094	10,472	<b>20,944</b>	20,944	20,944	20,944	
Permit & License								
Violations	-	2,094	10,472	<b>20,944</b>	20,944	20,944	20,944	
	\$ -	\$ 13,962	\$ 69,812	<b>\$ 139,624</b>	\$ 181,511	\$ 237,361	\$ 279,248	

- 1) Revenue is defined as the total consolidated third party top line revenue from continuing operations as publicly reported in the Company's financial statements. The percentage achieved is determined by comparing the actual consolidated revenue from continuing operations to the Board approved Revenue Target from continuing operations, which is \$80,000,000. The Board reserves the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA is defined as earnings before interest, taxes, depreciation, and amortization from continuing operations, excluding PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target, which is \$9,100,000. The Board reserves the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target is based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller will submit a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims will be identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds has been established for the annual Incentive Compensation Plan calculation for 2016.

Worker's Compensation Claim Number	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +



- 4) Permits or License Violations incentive is earned/determined according to the scale set forth below: An “official notice of non-compliance” is defined as an official communication from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which results in a facility’s implementation of corrective action(s).

Permit and License Violations	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- 5) No performance incentive compensation will be payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 70% of the EBITDA Target is achieved.

*COO MIP:*

2016 COO performance compensation is based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives during fiscal year 2016 from our continuing operations (excluding PF Medical). At achievement of 70% to 119% of the Revenue and EBITDA Targets, the potential performance compensation is payable at 5% to 50% of the total base salary, of which 60% is based on EBITDA goal, 10% on revenue goal, 15% on the number of health and safety claim incidents that occur during fiscal year 2016, and the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occur during the fiscal year 2016. Upon achievement of over 119% of the Revenue and EBITDA Targets, with potential performance compensation payable at over 50% to 100% of the total base salary, the amount of total performance compensation payable is based on the four objectives noted above, with the payment of such performance compensation being weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components is based on our Board approved Revenue Target and EBITDA Target. The 2016 target performance incentive compensation for our COO is as follows:

Annualized Base Pay:	\$ 215,000
Performance Incentive Compensation Target (at 100% of MIP):	\$ 107,500
Total Annual Target Compensation (at 100% of MIP):	\$ 322,500

				TARGET			
Revenue Target	<\$56,000,000	\$56,000,000	\$68,000,000	<b>\$80,000,000</b>	\$96,000,000	\$112,000,000	\$128,000,000
EBITDA Target	<\$6,370,000	\$ 6,370,000	\$ 7,735,000	<b>\$ 9,100,000</b>	\$10,920,000	\$ 12,740,000	\$ 14,560,000
% of Performance Incentive Target	0%	10%	50%	<b>100%</b>	130%	170%	200%
% of Target Achieved	<70 %	70%-84%	85%-99%	<b>100%-119%</b>	<b>120%-139%</b>	<b>140%-159%</b>	<b>160 %+</b>
Revenue	\$ -	\$ 1,074	\$ 5,374	<b>\$ 10,750</b>	\$ 15,357	\$ 21,500	\$ 26,107
EBITDA	-	6,450	32,250	<b>64,500</b>	92,143	129,000	156,643
Health and Safety	-	1,613	8,063	<b>16,125</b>	16,125	16,125	16,125
Permit & License Violations	-	1,613	8,063	<b>16,125</b>	16,125	16,125	16,125
	\$ -	\$ 10,750	\$ 53,750	<b>\$ 107,500</b>	\$ 139,750	\$ 182,750	\$ 215,000

- 1) Revenue is defined as the total consolidated third party top line revenue from continuing operations as publicly reported in the Company’s financial statements. The percentage achieved is determined by comparing the actual consolidated revenue from continuing operations to the Board approved Revenue Target from continuing operations, which is \$80,000,000. The Board reserves the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.

- 2) EBITDA is defined as earnings before interest, taxes, depreciation, and amortization from continuing operations, excluding PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target, which is \$9,100,000. The Board reserves the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target is based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller will submit a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims will be identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds has been established for the annual Incentive Compensation Plan calculation for 2016.

Worker's Compensation Claim Number	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- 4) Permits or License Violations incentive is earned/determined according to the scale set forth below: An "official notice of non-compliance" is defined as an official communication from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which results in a facility's implementation of corrective action(s).

Permit and License Violations	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

- 5) No performance incentive compensation will be payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 70% of the EBITDA Target is achieved.

*CFO MIP:*

2016 CFO performance compensation is based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives during fiscal year 2016 from our continuing operations (excluding PF Medical). At achievement of 70% to 119% of the Revenue and EBITDA Targets, the potential performance compensation is payable at 5% to 50% of the total base salary, of which 60% is based on EBITDA goal, 10% on revenue goal, 15% on the number of health and safety claim incidents that occur during fiscal year 2016, and the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occur during the fiscal year 2016. Upon achievement of over 119% of the Revenue and EBITDA Targets, with potential performance compensation payable at over 50% to 100% of the total base salary, the amount of total performance compensation payable is based on the four objectives noted above, with the payment of such performance compensation being weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components is based on our Board approved Revenue Target and EBITDA Target. The 2016 target performance incentive compensation for our CFO is as follows:

Annualized Base Pay:	\$ 220,667
Performance Incentive Compensation Target (at 100% of Plan):	\$ 110,334
Total Annual Target Compensation (at 100% of Plan):	\$ 331,001

					TARGET			
Revenue Target	<\$56,000,000	\$56,000,000	\$68,000,000	<b>\$80,000,000</b>	\$96,000,000	\$112,000,000	\$128,000,000	
EBITDA Target	<\$6,370,000	\$ 6,370,000	\$ 7,735,000	<b>\$ 9,100,000</b>	\$10,920,000	\$ 12,740,000	\$ 14,560,000	
% of Performance								
Incentive Target	0%	10%	50%	<b>100%</b>	130%	170%	200%	
% of Target								
Achieved	<70 %	70%-84%	85%-99%	<b>100%-119%</b>	120%-139%	140%-159%	160 %+	
Revenue	\$ -	\$ 1,103	\$ 5,517	<b>\$ 11,034</b>	\$ 15,762	\$ 22,067	\$ 26,795	
EBITDA	-	6,620	33,100	<b>66,200</b>	94,572	132,400	160,772	
Health and Safety	-	1,655	8,275	<b>16,550</b>	16,550	16,550	16,550	
Permit & License								
Violations	-	1,655	8,275	<b>16,550</b>	16,550	16,550	16,550	
	\$ -	\$ 11,033	\$ 55,167	<b>\$ 110,334</b>	\$ 143,434	\$ 187,567	\$ 220,667	

- 1) Revenue is defined as the total consolidated third party top line revenue from continuing operations as publicly reported in the Company's financial statements. The percentage achieved is determined by comparing the actual consolidated revenue from continuing operations to the Board approved Revenue Target from continuing operations, which is \$80,000,000. The Board reserves the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA is defined as earnings before interest, taxes, depreciation, and amortization from continuing operations, excluding PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target, which is \$9,100,000. The Board reserves the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target is based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller will submit a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims will be identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds has been established for the annual Incentive Compensation Plan calculation for 2016.

Worker's Compensation Claim Number	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

4) Permits or License Violations incentive is earned/determined according to the scale set forth below: An “official notice of non-compliance” is defined as an official communication from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which results in a facility’s implementation of corrective action(s).

Permit and License Violations	Performance Target
6	70%-84%
5	85%-99%
4	100%-119%
3	120%-139%
2	140%-159%
1	160% +

5) No performance incentive compensation will be payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 70% of the EBITDA Target is achieved.

#### **2016 MIP Targets**

As discussed above, 2016 MIPs approved for the CEO, COO, and CFO by the Compensation Committee award cash compensation based on achievement of performance targets which included Revenue and EBITDA Targets as approved by our Board. The Revenue Target of \$80,000,000 and EBITDA Target of \$9,100,000 set forth in the 2016 MIPs are based on our Board approved 2016 budget as adjusted for the Board’s expectation that warranted payments of MIPs. In formulating the Revenue Target of \$80,000,000, the Board considered 2015 results, current economic conditions, and forecasts for 2016 government (U.S DOE) spending. The Compensation Committee believed the performance targets were likely to be achieved, but not assured.

#### **Long-Term Incentive Compensation**

##### **Employee Stock Option Plans**

The 2010 Stock Option Plan (the “2010 Option Plan”) encourages participants to focus on long-term performance and provides an opportunity for executive officers and certain designated key employees to increase their stake in the Company. Stock options succeed by delivering value to the executive only when the value of our stock increases. The 2010 Option Plan authorizes the grant of Non-Qualified Stock Options (“NQSOs”) and Incentive Stock Options (“ISOs”) for the purchase of our Common Stock.

The 2010 Option Plan assists the Company to:

- enhance the link between the creation of stockholder value and long-term executive incentive compensation;
- provide an opportunity for increased equity ownership by executives; and
- maintain competitive levels of total compensation.

Stock option award levels are determined based on market data, vary among participants based on their positions with us and are granted generally at the Compensation Committee’s regularly scheduled August or September meeting. Newly hired or promoted executive officers who are eligible to receive options are generally awarded such options at the next regularly scheduled Compensation Committee meeting following their hire or promotion date.

Options are awarded with an exercise price equal to or not less than the closing price of the Company’s Common Stock on the date of the grant as reported on the NASDAQ. In certain limited circumstances, the Compensation Committee may grant options to an executive at an exercise price in excess of the closing price of the Company’s Common Stock on the grant date. In 2015, no options were granted to any employees.

Pursuant to the 2010 Stock Option plan, vesting of option awards ceases upon termination of employment and exercise right of the vested option amount ceases upon three months from termination of employment except in the case of death or retirement (subject to a six month limitation), or disability (subject to a one year limitation). Prior to the exercise of an option, the holder has no rights as a stockholder with respect to the shares subject to such option.

In the event of a “change of control” (as defined in the 2010 Stock Option Plan) 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.

#### *Accounting for Stock-Based Compensation*

We account for stock-based compensation in accordance with ASC 718, “Compensation – Stock Compensation.” ASC 718 establishes accounting standards for entity exchanges of 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. ASC 718 requires all stock-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. The Company uses the Black-Scholes option-pricing model to determine the fair-value of stock-based awards which requires subjective assumptions. Assumptions used to estimate the fair value of stock options granted include the exercise price of the award, the expected term, the expected volatility of the Company’s stock over the option’s expected term, the risk-free interest rate over the option’s expected term, and the expected annual dividend yield.

We recognize stock-based compensation expense using a straight-line amortization method over the requisite period, which is the vesting period of the stock option grant. As ASC 718 requires that stock-based compensation expense be based on options that are ultimately expected to vest, our stock-based compensation expense is reduced at an estimated forfeiture rate. Our estimated forfeiture rate is generally based on historical trends of actual forfeitures. Forfeiture rates are evaluated, and revised as necessary.

#### **Retirement and Other Benefits**

##### **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 full-time employees who have attained the age of 18 are eligible to participate in the 401(k) Plan. Eligibility is immediate upon employment but enrollment is only allowed during four quarterly open periods of January 1, April 1, July 1, and October 1. Participating employees may make annual pretax contributions to their accounts up to 100% 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. Effective June 15, 2012, we suspended our matching contribution in an effort to reduce costs in light of the economic environment. The Company commenced matching fund contribution effective January 1, 2015. In 2015, the Company contributed approximately \$303,000 in 401(k) matching funds, of which approximately \$14,000 was for our NEOs (see the Summary Compensation table in this section for 401(k) matching fund contributions made for the NEOs).

##### **Perquisites and Other Personal Benefits**

The Company provides executive officers with limited perquisites and other personal benefits (health/disability/life insurance) that the Company and the Compensation Committee believe are reasonable and consistent with its overall compensation program to better enable the Company to attract and retain superior employees for key positions. The Compensation Committee periodically reviews the levels of perquisites and other personal benefits provided to executive officers. The executive officers are provided an auto allowance.

##### **Consideration of Stockholder Say-On-Pay Advisory Vote.**

At our Annual Meeting of Stockholders held on September 17, 2015, our stockholders voted, on a non-binding, advisory basis, on the compensation of our NEOs for 2014. A substantial majority (approximately 98%) of the total votes cast on our say-on-pay proposal at that meeting approved the compensation of our NEOs for 2014 on a non-binding, advisory basis. The Compensation Committee and the Board believes that this affirms our stockholders’ support of our approach to executive compensation. The Compensation Committee expects to continue to consider the results of future stockholder say-on-pay advisory votes when making future compensation decisions for our NEOs. We will hold an advisory vote on the compensation of our NEOs at our 2016 annual meeting of stockholders.

## Compensation of Directors

Directors who are employees receive no additional compensation for serving on the Board or its committees. In 2015, we provided the following annual compensation to directors who are not employees:

- options to purchase 2,400 shares of our Common Stock with each option having a 10 year term and being fully vested after six months from grant date;
- a quarterly director fee of \$8,000;
- an additional quarterly fee of \$5,500 and \$7,500 to the Chairman of our Audit Committee and Chairman of the Board (non-employee), respectively; and
- a fee of \$1,000 for each board meeting attendance and a \$500 fee for each telephonic conference call attendance.

Each director may elect to have either 65% or 100% of such fees payable in Common Stock under the 2003 Outside Director Plan, with the balance payable in cash.

Effective June 2, 2015, Mr. John Climaco, a current director of the Company, was named the EVP of PF Medical, the Company's majority-owned Polish subsidiary. As the EVP of PF Medical, Mr. Climaco is provided an annual salary of \$150,000 from PF Medical. As a result of Mr. Climaco's employment with PF Medical, he was no longer eligible to receive compensation for this service as a director of the Company.

The table below summarizes the director compensation expenses recognized by the Company for the director option and stock awards (resulting from fees earned) for the year ended December 31, 2015. The terms of the 2003 Outside Directors Plan are further described below under "2003 Outside Directors Plan." Compensation noted below for Mr. Climaco was earned as a director of the Company prior to becoming the EVP of PF Medical.

### Director Compensation

Name	Fees Earned or Paid In Cash (\$) <sup>(1)</sup>	Stock Awards (\$) <sup>(2)</sup>	Option Awards (\$) <sup>(3)</sup>	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
John M. Climaco	6,475	16,032	—	—	—	117,000 <sup>(4)</sup>	139,507
Dr. Gary G. Kugler	12,775	31,635	6,823	—	—	—	51,233
Jack Lahav	—	46,669	6,823	—	—	—	53,492
Joe R. Reeder	3,150	43,801	6,823	—	—	—	53,774
Larry M. Shelton	23,275	57,633	6,823	—	—	—	87,731
Dr. Charles E. Young <sup>(5)</sup>	9,229	22,855	—	—	—	—	32,084
Mark A. Zwecker	20,475	50,698	6,823	—	—	—	77,996

(1) Under the 2003 Outside Directors Plan, each director elects to receive 65% or 100% of the director's fees in shares of our Common Stock. The amounts set forth above represent the portion of the director's fees paid in cash and excludes the value of the director's fee elected to be paid in Common Stock under the 2003 Outside Director Plan, which value is included under "Stock Awards."

(2) The number of shares of Common Stock comprising stock awards granted under the 2003 Outside Directors Plan is calculated based on 75% of the closing market value of the Common Stock as reported on the NASDAQ on the business day immediately preceding the date that the quarterly fee is due. Such shares are fully vested on the date of grant. The value of the stock award is based on the market value of our Common Stock at each quarter end times the number of shares issuable under the award. The amount shown is the fair value of the Common Stock on the date of the award.

- (3) Options granted under the Company's 2003 Outside Directors Plan resulting from re-election to the Board of Directors on September 17, 2015. Options are for a 10 year period with an exercise price of \$4.19 per share and are fully vested in six months from grant date. The value of the option award for each outside director is calculated based on the fair value of the option per share (\$2.84) on the date of grant times the number of options granted, which was 2,400 for each director, pursuant to ASC 718, "Compensation – Stock Compensation." No option was granted to Dr. Young as he did not stand for re-election at the Company's Annual Meeting of Stockholders held on September 17, 2015. Mr. Climaco was not eligible to receive option under the 2003 Outside Directors Plan upon re-election to the Company's Board as he became an employee of the Company upon being named the EVP of PF Medical, a majority-owned Polish subsidiary of the Company, effective June 2, 2015. The following is the aggregate number of outstanding non-qualified stock options held by the Company's directors at December 31, 2015. Dr. Centofanti, the President, CEO and a Board member of the Company has no options as of December 31, 2015 :

Name	Options Outstanding as of December 31, 2015
John M. Climaco	8,400
Dr. Gary G. Kugler	4,800
Jack Lahav	24,000
Joe R. Reeder	24,000
Larry M. Shelton	27,600
Mark A. Zwecker	24,000
<b>Total</b>	<b>112,800</b>

- (4) Reflect amount paid as a consultant pursuant to a consulting agreement dated October 17, 2014 entered into between Mr. Climaco and the Company. The agreement provides for monthly fees of \$22,000 (effective September 2014) plus reasonable expenses. The consulting agreement was terminated effective June 2, 2015, upon Mr. Climaco becoming EVP of PF Medical.
- (5) Elected not to stand for re-election at the Company's Annual Meeting of Stockholders held on September 17, 2015.

See "John Climaco" under "Certain Relationships and Related Transactions, and Director Independence" for further information on Mr. Climaco.

### 2003 Outside Directors Plan

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 2003 Outside Directors Stock Plan, as amended ("2003 Directors Plan"), each outside director is granted a 10 year option to purchase up to 6,000 shares of Common Stock on the date such director is initially elected to the Board, and receives on each re-election date an option to purchase up to another 2,400 shares of our Common Stock, with the exercise price being the fair market value of the Common Stock preceding the option grant date. No option granted under the 2003 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. As of December 31, 2015, options to purchase 163,200 shares of Common Stock are outstanding under the 2003 Directors Plan, of which 151,200 were vested as of December 31, 2015.

As a member of the Board, each director may elect to receive either 65% or 100% of the director's fee in shares of our Common Stock. The number of shares received by each director is calculated based on 75% of the fair market value of the Common Stock determined on the business day immediately preceding the date that the quarterly fee is due. The balance of each director's fee, if any, is payable in cash. In 2015, the fees earned by our outside directors totaled approximately \$345,000. Reimbursements of expenses for attending meetings of the Board are paid in cash at the time of the applicable Board meeting. As a management director, Dr. Centofanti is not eligible to participate in the 2003 Directors Plan. 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." Effective June 2, 2015, Mr. John Climaco, a current director, became ineligible to participate in the 2003 Directors Plan upon becoming the EVP of PF Medical, a majority-owned Polish subsidiary of the Company. As the EVP of PF Medical, Mr. Climaco is provided an annual salary of \$150,000 from PF Medical.

As of December 31, 2015, we have issued 430,594 shares of our Common Stock in payment of director fees since the inception of the 2003 Directors Plan.

In the event of a “change of control” (as defined in the 2003 Directors Plan), each outstanding stock option and stock award shall immediately become exercisable in full notwithstanding the vesting or exercise provisions contained in the stock option agreement.

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

### Security Ownership of Certain Beneficial Owners

The table below sets forth information as to the shares of Common Stock beneficially owned as of February 29, 2016, by each person known by us to be the beneficial owners of more than 5% of any class of our voting securities.

<b>Name of Beneficial Owner</b>	<b>Title Of Class</b>	<b>Amount and Nature of Ownership</b>	<b>Percent Of Class (1)</b>
Heartland Advisors, Inc. (2)	Common	1,789,947	15.5%

(1) The number of shares and the percentage of outstanding Common Stock shown as beneficially owned by a person are based upon 11,557,944 shares of Common Stock outstanding on February 29, 2016, and 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.

(2) This information is based on the Schedule 13G, filed with the Securities and Exchange Commission on February 5, 2016, which provides that Heartland Advisors, Inc., an investment advisor, shares voting power over 1,629,305 of such shares and shares dispositive power over all of the shares, and no sole voting or sole dispositive power over any of the shares. The address of Heartland Advisors, Inc. is 789 North Water Street, Milwaukee, WI 53202.

Capital Bank represented to us that:

- As of February 29, 2016, Capital Bank holds of record as a nominee for, and as an agent of, certain accredited investors, 977,140 shares of our Common Stock;
- All of our shares of Common Stock held in the name of Capital Bank, as agent of and nominee for its investors, that were acquired directly from us in private placement transactions, or as a result of conversions of our preferred stock or exercise of our warrants (collectively, “Private Placement Transactions”), and all of our shares acquired in Private Placement Transactions by Capital Bank were acquired for and on behalf of accredited investors;
- During 2016 and the first two months of 2016, it acquired, as agent for and nominee of, certain of its investors, shares of our Common Stock in open market transactions (“Open Market Transactions”);
- None of Capital Bank's investors beneficially own more than 4.9% of our Common Stock and to its best knowledge, as far as stocks held in accounts with Capital Bank, none of Capital Bank’s investors act together as a group or otherwise act in concert for the purpose of voting on matters subject to the vote of our stockholders or for purpose of dispositive or investment of such stock;
- Capital Bank's investors maintain full voting and dispositive power over the Common Stock beneficially owned by such investors;
- Capital Bank has neither voting nor investment power over the shares of Common Stock owned by Capital Bank, as agent for its investors;
- Capital Bank believes that it is not required to file reports under Section 16(a) of the 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; and
- Capital Bank is not the beneficial owner, as such term is defined in Rule 13d-3 of the Exchange Act, of the shares of Common Stock registered in Capital Bank’s name because (a) Capital Bank holds the Common Stock as a nominee only, (b) Capital Bank has neither voting nor investment power over such shares, and (c) Capital Bank has not nominated or sought to nominate, and does not intend to nominate in the future, any person to serve as a member of our Board.



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 February 29, 2016.

Name of Record Owner	Title Of Class	Amount and Nature of Ownership	Percent Of Class (*)
Capital Bank Grawe Gruppe	Common	977,140 <sup>(+)</sup>	8.5%

(\*) This calculation is based upon 11,557,944 shares of Common Stock outstanding on February 29, 2016, 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, which is none.

(+) This amount is the number of shares that Capital Bank has represented to us that it holds of record as nominee for, and as an agent of, certain of its accredited investors. As of the date of this report, Capital Bank has no warrants or options to acquire, as agent for certain investors, additional shares of our Common Stocks. Although Capital Bank is the record holder of the shares of Common Stock 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 and (b) has not nominated, and has not sought to nominate, and does not intend to nominate in the future, any person to serve as a member of our Board, we do not believe that Capital Bank is our affiliate. Capital Bank's address is Burgring 16, A-8010 Graz, Austria.

#### Security Ownership of Management

The following table sets forth information as to the shares of voting securities beneficially owned as of February 29, 2016, by each of our directors and NEOs and by all of our directors and NEOs 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.

Name of Beneficial Owner <sup>(2)</sup>	Amount and Nature of Beneficial Owner <sup>(1)</sup>	Percent of Class <sup>(1)</sup>
Dr. Louis F. Centofanti <sup>(3)</sup>	217,025 <sup>(3)</sup>	1.88%
John M. Climaco <sup>(4)</sup>	22,763 <sup>(4)</sup>	*
Dr. Gary Kugler <sup>(5)</sup>	30,124 <sup>(5)</sup>	*
Jack Lahav <sup>(6)</sup>	212,088 <sup>(6)</sup>	1.83%
Joe R. Reeder <sup>(7)</sup>	135,420 <sup>(7)</sup>	1.17%
Larry M. Shelton <sup>(8)</sup>	85,679 <sup>(8)</sup>	*
Mark A. Zwecker <sup>(9)</sup>	153,534 <sup>(9)</sup>	1.33%
Ben Naccarato <sup>(10)</sup>	1,000 <sup>(10)</sup>	*
John Lash <sup>(11)</sup>	16,000 <sup>(11)</sup>	*
Directors and Executive Officers as a Group (9 persons)	873,633 <sup>(12)</sup>	7.48%

\*Indicates beneficial ownership of less than one percent (1%).

(1) See footnote (1) of the table under “Security Ownership of Certain Beneficial Owners.”

(2) The business address of each person, for the purposes hereof, is c/o Perma-Fix Environmental Services, Inc., 8302 Dunwoody Place, Suite 250, Atlanta, Georgia 30350.

(3) These shares include (i) 154,225 shares held of record by Dr. Centofanti, and (iii) 62,800 shares held by Dr. Centofanti's wife. 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. Dr. Centofanti also owns 700 shares of PF Medical's Common Stock.

(4) Mr. Climaco has sole voting and investment power over these shares which include: (i) 14,363 shares of Common Stock held of record by Mr. Climaco, and (ii) options to purchase 8,400 shares, which are immediately exercisable.

(5) Dr. Kugler has sole voting and investment power over these shares which include: (i) 25,324 shares of Common Stock held of record by Dr. Kugler, and (ii) options to purchase 4,800 shares, which are immediately exercisable.

(6) Mr. Lahav has sole voting and investment power over these shares which include: (i) 188,088 shares of Common Stock held of record by Mr. Lahav, and (ii) options to purchase 24,000 shares, which are immediately exercisable.

(7) Mr. Reeder has sole voting and investment power over these shares which include: (i) 111,420 shares of Common Stock held of record by Mr. Reeder, and (ii) options to purchase 24,000 shares, which are immediately exercisable.

(8) Mr. Shelton has sole voting and investment power over these shares which include: (i) 58,079 shares of Common Stock held of record by Mr. Shelton, and (ii) options to purchase 27,600 shares, which are immediately exercisable. Mr. Shelton also owns 750 shares of PF Medical's Common Stock.

(9) Mr. Zwecker has sole voting and investment power over these shares which include: (i) 129,534 shares of Common Stock held of record by Mr. Zwecker, and (ii) options to purchase 24,000 shares, which are immediately exercisable.

(10) Mr. Naccarato has sole voting and investment power over these shares which include: 1,000 shares held of record by Mr. Naccarato. Mr. Naccarato also owns 100 shares of PF Medical's Common Stock.

(11) Mr. Lash has sole voting and investment power over these shares which include: 1,000 shares held of record by Mr. Lash, and (ii) options to purchase 15,000 shares, which are immediately exercisable.

(12) Amount includes 127,800 options, which are immediately exercisable to purchase 127,800 shares of Common Stock.

### Equity Compensation Plans

The following table sets forth information as of December 31, 2015, with respect to our equity compensation plans.

Plan Category	Equity Compensation Plan		
	Number of securities to be issued upon exercise of outstanding options warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans Approved by stockholders	218,200	\$7.65	345,206
Equity compensation plans not Approved by stockholders	—	—	—
<b>Total</b>	<b>218,200</b>	<b>\$7.65</b>	<b>345,206</b>

## ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

### Related Party Transactions

#### *Mr. David Centofanti*

Mr. David Centofanti serves as the Company's Vice President of Information Systems. For such position, he received annual compensation of \$168,000 and \$163,000 in 2015 and 2014, respectively. Mr. Centofanti is the son of our CEO, President and a Board member, Dr. Louis F. Centofanti.

#### *Mr. Robert L. Ferguson*

Mr. Robert L. Ferguson serves as an advisor to the Company's Board and is also a member of the Supervisory Board of PF Medical, a majority-owned Polish subsidiary of the Company. Mr. Ferguson previously served as a Board member for the Company from June 2007 to February 2010 and again from August 2011 to September 2012. As an advisor to the Company's Board, Mr. Ferguson is paid \$4,000 monthly plus reasonable expenses. For such services, Mr. Ferguson received compensation of approximately \$58,000 and \$56,000 for the years ended December 31, 2015 and 2014, respectively. On August 2, 2013, the Company completed a lending transaction with Messrs. Robert Ferguson and William Lampson ("collectively, the "Lenders"), whereby the Company borrowed from the Lenders the sum of \$3,000,000 pursuant to the terms of a Loan and Security Purchase Agreement and promissory note (the "Loan"). The proceeds from the Loan were used for general working capital purposes. The promissory note is unsecured, with a term of three years with interest payable at a fixed interest rate of 2.99% per annum. The promissory note provides for monthly payments of accrued interest only during the first year of the Loan with the first interest payment due September 1, 2013 and monthly payments of \$125,000 in principal plus accrued interest for the second and third year of the Loan. As consideration for the Company receiving the Loan, we issued a Warrant to each Lender to purchase up to 35,000 shares of the Company's Common Stock at an exercise price of \$2.23 per share, which was based on the closing price of the Company's Common Stock at the closing of the transaction. The Warrants are exercisable six months from August 2, 2013 and expire on August 2, 2016. As further consideration for the Loan, the Company issued an aggregate 90,000 shares of the Company's Common Stock, with each Lender receiving 45,000 shares. The 90,000 shares of Common Stock and 70,000 Common Stock purchase warrants were issued in a private placement and bear a restrictive legend against resale except in a transaction registered under the Securities Act or in a transaction exempt from registration thereunder.

#### *Mr. John Climaco*

On June 2, 2015, Mr. Climaco, a current member of the Company's Board and a member of the Strategic Advisory Committee of the Board, was named as the EVP of PF Medical, the Company's majority-owned Polish subsidiary. As EVP of PF Medical, Mr. Climaco receives an annual salary of \$150,000 and became ineligible to receive compensation for serving on the Company's Board.

On October 17, 2014, the Company's Compensation Committee and the Board, with Mr. Climaco abstaining, approved a consulting agreement with Mr. Climaco. Pursuant to the consulting agreement, Mr. Climaco was responsible to, among other things:

- review the Company's operations to restructure costs to render the Company more competitive;
- evaluate all functions, including but not limited to sales, marketing, accounting, operations, and executive management as well as cost structures for each facility;
- assist in the development of the Company's strategy opportunity and other initiatives, including but not limited to the development of the Company's medical isotope technology; and
- other assignments as determined by the Board.

Mr. Climaco was paid \$22,000 per month under the consulting agreement, beginning September 2014, until the termination of the consulting agreement effective June 2, 2015, upon Mr. Climaco's employment as the EVP of PF Medical. For his services under the consulting agreement, Mr. Climaco received approximately \$117,000 and \$107,000 in 2015 and 2014, respectively.

Mr. Climaco is also a director of Digirad Corporation, a Delaware corporation ("Digirad"), Nasdaq: DRAD. On July 24, 2015, PF Medical and Digirad, entered into a multi-year Technetium 99 ("Tc-99m") Supplier Agreement (the "Supplier Agreement") and a Series F Stock Subscription Agreement (the "Subscription Agreement"), (together, the "Digirad Agreements"). The Supplier Agreement became effective upon the completion of the Subscription Agreement. Pursuant to the terms of the Digirad Agreements, Digirad purchased, in a private placement and pursuant to Regulation S under the Securities Act, 71,429 shares of PF Medical's restricted Series F Stock for an aggregate purchase price of \$1,000,000. The 71,429 share investment made by Digirad constituted approximately 5.4% of the outstanding common shares of Perma-Fix Medical. As a result of this transaction, the Company's ownership interest in PF Medical diluted from approximately 64.0% to approximately 60.5%. The Supplier Agreement provides, among other things, that upon PF Medical's commercialization of certain Tc99m generators, Digirad will purchase agreed upon quantities of Tc-99m for its nuclear imaging operations either directly or in conjunction with its preferred nuclear pharmacy supplier and PF Medical will supply Digirad, or its preferred nuclear pharmacy supplier, with Tc-99m at a preferred pricing, subject to certain conditions.

#### *Employment Agreements*

We have an employment agreement (each dated July 10, 2014) with each of Dr. Centofanti (our President and CEO), Ben Naccarato (our CFO), and John Lash (our COO). Each employment agreement provides for annual base salaries, bonuses, and other benefits commonly found in such agreements. In addition, each employment agreement provides that in the event of termination of such officer without cause or termination by the officer for good reason (as such terms are defined in the employment agreement), the terminated officer shall receive payments of an amount equal to benefits that have accrued as of the termination but had not yet been paid, plus an amount equal to one year's base salary at the time of termination. In addition, the employment agreements provide that in the event of a change in control (as defined in the employment agreements), all outstanding stock options to purchase our Common Stock granted to, and held by, the officer covered by the employment agreement to be immediately vested and exercisable.

#### *MIPs*

The Company has an individual MIP for each of our CEO, CFO and COO for fiscal years 2015 and 2016, which awards cash compensation based on achievement of certain performance targets for each fiscal year (See Part III, Item 11 – "Executive Compensation – "2015 MIPs and Compensation Earned Under 2015 MIPs" for a description of each MIP and amount earned by each named executive under the 2015 MIPs and "2016 MIPs" for a discussion of each MIP for 2016).

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

Effective July 9, 2014, the Audit Committee of the Company's Board appointed Grant Thornton, LLP ("Grant Thornton") as the independent registered public accounting firm to audit the consolidated financial statements.

On June 25, 2014, the Audit Committee approved the dismissal of BDO USA, LLP ("BDO") as the Company's independent registered accounting firm.

The following table reflects the aggregate fees for the audit and other services provided by Grant Thornton, the Company's independent registered public accounting firm, for fiscal years 2015 and 2014:

Fee Type	2015	2014
Audit Fees <sup>(1)</sup>	\$ 340,000	347,000
Tax Fees <sup>(2)</sup>	136,000	—
Total	\$ 476,000	347,000

<sup>(1)</sup> Audit fees consist of audit work performed in connection with the annual financial statements, the reviews of unaudited quarterly financial statements, and work generally only the independent registered accounting firm can reasonable provide, such as consents and review of regulatory documents filed with the Securities and Exchange Commissions.

<sup>(2)</sup> Fees for income tax planning, filing, and consulting.

The Audit Committee of the Company's Board has considered whether Grant Thornton's provision of the services described above for the fiscal years 2015 and 2014 was compatible with maintaining its independence.

*Engagement of the Independent Auditor*

The Audit Committee approves in advance all engagements with the Company's independent accounting firm to perform audit or non-audit services for us. All services under the headings Audit Fees and Tax 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 all audits, audit-related, tax and other services, along with acceptable cost levels, to be performed by the independent accounting firm and any member of the independent accounting firm's alliance network of firms, and may revise the pre-approved services during the period based on later determinations. Pre-approved services typically include: 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 SCHEDULE**

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 Schedule

Schedules are not required, are not applicable or the information is set forth in the consolidated financial statements or notes thereto.

- (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 24, 2016  
Dr. Louis F. Centofanti  
Chief Executive Officer, President and  
Principal Executive Officer

By /s/ Ben Naccarato Date March 24, 2016  
Ben Naccarato  
Chief Financial Officer and  
Principal 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.

By /s/ Dr. Louis F. Centofanti Date March 24, 2016  
Dr. Louis F. Centofanti, Director

By /s/ John M. Climaco Date March 24, 2016  
John M. Climaco, Director

By /s/ Dr. Gary Kugler Date March 24, 2016  
Dr. Gary Kugler, Director

By /s/ Jack Lahav Date March 24, 2016  
Jack Lahav, Director

By /s/ Joe R. Reeder Date March 24, 2016  
Joe R. Reeder, Director

By /s/ Larry M. Shelton Date March 24, 2016  
Larry M. Shelton, Chairman of the Board

By /s/ Mark A. Zwecker Date March 24, 2016  
Mark A. Zwecker, Director

## EXHIBIT INDEX

<b>Exhibit No.</b>	<b>Description</b>
2.1	Stock Purchase Agreement dated July 15, 2011, by and among Perma-Fix Environmental Services, Inc., Homeland Security Capital Corporation (now known as Timios National Corporation or “TNC”), and Safety and Ecology Holdings Corporation, which is incorporated by references from Exhibit 2.1 to the Company’s Form 8-K filed on July 20, 2011.
3(i)	Restated Certificate of Incorporation, as amended, of Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 3(i) to the Company’s 2014 Form 10-K filed on March 31, 2015.
3(ii)	Amended and Restated Bylaws, as amended, of Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 3(ii) to the Company’s 2012 Form 10-K/A filed on December 12, 2013.
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	Rights Agreement dated as of May 2, 2008 between the Company and Continental Stock Transfer & Trust Company, as Rights Agent, as incorporated by reference from Exhibit 4.2 to the Company’s 2014 Form 10-K filed on March 31, 2015.
4.3	Letter Agreement dated September 29, 2008, between the Company and Continental Stock Transfer & Trust Company to correct certain subparagraph numbering on the Rights Agreement dated as of May 2, 2008 between the Company and Continental Stock Transfer & Trust Company, as Rights Agent, as incorporated by reference from Exhibit 4.3 to the Company’s 2014 Form 10-K filed on March 31, 2015.
4.4	Loan and Securities Purchase Agreement, dated August 2, 2013 between William N. Lampson, Robert L. Ferguson, and Perma-Fix Environmental Services, Inc. as incorporated by reference from Exhibit 4.4 to the Company Form 10-Q for quarter ended June 30, 2013, filed on August 8, 2013.
4.5	Promissory Note dated August 2, 2013, between William N. Lampson, Robert L. Ferguson, and Perma-Fix Environmental Services, Inc. as incorporated by reference from Exhibit 4.5 to the Company Form 10-Q for quarter ended June 30, 2013, filed on August 8, 2013.
4.6	Common Stock Purchase Warrant, dated August 2, 2013, for William N. Lampson, as incorporated by reference from Exhibit 4.6 to the Company Form 10-Q for quarter ended June 30, 2013, filed on August 8, 2013.
4.7	Common Stock Purchase Warrant, dated August 2, 2013, for Robert L. Ferguson, as incorporated by reference from Exhibit 4.7 to the Company Form 10-Q for quarter ended June 30, 2013, filed on August 8, 2013.
4.8	Amended and Restated Revolving Credit, Term Loan and Security Agreement between Perma-Fix Environmental Services, Inc. and PNC Bank, National Association (as Lender and as Agent), dated October 31, 2011, which was filed as Exhibit 99.4 to the Company’s 8-K filed on November 4, 2011.
4.9	First Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated November 7, 2012, between the Company and PNC Bank, National Association, as incorporated by reference from exhibit 4.1 to the Company’s Form 10-Q for the quarter ended September 30, 2012, filed on November 8, 2012.
4.10	Second Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement and Waiver, dated May 9, 2013, between the Company and PNC Bank, National Association, as incorporated by reference from Exhibit 4.1 to the Company’s Form 10-Q for the quarter ended March 31, 2013, filed on May 10, 2013.
4.11	Third Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated August 2, 2013, as incorporated by reference from Exhibit 4.1 to the Company’s Form 10-Q for the quarter ended June 30, 2013, filed on August 8, 2013.

- 4.12 Third Amended, Restated and Substituted Revolving Credit Note between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated August 2, 2013, as incorporated by reference from Exhibit 4.2 to the Company's Form 10-Q for the quarter ended June 30, 2013, filed on August 8, 2013.
- 4.13 Fourth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement and Waiver between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated April 14, 2014, as incorporated by reference from Exhibit 4.17 to the Company's 2013 Form 10-K.
- 4.14 Fifth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated July 25, 2014, as incorporated by reference from Exhibit 4.1 to the Company's 8-K filed on July 31, 2014.
- 4.15 Sixth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated July 28, 2014, as incorporated by reference from Exhibit 4.2 to the Company's 8-K filed on July 31, 2014.
- 4.16 Subordination Agreement dated August 2, 2013 by and among William Lampson and Robert Ferguson and PNC Bank, National Association, as incorporated by reference from Exhibit 4.3 to the Company's Form 10-Q for the quarter ended June 30, 2013, filed on August 8, 2013.
- 4.17 Seventh Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated March 24, 2016.
- 10.1 401(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.
- 10.2 2003 Outside Directors' Stock Plan of the Company, as incorporated by reference from Exhibit 10.2 to the Company's 2014 Form 10-K filed on March 31, 2015.
- 10.3 First Amendment to 2003 Outside Directors Stock Plan, as incorporated by reference from Exhibit 10.3 to the Company's 2014 Form 10-K filed on March 31, 2015.
- 10.4 Second Amendment to 2003 Outside Directors Stock Plan, as incorporated by reference from Appendix "A" to the Company's 2012 Proxy Statement dated August 6, 2012.
- 10.5 Third Amendment to 2003 Outside Directors Stock Plan, as incorporated by reference from Exhibit "B" to the Company's 2014 Proxy Statement dated August 11, 2014.
- 10.6 Consent Decree, dated December 12, 2007, between United States of America and Perma-Fix of Dayton, Inc., as incorporated by reference from Exhibit 10.7 to the Company's 2014 Form 10-K filed on March 31, 2015.
- 10.7 2010 Stock Option Plan of the Company.
- 10.8 Employment Agreement dated July 10, 2014 between Louis Centofanti, Chief Executive Officer, and Perma-Fix Environmental Services, Inc., which is incorporated by reference from Exhibit 10.1 to the Company's Form 8-K filed on July 15, 2014.
- 10.9 Employment Agreement dated July 10, 2014 between John Lash, Chief Operating Officer, and Perma-Fix Environmental Services, Inc., which is incorporated by reference from Exhibit 10.2 to the Company's Form 8-K filed on July 15, 2014.
- 10.10 Employment Agreement dated July 10, 2014 between Ben Naccarato, Chief Financial Officer, and Perma-Fix Environmental Services, Inc., which is incorporated by reference from Exhibit 10.3 to the Company's Form 8-K filed on July 15, 2014.
- 10.11 Contract and Purchase Order between United States Enrichment Corporation (now known as Centrus) and Perma-Fix Environmental Services Inc., as incorporated by reference from Exhibit 10.14 to the Company's 2014 Form 10-K filed on March 31, 2015. **CERTAIN INFORMATION WITHIN THIS EXHIBIT HAS BEEN OMITTED AS A REQUEST BY THE COMPANY FOR CONFIDENTIAL TREATMENT BY THE SECURITIES AND EXCHANGE COMMISSION UNDER THE FREEDOM OF INFORMATION ACT WAS GRANTED ON JUNE 15, 2015.**
- 10.12 Settlement and Release Agreement dated as of February 12, 2013, by and between Perma-Fix Environmental Services, Inc. and Safety & Ecology Holdings Corporation, on the one hand, and Timios National Corporation, on the other hand, as incorporated by reference from Exhibit 99.1 to the Company's 8-K filed on February 15, 2013.



10.13	Incentive Stock Option Agreement between Perma-Fix Environmental Services, Inc. and Mr. John Lash, as incorporated by reference from Exhibit 10.7 to the Company's 8-K filed on July 15, 2014.
10.14	2014 Incentive Compensation Plan for Chief Executive Officer, effective January 1, 2014, as incorporated by reference from Exhibit 10.4 to the Company's Form 8-K filed on July 15, 2014.
10.15	2014 Incentive Compensation Plan for Chief Operating Officer, effective January 1, 2014, as incorporated by reference from Exhibit 10.5 to the Company's Form 8-K filed on July 15, 2014.
10.16	2014 Incentive Compensation Plan for Chief Financial Officer, effective January 1, 2014, as incorporated by reference from Exhibit 10.6 to the Company's Form 8-K filed on July 15, 2014.
10.17	2015 Incentive Compensation Plan for Chief Executive Officer, effective January 1, 2015, as incorporated by reference from Exhibit 99.1 to the Company's Form 8-K filed on April 23, 2015.
10.18	2015 Incentive Compensation Plan for Chief Operating Officer, effective January 1, 2015, as incorporated by reference from Exhibit 99.2 to the Company's Form 8-K filed on April 23, 2015.
10.19	2015 Incentive Compensation Plan for Chief Financial Officer, effective January 1, 2015, as incorporated by reference from Exhibit 99.3 to the Company's Form 8-K filed on April 23, 2015.
10.20	2016 Incentive Compensation Plan for Chief Executive Officer, effective January 1, 2016, as incorporated by reference from Exhibit 99.1 to the Company's Form 8-K filed on February 10, 2016.
10.21	2016 Incentive Compensation Plan for Chief Operating Officer, effective January 1, 2016, as incorporated by reference from Exhibit 99.2 to the Company's Form 8-K filed on February 10, 2016.
10.22	2016 Incentive Compensation Plan for Chief Financial Officer, effective January 1, 2016, as incorporated by reference from Exhibit 99.3 to the Company's Form 8-K filed on February 10, 2016.
16.1	Letter from BDO USA, LLP to the Securities and Exchange Commission, dated June 30, 2014, as incorporated by reference from Exhibit 16.1 to the Company's 8-K filed on July 1, 2014.
21.1	List of Subsidiaries
23.1	Consent of Grant Thornton, LLP
31.1	Certification by Dr. Louis F. Centofanti, Chief Executive Officer of the Company pursuant to Rule 13a-14(a) or 15d-14(a).
31.2	Certification by Ben Naccarato, Chief Financial Officer and Chief Accounting 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.
32.2	Certification by Ben Naccarato, Chief Financial Officer and Chief Accounting Officer of the Company furnished pursuant to 18 U.S.C. Section 1350.
101.INS	XBRL Instance Document*
101.SCH	XBRL Taxonomy Extension Schema Document*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document*
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document*
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document*

---

\*Pursuant to Rule 406T of Regulation S-T, the Interactive Data File in Exhibit 101 hereto are deemed not filed or part of a registration statement or prospectus for purposes of Section 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purpose of Section 18 of the Securities Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

SEVENTH AMENDMENT TO AMENDED AND RESTATED REVOLVING CREDIT,  
TERM LOAN AND SECURITY AGREEMENT

THIS SEVENTH AMENDMENT TO AMENDED AND RESTATED REVOLVING CREDIT, TERM LOAN AND SECURITY AGREEMENT, dated as of March 24, 2016 (this "Amendment"), relating to the Credit Agreement referenced below, is by and among PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Borrower"), the lenders identified on the signature pages hereto (the "Lenders"), and PNC Bank, National Association, a national banking association, as agent for the Lenders (in such capacity, the "Agent"). Terms used herein but not otherwise defined herein shall have the meanings provided to such terms in the Credit Agreement.

## WITNESSETH

WHEREAS, a credit facility has been extended to the Borrower pursuant to the terms of that certain Amended and Restated Revolving Credit, Term Loan and Security Agreement dated as of October 31, 2011 (as amended and modified from time to time, the "Credit Agreement") among the Borrower, the Lenders identified therein, and PNC Bank, National Association, as agent for the Lenders;

WHEREAS, the Borrower has requested certain modifications to the Credit Agreement;

WHEREAS, the Required Lenders have agreed to the requested modifications on the terms and conditions set forth herein;

NOW, THEREFORE, IN CONSIDERATION of the premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Amendments. The Credit Agreement is amended as set forth below:

(a) The definitions of "Applicable Margin" and "Eurodollar Rate" in Section 1.2 are amended to read as follows:

"Applicable Margin" for (i) Revolving Advances that are Eurodollar Rate Loans, 2.75%, (ii) Revolving Advances that are Domestic Rate Loans, 1.75%, (iii) Equipment Loans and Term Loans that are Eurodollar Rate Loans, 3.25%, and (iv) Equipment Loans and Term Loans that are Domestic Rate Loans, 2.25%.

"Eurodollar Rate" shall mean for any Eurodollar Rate Loan for the then current Interest Period relating thereto the interest rate per annum (rounded upwards, if necessary, to the nearest 1/100 of 1%) determined by Agent by dividing (i) the rate which appears on the Bloomberg Page BBAM1 (or on such other substitute Bloomberg page that displays rates at which U.S. dollar deposits are offered by leading banks in the London interbank deposit market), or the rate which is quoted by another source selected by Agent which has been approved by the British Bankers' Association as an authorized information vendor for the purpose of displaying rates at which U.S. dollar deposits are offered by leading banks in the London interbank deposit market (an "Alternative Source"), at approximately 11:00 a.m., London time two (2) Business Days prior to the first day of such Interest Period (or if there shall at any time, for any reason, no longer exist a Bloomberg Page BBAM1 (or any substitute page) or any Alternative Source, a comparable replacement rate determined by Agent at such time (which determination shall be conclusive absent manifest error)) for an amount comparable to such Eurodollar Rate Loan and having a borrowing date and a maturity comparable to such Interest Period by (ii) a number equal to 1.00 minus the Reserve Percentage; provided, however, that if the Eurodollar Rate determined as provided above would be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

---

The Eurodollar Rate shall be adjusted with respect to any Eurodollar Rate Loan that is outstanding on the effective date of any change in the Reserve Percentage as of such effective date. Agent shall give prompt notice to Borrower of the Eurodollar Rate as determined or adjusted in accordance herewith, which determination shall be conclusive absent manifest error.”

(b) Section 2.1(a)(y)(a)(iii) is amended to read as follows:

“(iii) a \$500,000 availability block established from a portion of the South Georgia Insurance Proceeds, minus”.

(c) Section 2.4(a) is amended to read as follows:

“(a) Term Loan.

Subject to the terms and conditions of this Agreement, each Lender, severally and not jointly, will make a Term Loan to Borrower in the sum equal to such Lender’s Commitment Percentage of \$6,095,238.12. The Term Loan was advanced on the Closing Date and shall be, with respect to principal, payable as follows, subject to acceleration upon the occurrence of an Event of Default under this Agreement or termination of this Agreement: equal month installments of \$101,600 commencing on April 1, 2016 and continuing on the first (1st) day of each month thereafter with the remaining balance due in full on the last day of the Term. The Term Loan shall be evidenced by one or more secured promissory notes (collectively, the “Term Note”) in substantially the form attached hereto as Exhibit 2.4(a). The Term Loan may consist of Domestic Rate Loans or Eurodollar Rate Loans, or a combination thereof, as Borrower may request. In the event that Borrower desires to obtain or extend a Eurodollar Rate Loan or to convert a Domestic Rate Loan to a Eurodollar Rate Loan, Borrower shall comply with the notification requirements set forth in Sections 2.2(b) and (d) and the provisions of Sections 2.2(b) through (h) shall apply.”

(d) Section 3.4(a) is amended to read as follows:

“(a) Collateral Evaluation Fee.

Borrower shall pay Agent a collateral evaluation fee equal to \$3,125 per month commencing on April 1, 2016 and on the first day of each month thereafter during the Term. The collateral evaluation fee shall be deemed earned in full on the date when same is due and payable hereunder and shall not be subject to rebate or proration upon termination of this Agreement for any reason.”

(e) Section 7.6 is amended to read as follows:

“7.6 Capital Expenditures.

Contract for, purchase or make any expenditure or commitments for Capital Expenditures in any fiscal year in an aggregate amount in excess of \$3,000,000.”

(f) Section 13.1 is amended to read as follows:

“13.1 Term.

This Agreement, which shall inure to the benefit of and shall be binding upon the respective successors and permitted assigns of Borrower, Agent and each Lender, shall become effective on the date hereof and shall continue in full force and effect until March 24, 2021 (the “Term”) unless sooner terminated as herein provided. Borrower may terminate this Agreement at any time upon ninety (90) days’ prior written notice upon payment in full of the Obligations. In the event the Obligations are prepaid in full prior to the last day of the Term (the date of such prepayment hereinafter referred to as the “Early Termination Date”), Borrower shall pay to Agent for the benefit of Lenders an early termination fee in an amount equal to (x) one percent (1.0%) of the Maximum Loan Amount if the Early Termination Date occurs on or after March 24, 2016 to and including March 23, 2017, (y) one-half of one percent (0.50%) of the Maximum Loan Amount if the Early Termination Date occurs on or after March 24, 2017 to and including March 23, 2018, and (z) one-quarter of one percent (0.25%) of the Maximum Loan Amount if the Early Termination Date occurs on or after March 24, 2018 to and including March 23, 2019.”

(g) Exhibit 1.2(a) is deleted in its entirety and replaced by a new Exhibit 1.2(a) attached hereto and incorporated by reference.

2. Conditions Precedent. This Amendment shall be effective as of the date hereof upon satisfaction of each of the following conditions precedent:

(a) the execution of this Amendment by the Borrower, the Required Lenders and the Agent; and

(b) receipt by the Agent of an amendment fee of \$70,000.

3. Representations and Warranties. The Borrower hereby represents and warrants in connection herewith that as of the date hereof (after giving effect hereto) (i) the representations and warranties set forth in Article V of the Credit Agreement are true and correct in all material respects (except those which expressly relate to an earlier date), and (ii) no Default or Event of Default has occurred and is continuing under the Credit Agreement.

4. Acknowledgments, Affirmations and Agreements. The Borrower (i) acknowledges and consents to all of the terms and conditions of this Amendment and (ii) affirms all of its obligations under the Credit Agreement and the Other Documents.

5. Credit Agreement. Except as expressly modified hereby, all of the terms and provisions of the Credit Agreement remain in full force and effect.

6. Expenses. The Borrower agrees to pay all reasonable costs and expenses in connection with the preparation, execution and delivery of this Amendment, including the reasonable fees and expenses of the Agent's legal counsel.

7. Counterparts. This Amendment may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original. It shall not be necessary in making proof of this Amendment to produce or account for more than one such counterpart.

8. Governing Law. This Amendment shall be deemed to be a contract under, and shall for all purposes be construed in accordance with, the laws of the State of New York.

IN WITNESS WHEREOF, each of the parties hereto has caused a counterpart of this Amendment to be duly executed and delivered as of the date first above written.

BORROWER:

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By: /s/Ben Naccarato  
Name: Ben Naccarato  
Title: CFO

AGENT AND LENDER:

PNC BANK, NATIONAL ASSOCIATION,  
in its capacity as Agent and as Lender

By: /s/Alex M. Council IV  
Name: Alex M. Council  
Title: Vice President

[Letterhead of Company]

**COMPLIANCE CERTIFICATE** \_\_\_\_\_, 20\_\_

PNC Bank, National Association, as Agent  
One Piedmont Town Center  
4720 Piedmont Row Drive  
Suite 300  
Charlotte, NC 28210  
Attention: Alex Council

The undersigned, the [**Chief Executive Officer**][**President**][**Chief Financial Officer**][**Controller**] of **Perma-Fix Environmental Services, Inc.**, a Delaware corporation, gives this certificate to **PNC Bank, National Association**, as Agent (in such capacity, the "Agent"), in accordance with the requirements of **Section 9.7 and 9.8** (Annual and Quarterly Financial Statements) of that certain Revolving Credit, Term Loan and Security Agreement dated as of October 31, 2011, among the Borrower, the financial institutions which are parties thereto as Lenders, and the Agent (the "Loan Agreement").

**Capitalized terms used in this Certificate, unless otherwise defined herein, shall have the meanings ascribed to them in the Loan Agreement.**

1. Based upon my review of the financial statements of the Company for the [Fiscal Year/Quarter] ending \_\_\_\_\_, 20\_\_, copies of which are attached hereto, I hereby certify that:
  - (a) Section 6.5(a), the Tangible Adjusted Net Worth is [satisfied / not satisfied] at \$\_\_\_\_\_ when compared to the required amount of at least \$30,000,000.
  - (b) Section 6.5(b), the Fixed Charge Coverage Ratio is [satisfied / not satisfied] at \_\_\_\_\_ to 1.0 when compared to the required **1.15 to 1.0** for the four quarter period ending as of March 31, 2016 and as of the end of each fiscal quarter thereafter.
  - (c) Sections 7.4, Investments are [satisfied/not satisfied] as there are \$xx,xxx (if none, so state) outstanding.
  - (d) Sections 7.5(a), Loans are [satisfied/not satisfied] as no advances, loans or extensions of credit have been made except for extensions of trade credit in connection with the sale of Inventory in the Ordinary Course of Business and Section 7.5(b), Loans to employees in the Ordinary Course of Business in the amount of \$xx,xxx (if none, so state) are [less/more] than the allowable amount of \$1,000,000 in the aggregate.
  - (e) Sections 7.6, Capital Expenditures are [satisfied/not satisfied] as \$xx,xxx is [less/more] than the allowable amount of \$3,000,000 for any fiscal year.

- (f) Sections 7.7, Dividends and Distributions are [satisfied/not satisfied] as the payment of all dividends and distributions comply with the provisions of Section 7.7.
- (g) Sections 7.8, Create additional Indebtedness is [satisfied/not satisfied] as such additional Indebtedness complies with the provisions of Section 7.8.
- (h) Sections 7.11, Leases are [satisfied/not satisfied] as \$xx,xxx is [less/ more] when compared to the annual rental payments for all property of \$1,000,000.

- 2. No Default exists on the date hereof, other than: \_\_\_\_\_ [if none, so state]; and
- 3. No Event of Default exists on the date hereof, other than \_\_\_\_\_ [if none, so state].
- 4. As of the date hereof, if applicable, Borrower is current in all material respects in payment of all accrued rent, warehouse fees, and other charges to Persons who own or lease any premises where any of the Collateral is located, and there are no pending disputes or claims regarding Borrowers' failure to pay or delay in payment of any such rent or other charges.
- 5. Additionally, as of the date hereof, as required by Section 9.3, to the best of my knowledge, Borrower is in compliance in all material respects with all federal, state and local laws relating to environmental protection and control and occupational safety and health, or if such is not the case, specifying in all areas of material non-compliance of which such officer has actual knowledge and the proposed action Borrower will implement in order to achieve compliance in all material respects unless full compliance is otherwise required.
- 6. The financial statements attached hereto are complete and accurate in all respects and were prepared in accordance with GAAP, consistently applied, except for the absence of footnotes and subject to year end audit adjustments, and except as may be disclosed in such financial statements.

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

\_\_\_\_\_ as **[Chief Executive Officer] [President]**  
**[Chief Financial Officer] [Controller]**  
Dated \_\_\_\_\_



Spreadsheet

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

2010 STOCK OPTION PLAN

The Board of Directors of Perma-Fix Environmental Services, Inc., a Delaware corporation (the "Company"), has adopted this 2010 Stock Option Plan (the "Plan") on April 28, 2010, to be effective upon the approval of a majority of the stockholders of the Company present in person or by proxy at any regular or special meeting of the stockholder of the Company (the date of such approval being the "Effective Date"), as follows:

1. Purpose. This Plan allows selected officers, and employees, including any employee who is also a member of the Board of Directors, of the Company or any Subsidiary who bear a large measure of responsibility for the success of the Company to acquire and retain a proprietary interest in the Company and to participate in the future of the Company as stockholders. The purpose of this Plan is to advance the interests of the Company and its stockholders by enabling the Company and the Subsidiaries to offer to its officers and employees equity interests in the Company, thereby enhancing the Company's ability to attract, retain and reward such individuals, and by providing such individuals an incentive to render outstanding service to the Company and to the Company's stockholders.

2. Definitions. For purposes of the Plan, the following terms will be defined as set forth below:

- 2.1 "10% Stockholder" means an individual who owns, at the time a Stock Option is granted, shares of stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Subsidiary (computed in accordance with Section 422(b)(6) of the Code).
  - 2.2 "Act" means the Securities Act of 1933, as amended from time to time, or any successor statute or statutes thereto.
  - 2.3 "Agreement" means the agreement between the Company and the Participant setting forth the terms and conditions of a Stock Option granted under the Plan.
  - 2.4 "Board" means the Board of Directors of the Company.
  - 2.5 "Change of Control" means a change of control of the Company pursuant to paragraph 7.2 hereof.
  - 2.6 "Code" means the Internal Revenue Code of 1986, as amended from time to time, and any successor statute or statutes thereto.
  - 2.7 "Committee" has the meaning set forth in Section 3.1 of this Agreement.
  - 2.8 "Common Stock" means the Common Stock of the Company, par value \$.001 per share.
-

- 2.9 “Disability” means termination of employment of a Participant after incurring “disability” as defined in Section 22(e)(3) of the Code.
- 2.10 “Employee” means any person, including officers and directors, who is employed on a full time basis by the Company or a Subsidiary, including any full-time, salaried officer or employee who is a member of the Board.
- 2.11 “Exchange Act” means the Securities and Exchange Act of 1934, as amended from time to time, or any successor statutes thereto.
- 2.12 “Fair Market Value,” unless otherwise required by any applicable provision of the Code or any regulations issued thereunder, on any given date means the value of one share of Common Stock, determined as follows:
- (a) if the Common Stock of the Company is listed for trading on one or more national securities exchanges, the reported last sales price on such principal exchange on which such Common Stock was so traded;
  - (b) if the Common Stock of the Company is not listed for trading on a national securities exchange but is traded in the over-the-counter market, the mean of the highest and lowest bid prices for such Common Stock; or
  - (c) if the price of such Common Stock is not reported or listed as described in (a) and (b) above, then the “Fair Market Value” of such Common Stock will be determined by the Committee as of the relevant date, and the Committee will utilize any reasonable and prudent method in determining such Fair Market Value and will not be liable for any such determination made in good faith.
- 2.13 “For Cause” means the occurrence of any of the following events: (a) Participant fails after three day’s written notice to comply or refuses to comply with a reasonable directive of the Board that is consistent with applicable law; or (b) Participant materially neglects Participant's duties, is grossly negligent in the performance of those duties, or engages in gross misconduct materially injurious the Company; or (c) embezzlement, fraud or theft of Company assets by the Participant; or (d) Participant’s material breach of the Agreement granting Stock Options; or (e) Participant's indictment or conviction of a felony.
- 2.14 “Incentive Stock Option” or “ISO” means any option to purchase shares of Common Stock that is granted pursuant to this Plan and which is intended to be, and designated as, an “incentive stock option” within the meaning of Section 422 of the Code.
- 2.15 “Layoff” means any termination of service with the Company, other than termination as a result of Retirement, death, voluntary termination, or termination For Cause.

- 2.16 “Nonqualified Stock Option” means any option to purchase shares of Common Stock that is granted pursuant this Plan, which is not an Incentive Stock Option.
- 2.17 “Participant” means an eligible Employee of the Company or a Subsidiary who has been granted a Stock Option under the Plan.
- 2.18 “Retirement” means with respect to an Employee, termination of all service as an employee at or after the normal or early retirement date set forth in any policy adopted by the Company, or if no such policy has been adopted, such time as determined by the Committee.
- 2.19 “Stock Option” means any Incentive Stock Option or Nonqualified Stock Option.
- 2.20 “Subsidiary” means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if, at the time of the granting of the option, each of the corporations other than the last corporation in the unbroken chain owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the corporations in such chain.

3. Administration.

- 3.1 Committee. The Plan shall be administered by the Board, which may delegate authority to administer this Plan to the Compensation and Stock Option Committee of the Board, as such Committee is from time to time constituted. If the Board has not designated a Compensation and Stock Option Committee, then the Board may delegate the authority to administer this Plan to any committee consisting solely of at least two “non-employee directors” within the meaning of Rule 16-3 under the Exchange Act. All references in the Plan to the “Committee” shall mean the Board, the Compensation Committee, or any such other committee designated by the Board that is administering this Plan. The membership of the Committee at all times will be constituted so as to not adversely affect the compliance of the Plan with the requirements of Rule 16b-3 under the Exchange Act, to the extent it is applicable, or with the requirements of any other applicable law, rule, or regulation.
- 3.2 Committee Procedures. The Committee will select one of its members as its Chairman and will hold its meetings at such times and places as it will deem advisable. A majority of its members will constitute a quorum, and all determinations will be made by a majority of such quorum. Any determination reduced to writing and signed by a majority of the members of the Committee will be fully effective and a valid act of the Committee as if it had been made by a majority vote at a meeting duly called and held. The membership of the Committee at all times will be constituted so as to not adversely affect the compliance of the Plan with the requirements of Rule 16b-3 under the Exchange Act, to the extent it is applicable, or with the requirements of any other applicable law, rule, or regulation.

3.3 Power and Authority. The Committee will have full power and authority to do all things necessary or appropriate to administer this Plan according to its terms and provisions (excluding the power to appoint members of the Committee and to terminate, modify, or amend the Plan, except as otherwise authorized by the Board), including, but not limited to, the full power and authority to:

- award Stock Options, pursuant to the terms of this Plan, to eligible individuals described under paragraph 5 hereof;
- select the eligible individuals to whom Stock Options may from time to time be awarded under the Plan;
- determine the Incentive Stock Options, Nonqualified Stock Options, or any combination thereof, to be awarded under the Plan to one or more eligible Employees;
- determine the number of shares to be covered by each Stock Option granted under the Plan;
- determine the form and content of all Agreements;
- determine the terms and conditions not inconsistent with the terms of the Plan, of any Stock Option granted;
- determine any specified performance goals or such other factors or criteria which need to be attained for the vesting of a Stock Option granted under the Plan;
- determine the terms and conditions under which Stock Options are to operate on a tandem basis and/or in conjunction with or apart from other equity or cash awards made by the Company or any Subsidiary outside of this Plan;
- correct any defect, supply any omission, or reconcile any inconsistency in the Plan or any Stock Option or Agreement in the manner and to the extent it shall deem desirable to carry out the purposes of the Plan; and
- exercise such other powers as may be necessary or desirable to implement the provisions of this Plan and to carry out its purposes.

3.4 Interpretation of Plan. Subject to paragraphs 3.3 and 8 of the Plan, the Committee will have the authority at its discretion to (a) adopt, alter and repeal such general and special administrative rules, regulations, and practices governing this Plan as it will, from time to time, deem advisable, (b) construe and interpret the terms and provisions of this Plan and any Stock Option issued under this Plan, (c) determine and interpret the form and substance of all Agreements relating to Stock Options, and (d) otherwise supervise the administration of this Plan. Anything in this Plan to the contrary notwithstanding, no term of this Plan relating to Incentive Stock Options will be interpreted, amended or altered, nor will any discretion or authority granted under this Plan be exercised, to disqualify this Plan under Section 422 of the Code, or, without the consent of the Participant(s) affected, to disqualify any Incentive Stock Option under Section 422 of the Code. Subject to paragraphs 3.3 and 8 hereof, all decisions made by the Committee pursuant to the provisions of this Plan will be made in the Committee's sole discretion and will be final and binding upon all persons granted Stock Options pursuant to this Plan.

- 3.5 No Repricing. Subject to paragraph 10 of this Plan, the exercise price for a Stock Option may never be less than (and may not be reduced to less than) 100% of the Fair Market Value of the shares of Common Stock subject to the Stock Option on the date the Stock Option is granted. Except with the approval of the stockholders of the Company, a Stock Option may not be cancelled (a) in exchange for the grant or award of another Stock Option with a lower exercise price, or (b) in exchange for cash or another Plan award, in either event other than in connection with a Change of Control or an adjustment described in paragraph 10 and in all events subject to compliance with the applicable provisions of Code Section 409A.
- 3.6 Limitation on Liability. No member of the Board shall be liable for any action taken or determination made in good faith and in a manner reasonably believed to be in the best interests of the Company with respect to the Plan or any Stock Option granted pursuant to this Plan.
4. Shares Subject to Plan.
- 4.1 Number of Shares. The maximum number of shares of Common Stock that may be issued under this Plan will be equal 1,000,000, subject to adjustment as set forth in Section 10 of this Agreement.
- 4.2 Character of Shares. The Company may elect to satisfy its obligations to a Participant exercising a Stock Option entirely by issuing authorized and unissued shares of Common Stock to the Participant, entirely by transferring treasury shares to the Participant, or in part by issuing authorized and unissued shares and the balance by transferring treasury shares.
5. Eligibility. Incentive Stock Options may be granted only to Employees, including any Employee who is a director of the Company. Nonqualified Stock Options may be granted to Employees of the Company, including directors who are Employees of the Company.
6. Stock Options.
- 6.1 Types of Stock Options. Stock Options granted under the Plan may be of two types: (a) Incentive Stock Options and (b) Nonqualified Stock Options. Any Stock Option granted under the Plan will contain such terms, not inconsistent with this Plan, as the Committee may approve. The Committee will have the authority to grant to any eligible Employee either Incentive Stock Options or Nonqualified Stock Options, or both types of Stock Options. To the extent that any Stock Option (or portion thereof) intended to be an Incentive Stock Option does not qualify for any reason as an Incentive Stock Option, it will constitute a separate Nonqualified Stock Option. The Company shall have no liability to an Employee, or any other party, if a Stock Option (or any part thereof) which is intended to be an Incentive Stock Option is not an Incentive Stock Option. Stock Options will be granted for no consideration other than services to the Company or a Subsidiary.

6.2 Exercise Price.

- Not a 10% Stockholder. The exercise price of any Incentive Stock Option granted under this Plan to an individual who is not a 10% Stockholder at the time the Incentive Stock Option is granted and the exercise price of any Nonqualified Stock Option granted under this Plan will be not less than the Fair Market Value of the shares of Common Stock subject to the Stock Option on the date the Stock Option is granted.
- 10% Stockholder. The exercise price of any Incentive Stock Option granted under the Plan to an individual who is a 10% Stockholder at the time the Stock Option is granted will be not less than 110% of the Fair Market Value of the shares of Common Stock subject to the Incentive Stock Option on the date the Incentive Stock Option is granted.

6.3 Option Term. The term of each Stock Option will be fixed by the Committee, but no Stock Option will be exercisable more than 10 years after the date on which the Stock Option is granted or, in the case of an Incentive Stock Option granted to a 10% Stockholder, five years after the date on which the Incentive Stock Option is granted.

6.4 Exercise of Nonqualified Stock Options. Nonqualified Stock Options will be exercisable at such time or times and subject to such terms and conditions as will be determined by the Committee, except as otherwise provided in this Plan.

6.5 Exercise of Incentive Stock Options.

- By an Employee. No Incentive Stock Option granted under this Plan will be exercisable after the expiration of ten years from the date such ISO is granted, except that no ISO granted to a person who is a 10% Stockholder will be exercisable after the expiration of five years from the date such ISO is granted. Unless such requirements are waived by the Committee, the Participant, while still in the employment of the Company or any Subsidiary, may exercise the ISO as set forth in the applicable Agreement; provided that the terms of the Agreement are consistent with the terms of this Plan.
- Termination of Employment. No Participant may exercise an ISO after the Participant is no longer an Employee, except (a) if a Participant ceases to be an Employee on account of a Disability, the Participant may exercise the ISO within 12 months after the date on which the Participant ceased to be an Employee; (b) if a Participant ceases to be an Employee on account of Retirement, the former employee may exercise the ISO within six months after the date on which the Participant retired; and (c) if a Participant ceases to be an Employee for any other reason (other than death), the Participant may exercise the ISO within three months after termination of employment. In each case, the ISO may be exercised only for the number of shares for which the Participant could have exercised at the time the Participant ceased to be an Employee.

- In Case of Death. If any Participant who was granted an ISO dies prior to the termination of such ISO, such ISO may be exercised within six months after the death by the personal representative or executor of the estate of the Participant, or by a person who acquired the right to exercise such ISO by bequest, inheritance, or by reason of the death of such Participant, provided that (a) such Participant died while an employee of the Company or a Subsidiary or (b) such Participant had ceased to be an Employee on account of a Disability or died within three months after the date on which he ceased to be an employee. The ISO may be exercised only as to the number of shares exercisable by the Participant as of the date of death.
- 6.6 Termination of Options. A Stock Option granted under this Plan will be considered terminated, in whole or in part, to the extent that it can no longer be exercised for shares originally subject to it, provided that a Stock Option will be considered terminated at an earlier date upon surrender for cancellation by the Participant to whom such Stock Option was granted.
- 6.7 For Cause Termination. If a Participant's employment or service relationship with the Company or any Affiliate shall be terminated For Cause as defined in paragraph 2.13 hereof, the Committee may, in its sole discretion, immediately terminate such Participant's right to any further vesting or exercisability with respect to any Stock Option in its entirety. The Committee shall have the power to determine whether the Participant has been terminated For Cause and the date upon which such termination For Cause occurred. Any such determination shall be final, conclusive and binding upon the Participant; provided, however, that for any Participant who is an "executive officer" for purposes of Section 16 of the Exchange Act, such determination shall be subject to the approval of the Board. If the Committee reasonably determines that a Participant has committed or may have committed any act which could constitute the basis for a termination of such Participant's employment or service relationship For Cause, the Committee may suspend the Participant's rights to exercise pending a determination by Board whether an act has been committed which could constitute the basis for a termination For Cause as provided in this paragraph 6.7.
- 6.8 Exercise. Subject to such terms and conditions as shall be specified in the applicable Agreement, Stock Options granted under this Plan may be exercised as provided in the Agreement, in whole or in part, at any time during the term of the Stock Option, by giving written notice of such exercise to the Company identifying the Stock Option being exercised and specifying the number of shares then being purchased. Such notice will be accompanied by payment in full of the exercise price and applicable withholding taxes. A partial exercise of a Stock Option will not affect the right to exercise the Stock Option from time to time in accordance with this Plan as to the remaining shares of Common Stock subject to the Stock Option.



- 6.9 Payment of Exercise Price. Subject to the terms of the Agreement with respect to the Stock Option exercised, payment of the exercise price of a Stock Option will consist entirely of:
- (a) cash or wire transfer;
  - (b) certified check or bank check;
  - (c) other shares of Common Stock owned by the Participant for at least six months prior to the date of exercise, provided such shares have a Fair Market Value on the date of exercise of the Stock Option equal to the aggregate exercise price for the Common Stock being purchased;
  - (d) by requesting the Company to withhold such number of Shares then issuable upon exercise of the Option that have an aggregate Fair Market Value equal to the exercise price for the Option being exercised; or
  - (e) by a combination of the methods described above.

The Company will not be required to deliver certificates for shares of Common Stock with respect to which a Stock Option is exercised until the Company has confirmed the receipt of good and valuable funds, shares of Common Stock, or a combination thereof, as applicable, in payment of the exercise price. A partial exercise of a Stock Option will not affect the right to exercise the Stock Option from time to time in accordance with this Plan as to the remaining shares of Common Stock subject to the Stock Option.

- 6.10 Issuance of Shares. As soon as reasonably practicable after its receipt of notice of exercise and payment in full of the exercise price, the Company will cause one or more certificates for the shares so purchased to be delivered to the Participant or the Participant's beneficiary or estate, as the case may be. No Participant, beneficiary, or estate will have any of the rights of a stockholder with reference to shares of Common Stock subject to a Stock Option until after the Stock Option has been duly exercised and certificates representing the shares of Common Stock so purchased pursuant to the Stock Option have been delivered to the Participant, the Participant's beneficiary or Participant's estate.
- 6.11 \$100,000 Per Year Limitation. To the extent that the aggregate Fair Market Value of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by a Participant during any calendar year (under all of the Company's plans) exceeds \$100,000, such excess Incentive Stock Options will be treated as Nonqualified Stock Options for purposes of Section 422 of the Code.

7. Acceleration.

7.1 Acceleration Upon Change of Control. Unless the award Agreement provides otherwise or unless the Participant waives the application of this paragraph 7.1 prior to a Change of Control (as hereinafter defined), each outstanding Stock Option granted under the Plan will immediately become exercisable in full notwithstanding the vesting or exercise provisions contained in the Agreement immediately prior to a Change of Control.

7.2 Change of Control Defined. A “Change of Control” will be deemed to have occurred upon any of the following events:

- The consummation of any merger, reverse stock split, recapitalization or other business combination of the Company, with or into another corporation or other entity, or an acquisition of securities or assets by the Company, pursuant to which the Company is not the continuing or surviving corporation or pursuant to which shares of Common Stock would be converted into cash, securities or other property, other than a transaction in which the majority of the holders of Common Stock immediately prior to such transaction will own at least 50% of the total voting power of the then-outstanding securities of the surviving corporation immediately after such transaction; or
- A transaction in which any person (as such term is defined in Sections 13(d)(3) and 14(d)(2) of the Exchange Act), corporation or other entity (other than the Company, or any profit-sharing, employee ownership or other employee benefit plan sponsored by the Company or any Subsidiary, or any trustee of or fiduciary with respect to any such plan when acting in such capacity, or any group comprised solely of such entities): (a) will purchase any Common Stock (or securities convertible into Common Stock) for cash, securities or any other consideration pursuant to a tender offer or exchange offer, without the prior consent of the Board, or (b) will become the “beneficial owner” (as such term is defined in Rule 13d-3 under the Exchange Act), directly or indirectly (in one transaction or a series of transactions), of securities of the Company representing 50% or more of the total voting power of the then-outstanding securities of the Company ordinarily (and apart from the rights accruing under special circumstances) having the right to vote in the election of directors (calculated as provided in Rule 13d-3(d) in the case of rights to acquire the Company’s securities); or
- If, during any period of two consecutive years, individuals who at the beginning of such period constituted the entire Board and any new director whose election by the Board, or nomination for election by the Company’s stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election by the stockholders was previously so approved, cease for any reason to constitute a majority thereof; or

- Upon a complete liquidation or dissolution of the Company.

7.3 General Waiver by Board. The Committee may, after the grant of a Stock Option, accelerate the vesting of all or any part of any Stock Option, and/or waive any limitations or restrictions, if any, for all or any part of a Stock Option.

8. Amendments and Termination.

8.1 Amendments to Plan; Termination. The Board may at any time, and from time to time, amend any of the provisions of the Plan, and may at any time suspend or terminate the Plan; provided, however, that no such amendment will be effective unless and until it has been duly approved by the stockholders of the outstanding shares of Common Stock if (a) such amendment materially increases the benefits accruing to participants under this Plan; (b) such amendment increases the number of securities which may be issued under this Plan (except as provided by paragraph 10 of this Plan); (c) such amendment materially modifies the requirements as to eligibility for participation in this Plan; or, (d) the failure to obtain such approval would adversely affect the compliance of the Plan with the requirements of Rule 16b-3 under the Exchange Act, or with the requirements of any other applicable law, rule or regulation.

8.2 Amendments to Stock Options. The Board may amend the terms of any Stock Option granted under the Plan; provided, however, (a) that subject to paragraph 10.2 hereof, no such amendment may be made by the Board which in any material respect impairs the rights of the Participant without the Holder's consent. provided the amended terms are consistent with the Plan, and (b) the terms of such amendment are consistent with the Plan.

9. Term of Plan. The Plan will be effective as of the Effective Date. Any Stock Options granted under the Plan prior to such approval will be effective upon, and subject to, approval of the Plan by the Company's stockholders (and no Stock Options will vest or otherwise become free of restrictions prior to such approval). No Stock Options will be granted pursuant to the Plan on or after the 10th anniversary of the Effective Date, but Stock Options granted prior to such 10th anniversary may extend beyond that date. The Plan will terminate after the 10<sup>th</sup> anniversary of the Effective Date or if later, at such time as all Stock Options granted under the Plan are no longer outstanding.

10. Adjustment Upon Change of Shares.

10.1 Stock Splits, etc. Subject to any required action by the stockholders of the Company, the number of shares of Common Stock for which Stock Options may thereafter be granted, and the number of shares of Common Stock then subject to Stock Options previously granted, and the price per share payable upon exercise of such Stock Option will be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock of the Company resulting from a subdivision or consolidation of shares of Common Stock or the payment of a stock dividend (but only on the Common Stock) or any other increase or decrease in the number of shares of Common Stock effected without receipt of consideration by the Company.

- 10.2 Merger; Reorganization. If the Company is reorganized or consolidated or merged with another corporation, in which the Company is the non-surviving corporation, a Participant of an outstanding Stock Option granted under this Plan will be entitled (subject to the provisions of this paragraph 10) to receive options covering shares of such reorganized, consolidated or merged corporation in the same proportion as granted to Participant prior to such reorganization, consolidation or merger at an equivalent exercise price, and subject to the same terms and conditions as this Plan. For purposes of the preceding sentence, the excess of the aggregate Fair Market Value of shares subject to the option immediately after the reorganization, consolidation or merger over the aggregate exercise price of such shares will not be more than the excess of the aggregate Fair Market Value of all shares of Common Stock subject to the Stock Option immediately before such reorganization, consolidation or merger over the aggregate exercise price of such shares of Common Stock, and the new Stock Option or assumption of the old Stock Option by any surviving corporation will not give the Participant additional benefits which he did not have under the old Stock Option.
- 10.3 Determination of Committee. To the extent that the foregoing adjustments relate to the shares of Common Stock of the Company, such adjustments will be made by the Committee, whose determination in that respect will be final, binding and conclusive, provided that each Incentive Stock Option granted pursuant to this Plan will not be adjusted in a manner that causes the Incentive Stock Option to fail to continue to qualify as an incentive stock option within the meaning of Section 422 of the Code.
- 10.4 No Rights. Except as expressly provided in this paragraph 10, the Participant will have no rights by reason of any subdivision or consolidation of shares of stock of any class or the payment of any stock dividend or any other increase or decrease in the number of shares of stock of any class or by reason of any dissolution, liquidation, merger, consolidation, reorganization or spin-off of assets or stock of another corporation, and any issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, will not affect, and no adjustment by reason thereof will be made with respect to, the number or price of shares of Common Stock subject to Stock Options granted under this Plan.
- 10.5 Authority of Company. The grant of a Stock Option pursuant to this Plan will not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure or to merge or to consolidate or to dissolve, liquidate or sell, or transfer all or any part of its business or assets.

11. General Provisions.

- 11.1 Code Section 409A. To the extent applicable, the Plan and each Agreement shall be interpreted and construed in compliance with Section 409A of the Code and Treasury Department regulations and other interpretive guidance issued thereunder. Notwithstanding the foregoing, the Company shall not be required to assume any increased economic burden in connection therewith. Although the Company intends to administer the Plan so that it will comply with the requirements of Section 409A of the Code, the Company does not represent or warrant that the Plan will comply with Section 409A of the Code or any other provision of federal, state, local, or non-United States law. Neither the Company nor any of its Subsidiaries, nor its or their respective directors, officers, employees or advisers, shall be liable to any Participant (or any other individual claiming a benefit through the Participant) for any tax, interest, or penalties the Participant might owe as a result of participation in the Plan.
- 11.2 Investment Representations. The Committee may require each person acquiring shares of Common Stock pursuant to a Stock Option under this Plan to represent to and agree with the Company in writing that, among other things, the Participant is acquiring the shares for investment purposes only without a view to distribution thereof.
- 11.3 Designation of Beneficiary. Notwithstanding any provisions in this Plan to the contrary, the Committee may provide in the terms of an Agreement that the Participant shall have the right to designate a beneficiary or beneficiaries who shall be entitled to any rights or other benefits specified under a Stock Option following the Participant's death. During the lifetime of a Participant, a Stock Option shall be exercised only by such Participant or such Participant's guardian or legal representative. In the event of a Participant's death, an Stock Option may, to the extent permitted by the Agreement, be exercised by the Participant's beneficiary as designated by the Participant in the manner prescribed by the Committee or, in the absence of an authorized beneficiary designation, by the legatee of such Stock Option under the Participant's will or by the Participant's estate in accordance with the Participant's will or the laws of descent and distribution, in each case in the same manner and to the same extent that such Stock Option was exercisable by the Participant on the date of the Participant's death.
- 11.4 Additional Incentive Arrangements. Nothing contained in this Plan will prevent the Board from adopting such other or additional incentive arrangements as it may deem desirable, including, but not limited to, the granting of Stock Options and the awarding of stock and cash otherwise than under this Plan. Such arrangements may be either generally applicable or applicable only in specific cases.

- 11.5 No Right of Employment. Nothing contained in this Plan or in any Stock Option hereunder will be deemed to confer upon any employee of the Company or any Subsidiary any right to continued employment with the Company or any Subsidiary, nor will it interfere in any way with the right of the Company or any Subsidiary to terminate the employment of any of its employees at any time.
- 11.6 Withholding Taxes. Not later than the date as of which an amount first becomes includible in the gross income of the Participant for federal income tax purposes with respect to any award under the Plan, the Participant will pay to the Company, or make arrangements satisfactory to the Company regarding the payment of, any federal, state and local taxes of any kind required by law to be withheld or paid with respect to such amount. The obligations of the Company under this Plan will be conditional upon such payment or arrangements and the Company will, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the Participant from the Company.
- 11.7 Governing Law. This Plan and all awards made and actions taken thereunder will be governed by and construed in accordance with the laws of the State of Delaware (without regard to choice of law provisions).
- 11.8 Other Benefit Plans. Any award granted under this Plan will not be deemed compensation for purposes of computing benefits under any retirement plan of the Company or any Subsidiary and will not affect any benefits under any other benefit plan now or subsequently in effect under which the availability or amount of benefits is related to the level of compensation (unless required by specific reference in any such other plan to awards under this Plan).
- 11.9 Employee Status. The Committee may decide in each case to what extent leaves of absence for government or military service, illness, temporary disability, or other reasons, will not interrupt continuous employment. Any Stock Options granted under this Plan will not be affected by any change of employment, so long as the Participant continues to be an Employee of the Company or any Subsidiary.
- 11.10 Restrictions on Transfer. A Stock Option may not be transferred except by will or by the laws of descent and distribution, and may not be alienated, sold, assigned, hypothecated, pledged, exchanged, transferred, encumbered or charged, and any attempt to alienate, sell, assign, hypothecate, pledge, exchange, transfer, encumber or charge the same will be void. No right or benefit hereunder will in any manner be liable for or subject to the debts, contracts, liabilities or torts of the person entitled to such benefit. Unless otherwise provided in this Plan or the Agreement, any Stock Option granted under this Plan is only exercisable during the lifetime of the Participant by the Participant or by his guardian or legal representative.
- 11.11 Applicable Laws. The obligations of the Company with respect to all Stock Options under this Plan will be subject to (a) all applicable laws, rules and regulations, including, without limitation, the requirements of all federal securities laws, rules and regulations and state securities and blue sky laws, rules and regulations, and such approvals by any governmental agencies as may be required, including, without limitation, the effectiveness of a registration statement under the Securities Act, and (b) the rules and regulations of any national securities exchange on which the Common Stock may be listed or the Nasdaq if the Common Stock is designated for quotation thereon.

- 11.12 Conflicts. If any of the terms or provisions of the Plan conflict with the requirements of Rule 16b-3 under the Exchange Act, or with the requirements of any other applicable law, rule or regulation, and/or with respect to Incentive Stock Options, Section 422 of the Code, then such terms or provisions will be deemed inoperative to the extent they so conflict with the requirements of said Rule 16b-3, and/or with respect to Incentive Stock Options, Section 422 of the Code. With respect to Incentive Stock Options, if this Plan does not contain any provision required to be included herein under Section 422 of the Code, such provision will be deemed to be incorporated herein with the same force and effect as if such provision had been set out at length herein.
- 11.13 Written Agreements. Each Stock Option granted under this Plan will be evidenced by, and will be subject to the terms of the Agreement approved by the Committee and executed by the Company and the Participant. The Committee may terminate any award made under this Plan if the Agreement relating thereto is not executed and returned to the Company within 30 days after the Agreement has been delivered to the Participant for his or her execution.
- 11.14 Indemnification of Committee. In addition to such other rights of indemnification as they may have as directors or as members of the Committee, the members of the Committee will be indemnified by the Company against the reasonable expenses, including attorneys' fees actually and necessarily incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal therein, to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan or any award granted thereunder, and against all amounts paid by them in settlement thereof (provided such settlement is approved by independent legal counsel selected by the Company) or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except in relation to matters as to which it will be adjudged in such action, suit or proceeding that such Committee member is liable for negligence or misconduct in the performance of his duties; provided that within 60 days after institution of any such action, suit or proceeding a Committee member shall in writing offer the Company the opportunity, at its own expense, to handle and defend the same.
- 11.15 Common Stock Certificates. All certificates for shares of Common Stock delivered under this Plan will be subject to such stop-transfer orders and other restrictions as the Committee may deem advisable under the rules, regulations, and other requirements of any stock exchange upon which the Common Stock is then listed, any applicable federal or state securities law and any applicable corporate law, and the Committee may cause a legend or legends to be put on any such certificates to make appropriate reference to such restrictions.

- 11.16 Unfunded Status of Plan. This Plan is intended to constitute an “unfunded” plan for incentive and deferred compensation. With respect to any payments not yet made to a Participant by the Company, nothing contained herein will give any such Participant any rights that are greater than those of a general creditor of the Company.
- 11.17 Liability of the Company. Neither the Company, its directors, officers or employees or the Committee, nor any Subsidiary which is in existence or hereafter comes into existence, shall be liable to any Participant or other person if it is determined for any reason by the Internal Revenue Service or any court having jurisdiction that any Incentive Stock Option granted hereunder does not qualify for tax treatment as an Incentive Stock Option under Section 422 of the Code.



## EXHIBIT 21.1

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

#### **Treatment**

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 subsidiary of the Company. The Company owns all of the issued voting Common Stock. M&EC has issued non-voting preferred stock owned by third parties.

Perma-Fix of Northwest Richland, Inc. ("PFNWR"), a Washington Corporation, is a 100% owned subsidiary of the Company.

Perma-Fix Northwest, Inc. ("PFNW"), a Washington Corporation, is a 100% owned subsidiary of the Company.

#### **Services**

Safety and Ecology Corporation ("SEC"), a Nevada corporation, is a 100% owned subsidiary of the Company.

Safety and Ecology Radcon Alliance, LLC ("SECRA"), a Nevada corporation, is a 75% owned subsidiary of the Company.

Perma-Fix Environmental Services UK Limited, a United Kingdom corporation, is a 100% owned subsidiary of the Company.

Safety and Ecology Holdings Corporation ("SEHC"), a Nevada corporation, is a 100% owned subsidiary of the Company.

Safety and Ecology Federal Services Corporation, a Nevada corporation, is a 100% owned subsidiary of the Company.

Perma-Fix of Canada, a Canadian corporation, is a 100% owned subsidiary of the Company.

Perma-Fix Medical S.A, a Polish Corporation, is a [majority] owned subsidiary of the Company.

Perma-Fix Medical Corporation, a Delaware corporation, is a 100% owned subsidiary of Perma-Fix Medical, S.A.

#### **Discontinued Operations**

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 Memphis, Inc. ("PFM"), a Tennessee 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 Orlando, Inc. ("PFO"), a Florida 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 Maryland Corporation, is a 100% owned subsidiary of the Company.

EXHIBIT 23.1

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We have issued our report dated March 24, 2016, with respect to the consolidated financial statements included in the Annual Report of Perma-Fix Environmental Services, Inc. on Form 10-K for the year ended December 31, 2015. We consent to the incorporation by reference of said report in the Registration Statements of Perma-Fix Environmental Services, Inc. on Forms S-3 (File No. 333-158472, File No. 333-115061, File No. 33-85118, File No. 333-14513, File No. 333-43149, File No. 333-70676, and File No. 333-87437) and Forms S-8 (File No. 333-153086, File No. 333-124668, File No. 333-110995, File No. 333-17899, File No. 333-25835, File No. 333-76024 and File No. 333-203137).

/s/ GRANT THORNTON LLP  
Atlanta, Georgia  
March 24, 2016

CERTIFICATIONS

I, Louis F. Centofanti, certify that:

1. I have reviewed this annual report on Form 10-K of Perma-Fix Environmental Services, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of the internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 24, 2016

/s/ Louis F. Centofanti  
Louis F. Centofanti  
Chief Executive Officer, President  
and Principal Executive Officer

CERTIFICATIONS

I, Ben Naccarato, certify that:

1. I have reviewed this annual report on Form 10-K of Perma-Fix Environmental Services, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of the internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 24, 2016

/s/ Ben Naccarato  
Chief Financial Officer and  
Principal Financial Officer

**EXHIBIT 32.1**

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO SECTION 906  
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Perma-Fix Environmental Services, Inc. ("PESI") on Form 10-K for the year ended December 31, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Form 10-K"), I, Dr. Louis F. Centofanti, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Form 10-K fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §78m or §78o(d)); and

(2) The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 24, 2016

/s/ Louis F. Centofanti

Dr. Louis F. Centofanti

Chief Executive Officer, President and

Principal Executive Officer

This certification is furnished to the Securities and Exchange Commission solely for purpose of 18 U.S.C. §1350 subject to the knowledge standard contained therein, and not for any other purpose.

**EXHIBIT 32.2**

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO SECTION 906  
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Perma-Fix Environmental Services, Inc. ("PESI") on Form 10-K for the year ended December 31, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Form 10-K"), I, Ben Naccarato, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Form 10-K fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. §78m or §78o(d)); and
- (2) The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 24, 2016

/s/ Ben Naccarato

Ben Naccarato

Chief Financial Officer and Principal Financial Officer

This certification is furnished to the Securities and Exchange Commission solely for purpose of 18 U.S.C. §1350 subject to the knowledge standard contained therein, and not for any other purpose.