

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED]

For the fiscal year ended: December 31, 2008

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED]

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 001-33059

**Fuel Tech, Inc.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of incorporation of organization)

20-5657551  
(I.R.S. Employer Identification Number)

Fuel Tech, Inc.  
27601 Bella Vista Parkway  
Warrenville, IL 60555-1617  
630-845-4500

(Address and telephone number of principal executive offices)

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

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

Common Stock \$0.01 par value per share  
(Title of Class)

The NASDAQ Stock Market, Inc  
(Name of Exchange on Which Registered)

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

Yes  No

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

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: (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  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, non-accelerated filer or a smaller reporting company (as defined in rule 12b-2 under the Securities Exchange Act of 1934).

Large Accelerated Filer  Accelerated Filer   
Non-accelerated Filer (Do not check if a smaller reporting company)  Smaller reporting company

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

Yes  No

The aggregate market value of the voting stock held by non-affiliates of the registrant based on the average bid and asked prices of June 30, 2008 was \$331,257,000. The aggregate market value of the voting stock held by non-affiliates of the registrant based on the average bid and asked prices of February 10, 2008 was \$196,181,000.

Indicate number of shares outstanding of each of the registered classes of Common Stock at February 10, 2009: 24,110,967 shares of Common Stock, \$0.01 par value.

Documents incorporated by reference:

Certain portions of the Proxy Statement for the annual meeting of stockholders to be held in 2009 are incorporated by reference in Parts II, III, and IV hereof.

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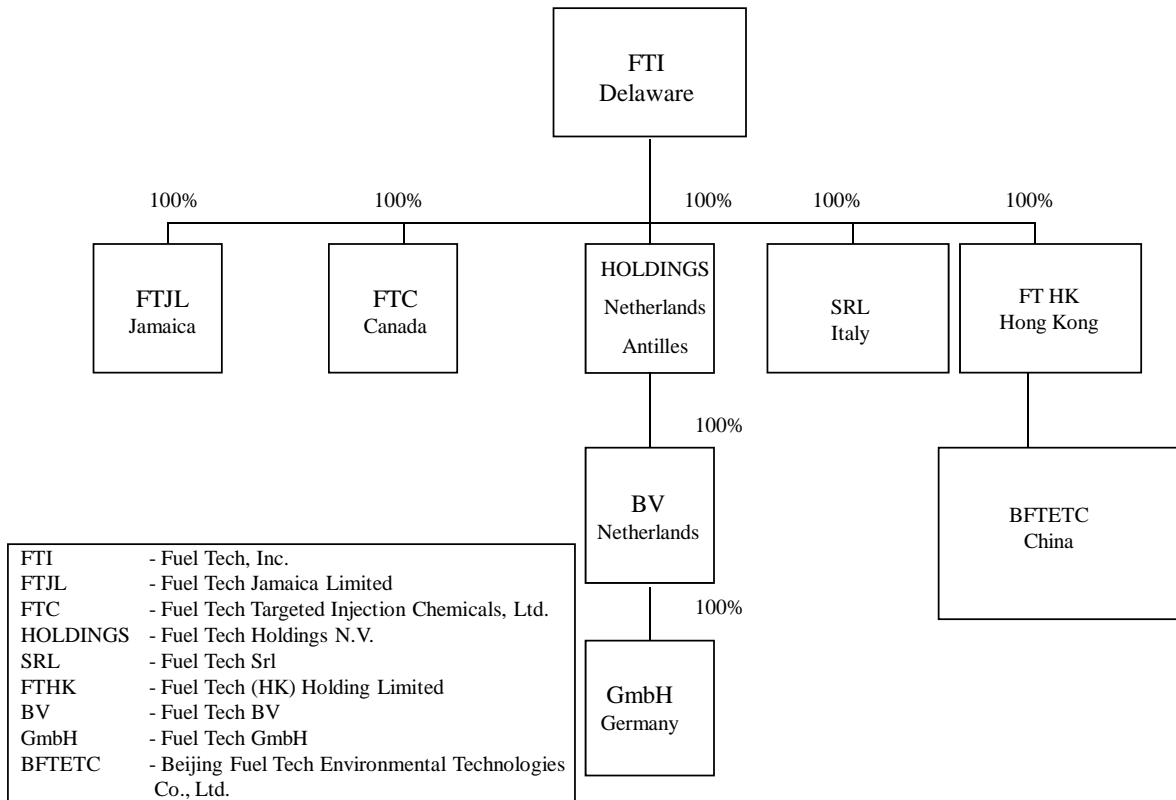
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## TABLE OF DEFINED TERMS

<b><u>Term</u></b>	<b><u>Definition</u></b>
ABC	American Bailey Corporation
AIG	Ammonia Injection Grid
CAAA	Clean Air Act Amendments of 1990
CAIR	Clean Air Interstate Rule
CAVR	Clean Air Visibility Rule
CDT	Clean Diesel Technologies, Inc.
CFD	Computational Fluid Dynamics
Common Shares	Shares of the Common Stock of Fuel Tech
Common Stock	Common Stock of Fuel Tech
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
FUEL CHEM <sup>®</sup>	A trademark used to describe Fuel Tech's fuel and flue gas treatment processes, including its TIFI <sup>™</sup> Targeted In-Furnace Injection <sup>™</sup> technology to control slagging, fouling, corrosion and a variety of sulfur trioxide-related issues.
GSG	Graduated Straightening Grid
Investors	The purchasers of Fuel Tech securities pursuant to a Securities Purchase Agreement as of March 23, 1998.
Loan Notes	Nil-coupon, non-redeemable convertible unsecured loan notes of Fuel Tech
NO <sub>x</sub>	Oxides of nitrogen
NO <sub>x</sub> OUT CASCADE <sup>®</sup>	A trademark used to describe Fuel Tech's combination of NO <sub>x</sub> OUT and SCR.
NO <sub>x</sub> OUT <sup>®</sup> Process	A trademark used to describe Fuel Tech's SNCR process for the reduction of NO <sub>x</sub> .
NO <sub>x</sub> OUT-SCR <sup>®</sup>	A trademark used to describe Fuel Tech's direct injection of urea as a catalyst reagent.
NO <sub>x</sub> OUT ULTRA <sup>®</sup>	A trademark used to describe Fuel Tech's process for generating ammonia for use as SCR reagent.
Rich Reagent Injection Technology (RRI)	An SNCR-type process that broadens the NO <sub>x</sub> reduction capability of the NO <sub>x</sub> OUT Process at a cost similar to NO <sub>x</sub> OUT. RRI can also be applied on a stand-alone basis.
SCR	Selective Catalytic Reduction
SIP Call	State Implementation Plan Regulation
SNCR	Selective Non-Catalytic Reduction
TCI <sup>™</sup> Targeted Corrosion Inhibition <sup>™</sup>	A FUEL CHEM program designed for high-temperature slag and corrosion control, principally in waste-to-energy boilers.
TIFI <sup>™</sup> Targeted In-Furnace Injection <sup>™</sup>	A proprietary technology that enables the precise injection of a chemical reagent into a boiler or furnace as part of a FUEL CHEM program.

# Fuel Tech, Inc. and Subsidiaries

December 31, 2008



## PART I

### Forward-Looking Statements

This Annual Report on Form 10-K contains “forward-looking statements,” as defined in Section 21E of the Securities Exchange Act of 1934, as amended, are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and reflect our current expectations regarding our future growth, results of operations, cash flows, performance and business prospects, and opportunities, as well as assumptions made by, and information currently available to, our management. We have tried to identify forward-looking statements by using words such as “anticipate,” “believe,” “plan,” “expect,” “intend,” “will,” and similar expressions, but these words are not the exclusive means of identifying forward-looking statements. These statements are based on information currently available to us and are subject to various risks, uncertainties, and other factors, including, but not limited to, those discussed herein under the caption “Risk Factors” that could cause our actual growth, results of operations, financial condition, cash flows, performance and business prospects and opportunities to differ materially from those expressed in, or implied by, these statements. Except as expressly required by the federal securities laws, we undertake no obligation to update such factors or to publicly announce the results of any of the forward-looking statements contained herein to reflect future events, developments, or changed circumstances or for any other reason. Investors are cautioned that all forward-looking statements involve risks and uncertainties, including those detailed in Fuel Tech’s filings with the Securities and Exchange Commission. See “Risk Factors” in Item 1A.

### ITEM 1 - BUSINESS

As used in this Annual Report on Form 10-K, the terms “we,” “us,” “our,” “the Company,” and “Fuel Tech” refer to Fuel Tech, Inc. and our wholly-owned subsidiaries.

#### Fuel Tech

Fuel Tech, Inc. (Fuel Tech) is a fully integrated company that uses a suite of advanced technologies to provide boiler optimization, efficiency improvement and air pollution reduction and control solutions to utility and industrial customers worldwide. Originally incorporated in 1987 under the laws of the Netherlands Antilles as Fuel-Tech N.V., Fuel Tech became domesticated in the United States on September 30, 2006, and continues as a Delaware corporation with its corporate headquarters at 27601 Bella Vista Parkway, Warrenville, Illinois, 60555-1617. Fuel Tech maintains an Internet website at [www.fitek.com](http://www.fitek.com). Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934 are made available through our website as soon as reasonably practical after we electronically file or furnish the reports to the Securities and Exchange Commission. Also available on the Corporation’s website are the Company’s Corporate Governance Guidelines and Code of Ethics and Business Conduct, as well as the charters of the audit, compensation and nominating committees of the Board of Directors. All of these documents are available in print without charge to stockholders who request them. Information on our website is not incorporated into this report.

Fuel Tech’s special focus is the worldwide marketing of its nitrogen oxide (NOx) reduction and FUEL CHEM<sup>®</sup> processes. The Air Pollution Control (APC) technology segment reduces NOx emissions in flue gas from boilers, incinerators, furnaces and other stationary combustion sources by utilizing combustion optimization techniques and Low-NOx and Ultra Low-NOx burners; NOxOUT<sup>®</sup> and HERT<sup>™</sup> High Energy Reagent Technology<sup>™</sup> SNCR systems; systems that incorporate NOxOUT CASCADE<sup>®</sup>, NOxOUT ULTRA<sup>®</sup> and NOxOUT-SCR<sup>®</sup> processes; and Ammonia Injection Grids and the Graduated Straightening Grid (GSG). The FUEL CHEM technology segment improves the efficiency, reliability and environmental status of combustion units by controlling slagging, fouling and corrosion, as well as the formation of sulfur trioxide, ammonium bisulfate, particulate matter (PM<sub>2.5</sub>), carbon dioxide, NOx and unburned carbon in fly ash through the addition of chemicals into the fuel or via TIFI<sup>™</sup> Targeted In-Furnace Injection<sup>™</sup> programs. Fuel Tech has other technologies, both commercially available and in the development stage, all of which are related to APC and FUEL CHEM processes or are similar in their technological base. Fuel Tech’s business is materially dependent on the continued existence and enforcement of worldwide air quality regulations.

#### *American Bailey Corporation*

Ralph E. Bailey, Executive Chairman and Director of Fuel Tech, and Douglas G. Bailey, Deputy Chairman and Director of Fuel Tech, are stockholders of American Bailey Corporation (ABC), which is a related party. Please refer to Note 9 to the consolidated financial statements in this document for information about transactions between Fuel Tech and ABC. Additionally, see the more detailed information relating to this subject under the caption “Certain Relationships and Related Transactions” in Fuel Tech’s Proxy Statement, to be distributed in connection with Fuel Tech’s 2009 Annual Meeting of Stockholders, which information is incorporated by reference.

#### Air Pollution Control

##### *Regulations and Markets*

The U.S. air pollution control market is currently the primary driver in Fuel Tech’s NOx reduction technology segment. This market is dependent on air pollution regulations and their continued enforcement. These regulations are based on the Clean Air

Act Amendments of 1990 (the “CAAA”), which require reductions in NOx emissions on varying timetables with respect to various sources of emissions. Under the State Implementation Plan (SIP) Call, a regulation promulgated under the Amendments (discussed further below), over 1,000 utility and large industrial boilers in 19 states were required to achieve NOx reduction targets by May 31, 2004.

In 1994, governors of 11 Northeastern states, known collectively as the Ozone Transport Region, signed a Memorandum of Understanding requiring utilities to reduce their NOx emissions by 55% to 65% from 1990 levels by May 1999. In 1998, the Environmental Protection Agency (EPA) announced more stringent regulations. The Ozone Transport SIP Call regulation, designed to mitigate the effects of wind-aided ozone transported from the Midwestern and Southeastern U.S. into the Northeastern non-attainment areas, required, following the litigation described below, 19 states to make even deeper aggregate reductions of 85% from 1990 levels by May 31, 2004. Over 1,000 utility and large industrial boilers are affected by these mandates. Additionally, most other states with non-attainment areas were also required to meet ambient air quality standards for ozone by 2007.

Although the SIP Call was the subject of litigation, an appellate court of the D.C. Circuit upheld the validity of this regulation. This court’s ruling was later affirmed by the U.S. Supreme Court.

In February 2001, the U.S. Supreme Court, in a unanimous decision, upheld EPA’s authority to revise the National Ambient Air Quality Standard for ozone to 0.080 parts per million averaged through an eight-hour period from the current 0.120 parts per million for a one-hour period. This more stringent standard provided clarity and impetus for air pollution control efforts well beyond the then current ozone attainment requirement of 2007. In keeping with this trend, the Supreme Court, only days later, denied industry’s attempt to stay the SIP Call, effectively exhausting all means of appeal.

On December 23, 2003, the EPA proposed a new regulation affecting the SIP Call states by specifying more expansive NOx reduction. This rule, under the name Clean Air Interstate Rule (CAIR), was issued by the EPA on March 10, 2005. Commencing in 2009, CAIR specifies that additional annual NOx reduction requirements be extended to most SIP-affected units in 28 eastern states, while permitting a cap and trade format similar to the SIP Call. The Company expects an additional 1,300 electric generating units using coal and other fuels to be affected by this rule. In an action related to CAIR, on June 15, 2005, the EPA issued the Clean Air Visibility Rule (CAVR), which is a nationwide initiative to improve federally preserved areas through reduction of NOx and other pollutants. CAVR expands the NOx reduction market to Western states unaffected by CAIR or the SIP Call. Compliance begins in 2013 and CAVR will potentially affect an additional 230 western coal-fired electric-generating units. In addition, CAVR, along with the EPA rule for revised eight-hour ozone attainment, which was proposed on June 20, 2007, have the potential to impact thousands of boilers and industrial units in multiple industries nationwide for units burning coal and other fuels starting in 2013.

On July 11, 2008, the U.S. District Court of Appeals for the District of Columbia Circuit vacated the CAIR regulations under the CAAA under the premise that the EPA exceeded its authority when the rule was created in 2005. The court found “more than several fatal flaws in the rule” but neither took issue with the concept that NOx emissions are to be controlled nor over the limits and thresholds established by CAIR. In vacating the rule in its entirety, the court remanded to EPA to promulgate a rule consistent with the court’s opinion. On September 24, 2008, the EPA filed a petition for the case to be reviewed by the full Court of Appeals, not just the three judge panel that issued the vacatur ruling in July 2008. On October 22, 2008, the EPA was granted a 15-day period to present a basis as to why the court should reconsider its decision. On December 23, 2008, the D.C. Circuit granted the EPA’s petition only to the extent that it remanded the case without vacatur for EPA to conduct further proceedings consistent with the court’s prior opinion. In summary, the court stated that “...allowing CAIR to remain in effect until it is replaced by a rule consistent with our opinion would at least temporarily preserve the environmental values covered by CAIR.” The court did not impose a particular schedule by which the EPA must alter CAIR. CAIR requires the affected states to be in year-round NOx emission compliance beginning January 1, 2009. While we cannot predict the ultimate outcome of this matter, and any unfavorable outcome could have a material adverse effect on our business, results of operations, cash flows, and financial position, the primary driver of CAIR, the Federal CAAA, including the associated National Ambient Air Quality Standards, is in effect and states must comply with this law.

Fuel Tech also sells NOx control systems outside the United States, specifically in Europe and in the People’s Republic of China (China). NOxOUT systems have long been sold in the traditional markets of Western Europe, but interest is growing in newer markets like Eastern Europe as well as Israel for complete NOx reduction programs on both new and existing boilers. Under EU Directives, certain waste incinerators and cement plants must come into compliance with specified NOx reduction targets by the end of 2009, while certain power plants must be in compliance by 2016.

China also represents attractive opportunities for Fuel Tech as the government has set pollution control and energy conservation and efficiency improvements as top priorities. Fuel Tech has viable technologies to help achieve these objectives. China has taken initial steps to reduce NOx emissions on new electric utility units (principally low-NOx burners), and on-going research and demonstration projects are generating cost performance data for use in tightening standards in the near future, both for new and retrofit units. China’s dominant reliance on coal as an energy resource is not expected to change in the foreseeable future. Clean air has been and will continue to be a pressing issue, especially with China’s robust economic growth, expected growth in power production (4%-5% average annual increase through 2020), and an increasingly expanded role in international events and organizations. China hosted the 2008 Beijing Summer Olympics and will host the 2010 Shanghai World Expo. China plans to address in a significant way the pollution control for the existing fleet of fossil plants in the Twelfth Five-Year Plan that takes effect in 2011. Our goal is to establish a leading market position in NOx control resulting from the national demonstration projects utilizing NOxOUT CASCADE technology at Jiangsu Kanshan (two new 600 megawatt units), NOxOUT Selective Non-

Catalytic Reduction (SNCR) technology at Jiangyin Ligang (four new 600 megawatt units) and Inner Mongolia (two new 600 megawatt units), and NOxOUT ULTRA technology on two retrofit projects in Beijing. These projects are showcasing a wide spectrum of Fuel Tech capabilities for NOx emission control with the intent of gaining immediate penetration within the market for new power units, and establishing Fuel Tech as the leader for the larger market for retrofit units later.

The key market dynamic for this product line is the continued use of coal as the principal fuel source for global electricity production. Coal accounts for approximately 50% of all U.S. electricity generation. Coal's share of global electricity generation is forecast to be approximately 45% by 2030. Major coal consumers include China, the United States and India.

### *Products*

Fuel Tech's NOx reduction technologies are installed worldwide on over 450 combustion units, including utility, industrial and municipal solid waste applications. Products include customized NOx control systems and patented urea-to-ammonia conversion technology, which can provide safe reagent for use in Selective Catalytic Reduction (SCR) systems.

- Fuel Tech's NOxOUT process is a Selective Non-Catalytic Reduction (SNCR) process that uses non-hazardous urea as the reagent rather than ammonia. The NOxOUT process on its own is capable of reducing NOx by up to 25% - 50% for utilities and by potentially significantly greater amounts for industrial units in many types of plants with capital costs ranging from \$5 - \$20/kW for utility boilers and with total annualized operating costs ranging from \$1,000 - \$2,000/ton of NOx removed.
- Fuel Tech's NOxOUT CASCADE process uses a catalyst in addition to the NOxOUT process to achieve performance similar to SCR. Capital costs for NOxOUT CASCADE systems can range from \$30 - \$75/kW which is significantly less than that of SCRs, which can cost \$300/kW or more, while operating costs are competitive with those experienced by SCR systems.
- Fuel Tech's NOxOUT-SCR process utilizes urea as a catalyst reagent to achieve NOx reductions of up to 85% from smaller stationary combustion sources with capital and operating costs competitive with equivalently sized, standard SCR systems.
- Fuel Tech's NOxOUT ULTRA process is designed to convert urea to ammonia safely and economically for use as a reagent in the SCR process for NOx reduction. Recent local hurdles in the ammonia permitting process have raised concerns regarding the safety of ammonia storage in quantities sufficient to supply SCR. In addition, the Department of Homeland Security has characterized anhydrous ammonia as a Toxic Inhalation Hazard (TIH) commodity. This is contributing to new restrictions by rail carriers on the movement of anhydrous ammonia and to an escalation in associated rail transport and insurance rates. Overseas, new coal-fired power plants incorporating SCR systems are expected to be constructed at a rapid rate in China, and Fuel Tech's NOxOUT ULTRA process is believed to be a market leader for the safe delivery of ammonia, particularly near densely populated cities, major waterways, harbors or islands, or where the transport of anhydrous or aqueous ammonia is a safety concern.
- Fuel Tech has licensed the Rich Reagent Injection Technology from Reaction Engineering International and Electric Power Research Institute. The technology has been proven in full-scale field studies on cyclone-fired units to reduce NOx by 40% - 60%. The technology is a generic SNCR process, whose applicability is outside the temperature range of the NOxOUT process. The technology is seen as an add-on to Fuel Tech's NOxOUT systems, thus potentially broadening the NOx reduction of the combined system to up to 60% with minimal additional capital requirement.
- Under an exclusive licensing agreement with FGC Corporation, Fuel Tech sells flue gas conditioning systems incorporating FGC Corporation technology for utility applications in all geographies outside the United States and Canada. Flue gas conditioning systems improve the efficiency of particulate collectors, also known as electrostatic precipitators (ESP). These conditioning systems represent a far lower capital cost approach to improving ash particulate capture versus the alternative of installing larger ESPs or fabric filter technology to meet opacity levels.
- As a result of the acquisitions of substantially all of the assets of Tackticks, LLC and FlowTack, LLC in the fourth quarter of 2008, Fuel Tech now provides process design optimization, performance testing and improvement, and catalyst selection services for SCR systems on coal-fired boilers. In addition, other related services, including start-ups, maintenance support and general consulting services for SCR systems, as well as ammonia injection grid design and tuning, to help optimize catalyst performance and catalyst management services to help optimize catalyst life, are now offered to customers around the world. Fuel Tech also specializes in both physical experimental models, which involve construction of scale models through which fluids are tested, and computational fluid dynamics models, which simulate fluid flow by generating a virtual replication of real-world geometry and operating inputs. We design flow corrective devices, such as turning vanes, ash screens, static mixers and our patent pending Graduated Straightening Grid. Our models help clients optimize performance in flow critical equipment, such as selective catalytic reactors in SCR systems, where the effectiveness and longevity of catalysts are of utmost concern. The Company's modeling capabilities are also applied to other power plant systems where proper flow distribution and mixing are important for performance, such as flue gas desulfurization scrubbers, electrostatic precipitators, air heaters, exhaust stacks and carbon injection systems for mercury removal.

Sales of the NOx reduction technologies were \$44.4 million, \$47.8 million and \$46.4 million for the years ended December 31, 2008, 2007 and 2006, respectively.

### *NOx Reduction Competition*

Competition with Fuel Tech's NOx reduction suite of products may be expected from companies supplying urea SNCR systems, combustion modification products, SCR systems and ammonia SNCR systems. In addition, Fuel Tech experiences competition in the urea-to-ammonia conversion market.

Combustion modifications, including low-NOx burners and over-fire-air systems, can be fitted to most types of boilers with cost and effectiveness varying with specific boilers. Combustion modifications may yield up to 20% - 60% NOx reduction economically with capital costs ranging from \$10 - \$20/kW and levelized total costs ranging from \$300 - \$1,500/ton of NOx removed. The modifications are designed to reduce the formation of NOx and are typically the first NOx reduction efforts employed. Such companies as Advanced Combustion Technology, Inc., Alstom, Foster Wheeler Corporation, The Babcock & Wilcox Company, Combustion Components Associates, Inc., Nalco Mobotec, Inc. and Babcock Power, Inc. are active competitors in the low-NOx burner business. On December 8, 2008, Fuel Tech announced that it had signed a definitive agreement to acquire substantially all of the assets of Advanced Combustion Technology, Inc. See Note 13, Subsequent Events, for more information regarding this acquisition.

Once NOx is formed, then the SCR process is an effective and proven method of control for removal of NOx up to 90%. SCR systems have a high capital cost of \$300+/kW on retrofit coal applications. Such companies as Alstom, The Babcock & Wilcox Company, Hitachi, Foster Wheeler Corporation, Peerless Manufacturing Company, and Babcock Power, Inc., are active SCR system providers, or providers of the catalyst itself.

The use of ammonia as the reagent for the SNCR process can reduce NOx by 30% - 70% on incinerators, but has limited applicability in the utility industry. Ammonia system capital costs range from \$5 - \$20/kW, with annualized operating costs ranging from \$1,000 - \$3,000/ton of NOx removed. These systems require the use of either anhydrous or aqueous ammonia, both of which are hazardous substances.

Combustion Components Associates, Inc. is a licensed implementer of our NOxOUT SNCR systems.

In addition to or in lieu of using the foregoing processes, certain customers may elect to close or de-rate plants, purchase electricity from third-party sources, switch from higher to lower NOx-emitting fuels or purchase NOx emission allowances.

Lastly, with respect to urea-to-ammonia conversion technologies, a competitive approach to Fuel Tech's controlled urea decomposition system is available from Wahlco, Inc., which manufactures a system that hydrolyzes urea under high temperature and pressure.

## **FUEL CHEM**

### *Product and Markets*

The FUEL CHEM technology segment revolves around the unique application of specialty chemicals to improve the efficiency, reliability and environmental status of plants operating in the electric utility, industrial, pulp and paper, waste-to-energy, university and district heating markets. FUEL CHEM programs are currently in place on over 95 combustion units, treating a wide variety of solid and liquid fuels, including coal, heavy oil, biomass and municipal waste.

Central to the FUEL CHEM approach is the introduction of chemical reagents, such as magnesium hydroxide, to combustion units via in-body fuel application (pre-combustion) or via direct injection (post-combustion) utilizing Fuel Tech's proprietary TIFI technology. By attacking performance-hindering problems, such as slagging, fouling and corrosion, as well as the formation of sulfur trioxide (SO<sub>3</sub>), ammonium bisulfate (ABS), particulate matter (PM<sub>2.5</sub>), carbon dioxide (CO<sub>2</sub>), NOx and unburned carbon in fly ash, the Company's programs offer numerous operational, financial and environmental benefits to owners of boilers, furnaces and other combustion units.

The key market dynamic for this product line is the continued use of coal as the principal fuel source for global electricity production. Coal accounts for approximately 50% of all U.S. electricity generation. Coal's share of global electricity generation is forecast to be approximately 45% by 2030. Major coal consumers include the United States, China and India.

The principal markets for this product line are electric power plants burning coals with slag-forming constituents such as sodium, iron and high levels of sulfur. Sodium is typically found in the Powder River Basin (PRB) coals of Wyoming and Montana. Iron is typically found in coals produced in the Illinois Basin (IB) region. High sulfur content is typical of IB coals and certain Appalachian coals. High sulfur content can give rise to unacceptable levels of SO<sub>3</sub> formation in plants with SCR systems and flue gas desulfurization units (scrubbers).

The combination of slagging coals and SO<sub>3</sub>-related issues, such as “blue plume” formation, air pre-heater fouling and corrosion, SCR fouling and the proclivity to suppress certain mercury removal processes, represents attractive market potential for Fuel Tech.

Internationally, market opportunities exist in Europe and in the Asia-Pacific region, particularly China and India, where high-slagging coals are fueling a large and growing fleet of power plants. To address the Chinese market, where particular emphasis is being placed on energy efficiency, Fuel Tech extended its exclusive teaming agreement with ITOCHU Hong Kong Ltd., a subsidiary of ITOCHU Corporation, through March 31, 2009. Working under this agreement, the first FUEL CHEM demonstration program in China was announced in January 2008 and a second demonstration program was announced in October 2008. In addition, Fuel Tech was awarded its first FUEL CHEM demonstration program in India in January 2008. TIFI initiatives aimed at energy efficiency improvements result in reduced CO<sub>2</sub> emissions, which potentially can be monetized under provisions of the Kyoto Protocol.

A potentially large fuel treatment market exists in Mexico, where high-sulfur, low-grade fuel oil containing vanadium and nickel is the primary source for electricity production. The presence of these metallic constituents promotes slag build-up, and the fuel properties can result in acid gas and particulate emissions in local combustion units. Fuel Tech has successfully treated such units with its TIFI technology. To capitalize on this market opportunity, the Company signed a five-year license implementation agreement with Energy Marine Services, S.A. de C.V. (EMS), a private Mexican corporation, to implement our TIFI program for utility and end user customers in Mexico.

Sales of the FUEL CHEM products were \$36.7 million, \$32.5 million and \$28.7 million for the years ended December 31, 2008, 2007 and 2006, respectively.

#### *Competition*

Competition for Fuel Tech's FUEL CHEM product line includes chemicals sold by specialty chemical and combustion engineering companies, such as GE Infrastructure, Ashland Inc., and Environmental Energy Services, Inc. No substantive competition currently exists for Fuel Tech's TIFI technology, which is designed primarily for slag control and SO<sub>3</sub> abatement, but there can be no assurance that such lack of substantive competition will continue.

### **INTELLECTUAL PROPERTY**

The majority of Fuel Tech's products are protected by U.S. and non-U.S. patents. Fuel Tech owns 87 granted patents worldwide and has 13 patent applications pending in the United States and 37 pending in non-U.S. jurisdictions. These patents and applications cover some 36 inventions, 23 associated with the NO<sub>x</sub> reduction business, eight associated with the FUEL CHEM business and five associated with non-commercialized technologies. Graduated Straightening Grid (GSG) technology was added into Fuel Tech's inventions through the acquisition of substantially all of the assets of FlowTack. GSG improves flow distribution and direction to potentially improve SCR and CASCADE performance, and minimize flow-related erosion, dust accumulation and heat transfer problems. These inventions represent significant enhancements of the application and performance of the technologies. Further, Fuel Tech believes that the protection provided by the numerous claims in the above referenced patents or patent applications is substantial, and affords Fuel Tech a significant competitive advantage in its business. Accordingly, any significant reduction in the protection afforded by these patents or any significant development in competing technologies could have a material adverse effect on Fuel Tech's business.

### **EMPLOYEES**

At December 31, 2008, Fuel Tech had 196 employees, 170 in North America, 15 in China and 11 in Europe. Fuel Tech enjoys good relations with its employees and is not a party to any labor management agreement.

## ITEM 1A - Risk Factors

Investors in Fuel Tech should be mindful of the following risk factors relative to Fuel Tech's business.

### (i) Lack of Diversification

Fuel Tech has two broad technology segments that provide advanced engineering solutions to meet the pollution control, efficiency improvement, and operational optimization needs of energy-related facilities worldwide. They are as follows:

- The Air Pollution Control technology segment, which includes the NO<sub>x</sub>OUT, NO<sub>x</sub>OUT CASCADE, GSG, NO<sub>x</sub>OUT ULTRA and NO<sub>x</sub>OUT-SCR processes for the reduction of NO<sub>x</sub> emissions in flue gas from boilers, incinerators, furnaces and other stationary combustion sources; and
- The FUEL CHEM technology segment, which uses chemical processes, including TIFI Targeted In-Furnace Injection technology, to control slagging, fouling and corrosion, as well as the formation of sulfur trioxide, ammonium bisulfate, particulate matter (PM<sub>2.5</sub>), carbon dioxide, NO<sub>x</sub> and unburned carbon in fly ash of furnaces and boilers.

An adverse development in Fuel Tech's advanced engineering solution business as a result of competition, technological change, government regulation, or any other factor could have a significantly greater impact than if Fuel Tech maintained more diverse operations.

### (ii) Competition

Competition in the Air Pollution Control market will come from competitors utilizing their own NO<sub>x</sub> reduction processes, including SNCR systems, low-NO<sub>x</sub> burners, over-fire air, flue gas recirculation, ammonia SNCR, SCR and, with respect to particular uses of urea not infringing Fuel Tech's patents, urea (see Item 1 "Intellectual Property"). Competition will also come from business practices such as the purchase rather than the generation of electricity, fuel switching, closure or de-rating of units, and sale or trade of pollution credits and emission allowances. Utilization by customers of such processes or business practices or combinations thereof may adversely affect Fuel Tech's pricing and participation in the NO<sub>x</sub> control market if customers elect to comply with regulations by methods other than the purchase of Fuel Tech's suite of Air Pollution Control products. See above text under the captions "*Products*" and "*NO<sub>x</sub> Reduction Competition*" in the *Air Pollution Control* segment overview.

Competition in the FUEL CHEM markets includes chemicals sold by specialty chemical and combustion engineering companies, such as GE Infrastructure, Ashland Inc. and Environmental Energy Services, Inc. As noted previously, no significant competition currently exists for Fuel Tech's patented TIFI technology, which is designed primarily for slag control and SO<sub>3</sub> abatement. However, there can be no assurance that such lack of significant competition will continue.

### (iii) Dependence on and Change in Air Pollution Control Regulations and Enforcement

Fuel Tech's business is significantly impacted by and dependent upon the regulatory environment surrounding the electricity generation market. Our business will be adversely impacted to the extent that regulations are repealed or amended to significantly reduce the level of required NO<sub>x</sub> reduction, or to the extent that regulatory authorities delay or otherwise minimize enforcement of existing laws. Additionally, long-term changes in environmental regulation that threaten or preclude the use of coal or other fossil fuels as a primary fuel source for electricity production, based on the theory that gases emitted therefrom impact climate change through a greenhouse effect, and result in the reduction or closure of a significant number of fossil fuel-fired power plants, may adversely affect the Company's business, financial condition and results of operations. See also the text above under the caption "*Regulations and Markets*" in the *Air Pollution Control* segment overview.

### (iv) Protection of Patents and Proprietary Rights

Fuel Tech holds licenses to or owns a number of patents for our products and processes. In addition, we also have numerous patents pending. There can be no assurance that pending patent applications will be granted or that outstanding patents will not be challenged or circumvented by competitors. Certain critical technology relating to our products is protected by trade secret laws and by confidentiality and licensing agreements. There can be no assurance that such protection will prove adequate or that we will have adequate remedies against contractual counterparties for disclosure of our trade secrets or violations of Fuel Tech's intellectual property rights. See Item 1 "Intellectual Property."

### (v) Foreign Operations

In 2007, we expanded our operations into China by establishing a wholly-owned subsidiary in Beijing. The Asia-Pacific region, particularly China and India, offers significant market opportunities for Fuel Tech as these nations look to establish regulatory policies for improving their environment and utilizing fossil fuels, especially coal, efficiently and effectively. The future business opportunities in these markets are dependent on the continued implementation of regulatory policies that will benefit our technologies, the acceptance of Fuel Tech's engineering solutions in such markets, and the ability of potential customers to utilize Fuel Tech's technologies on a cost-effective basis.

### (vi) Product Pricing and Operating Results

The onset of significant competition for either of the technology segments might have an adverse impact on product pricing and a resulting adverse impact on realized gross margins and operating profitability.

(vii) Raw Material Supply and Pricing

The FUEL CHEM technology segment is reliant upon a long-term global supply of magnesium hydroxide. Any adverse change in the availability of supply for this chemical will likely have an adverse impact on our cost structure. On October 1, 2008 we entered into a Product Supply Agreement (“PSA”) with Martin Marietta Magnesia Specialties, LLC (MMMS) in order to assure the continuance of a stable supply from MMMS of magnesium hydroxide products for our requirements in the United States and Canada until December 31, 2013. Magnesium hydroxide products are a significant component of the FUEL CHEM programs. There can be no assurance that Fuel Tech will be able to obtain a stable source of magnesium hydroxide in markets outside the United States.

(ix) Customer Access to Capital Funds

Uncertainty about current economic conditions in the United States and globally poses risk that Fuel Tech’s customers may postpone spending for capital improvement projects in response to tighter credit markets, negative financial news and/or decline in demand for electricity generated by combustion units, all of which could have a material negative effect on demand for the Fuel Tech’s products and services.

(x) Customer Concentration

A small number of customers have historically accounted for a material portion of Fuel Tech’s revenues (see note 11 – Business Segment, Geographic and Quarterly Financial Data). There can be no assurance that Fuel Tech’s current customers will continue to place orders, that orders by existing customers will continue at the levels of previous periods, or that Fuel Tech will be able to obtain orders from new customers. The loss of one or more of our customers could have a material adverse effect on our sales and operating results.

**ITEM 1B - UNRESOLVED STAFF COMMENTS**

None

**ITEM 2 - PROPERTIES**

Fuel Tech and its subsidiaries operate from leased office facilities in Warrenville, Illinois; Stamford, Connecticut; Durham, North Carolina; Gallarate, Italy and Beijing, China. Fuel Tech does not segregate any of its leased facilities by operating business segment. The terms of the three material agreements are as follows:

- The Stamford, Connecticut building lease term, for approximately 7,000 square feet, runs from February 1, 2004 to January 31, 2010. The facility houses certain administrative functions such as Investor Relations, Benefit Plan Administration and certain APC sales functions.
- The Beijing, China building lease term, for approximately 4,000 square feet, runs from September 1, 2007 to August 31, 2009. This facility serves as the operating headquarters for our Beijing Fuel Tech operation. Fuel Tech has the option to extend the lease term at a market rate to be agreed upon between Fuel Tech and the lessor.
- The Durham, North Carolina building lease term, for approximately 16,000 square feet, runs from November 1, 2005 to April 30, 2014. This facility houses the former Tackticks and FlowTack operations. Fuel Tech has no option to extend the lease.

In addition to the above, on November 30, 2007, Fuel Tech purchased an office building in Warrenville, Illinois, which has served as our corporate headquarters since June 23, 2008. This facility, with approximately 40,000 square feet of office space, was purchased for approximately \$6,000,000 and subsequently built out and furnished for an additional cost of approximately \$5,500,000. This facility will meet our growth requirements for the foreseeable future. Our prior headquarters, an 18,000 square foot location in Batavia, Illinois, remains under an operating lease until May 31, 2009. We have no plans to renew this lease.

**ITEM 3 - LEGAL PROCEEDINGS**

We are from time to time involved in litigation incidental to our business. We are not currently involved in any litigation in which we believe an adverse outcome would have a material effect on our business, financial conditions, results of operations, or prospects.

**ITEM 4 - SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

During the fourth quarter of 2008, no matters were submitted to a vote of security holders.

## PART II

### ITEM 5 - MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASE OF EQUITY SECURITIES

#### Market

Fuel Tech's Common Shares have been traded since September 1993 on The NASDAQ Stock Market, Inc. The trading symbol is FTEK.

#### Prices

The table below sets forth the high and low sales prices during each calendar quarter since January 2007.

	<u>2008</u>	<u>High</u>	<u>Low</u>
Fourth Quarter		\$ 18.95	\$ 6.05
Third Quarter		24.76	14.52
Second Quarter		27.16	17.55
First Quarter		22.94	14.15
	<u>2007</u>	<u>High</u>	<u>Low</u>
Fourth Quarter		\$ 34.48	\$ 16.89
Third Quarter		35.85	20.65
Second Quarter		38.20	21.65
First Quarter		29.68	22.54

#### Dividends

Fuel Tech has never paid cash dividends on its common stock and has no current plan to do so in the foreseeable future. The declaration and payment of dividends on the Common Stock are subject to the discretion of the Company's Board of Directors. The decision of the Board of Directors to pay future dividends will depend on general business conditions, the effect of a dividend payment on our financial condition, and other factors the Board of Directors may consider relevant. The current policy of the Company's Board of Directors is to reinvest earnings in operations to promote future growth.

#### Share Repurchase Program

Fuel Tech purchased no equity securities during the quarter and year ended December 31, 2008.

#### Holdings

Based on information from the Company's Transfer Agent and from banks and brokers, the Company estimates that, as of February 24, 2009, there were approximately 24,000 beneficial holders and 277 registered stockholders of Fuel Tech's Common Shares.

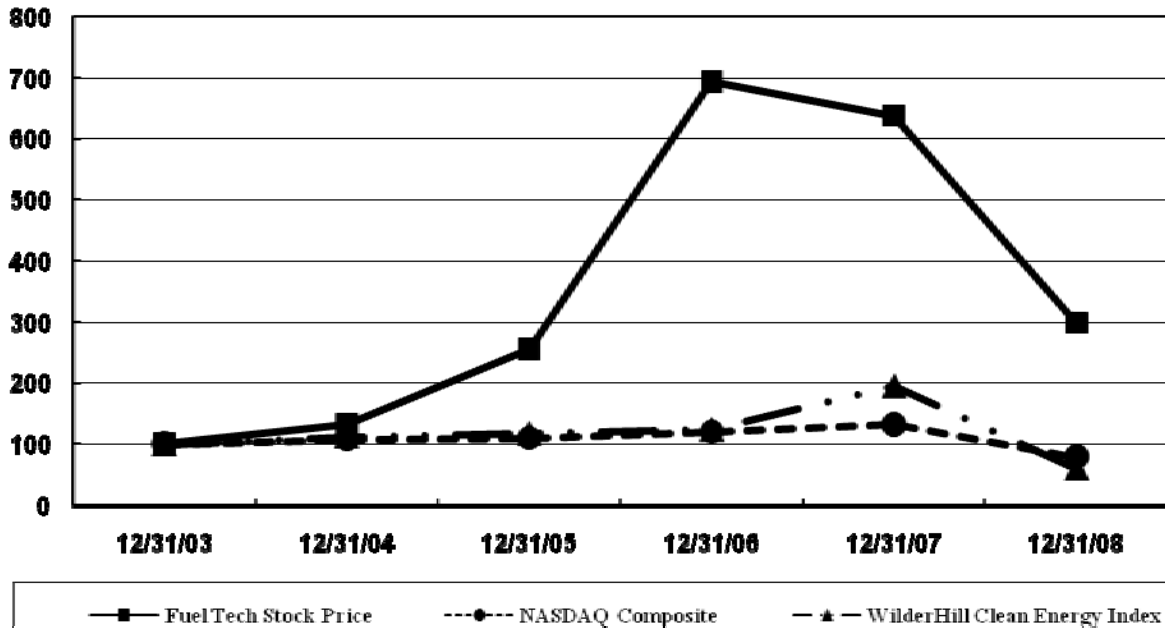
#### Transfer Agent

The Transfer Agent and Registrar for the Common Shares is BNY Mellon Shareowner Services, 480 Washington Boulevard, Jersey City, New Jersey 07310-1900.

**Performance Graph**

The following line graph compares (i) Fuel Tech's total return to stockholders per share of Common Stock for the five years ended December 31, 2008 to that of (ii) the NASDAQ Composite index, and (iii) the WilderHill Clean Energy Index for the period December 31, 2003 through December 31, 2008.

**Fuel Tech, Inc.  
Stock Performance Graph  
12/31/03 - 12/31/08**



## ITEM 6 - SELECTED FINANCIAL DATA

Selected financial data are presented below as of the end of and for each of the fiscal years in the five-year period ended December 31, 2008. The selected financial data should be read in conjunction with the audited consolidated financial statements as of and for the year ended December 31, 2008, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this report and the schedules thereto.

<b>CONSOLIDATED STATEMENT of OPERATIONS DATA</b>	<b>For the years ended December 31,</b>				
	2008	2007	2006	2005	2004
(in thousands of dollars, except for share and per-share data)					
Revenues	\$ 81,074	\$ 80,297	\$ 75,115	\$ 52,928	\$ 30,832
Cost of sales	44,345	42,471	38,429	27,118	16,566
Selling, general and administrative and other costs and expenses	30,112	27,087	25,953	18,655	14,130
Operating income	6,617	10,739	10,733	7,155	136
Net income	3,602	7,243	6,826	7,588	1,572
Basic income per Common Share	\$ 0.15	\$ 0.33	\$ 0.32	\$ 0.38	\$ 0.08
Diluted income per Common Share	\$ 0.15	\$ 0.29	\$ 0.28	\$ 0.33	\$ 0.07
Weighted-average basic shares outstanding	23,608,000	22,280,000	21,491,000	20,043,000	19,517,000
Weighted-average diluted shares outstanding	24,590,000	24,720,000	24,187,000	23,066,000	22,155,000

<b>CONSOLIDATED BALANCE SHEET DATA</b>	<b>December 31</b>				
	2008	2007	2006	2005	2004
(in thousands of dollars)					
Working capital	\$ 44,346	\$ 45,143	\$ 38,715	\$ 19,590	\$ 11,292
Total assets	88,873	87,214	65,660	44,075	23,828
Long-term obligations	1,389	1,255	500	448	505
Total liabilities	15,056	23,975	18,005	14,939	4,873
Stockholders' equity (1)	73,817	63,239	47,655	29,136	18,955

Notes:

(1) Stockholders' equity includes principal amount of nil coupon non-redeemable perpetual loan notes. See Note 5 to the consolidated financial statements.

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

### **Background**

Fuel Tech, Inc. ("Fuel Tech") has two broad technology segments that provide advanced engineering solutions to meet the pollution control, efficiency improvement and operational optimization needs of energy-related facilities worldwide. They are as follows:

#### *Air Pollution Control Technologies*

The Air Pollution Control technology segment focuses primarily on nitrogen oxide ("NOx") emission reductions in flue gas from boilers, incinerators, furnaces and other stationary combustion sources and includes the NOxOUT, NOxOUT CASCADE, GSG, NOxOUT ULTRA and NOxOUT-SCR processes. Fuel Tech distributes its products through its direct sales force, licensees and agents.

#### *FUEL CHEM Technologies*

The FUEL CHEM technology segment uses chemical processes, including TIFI Targeted In-Furnace Injection technology, to control slagging, fouling and corrosion, as well as the formation of sulfur trioxide, ammonium bisulfate, particulate matter (PM<sub>2.5</sub>), carbon dioxide, NOx and unburned carbon in fly ash in furnaces and boilers. Fuel Tech sells its FUEL CHEM program through its direct sales force and agents to industrial and utility power-generation facilities. At December 31, 2008, FUEL CHEM programs were operating on over 95 combustion units around the world, treating a wide variety of solid and liquid fuels, including coal, heavy oil, biomass and municipal waste. The FUEL CHEM program improves the efficiency, reliability and environmental status of plants operating in the electric utility, industrial, pulp and paper, waste-to-energy, university and district heating markets and offers numerous operational, financial and environmental benefits to owners of boilers, furnaces and other combustion units.

The key market dynamic for both technology segments is the continued use of fossil fuels, especially coal, as the principal fuel source for global electricity production. Coal accounts for approximately 50% of all U.S. electricity generation. Coal's share of global electricity generation is forecast to be approximately 45% by 2030. Major coal consumers include China, the United States and India.

### **Critical Accounting Policies and Estimates**

The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America, which require us to make estimates and assumptions. We believe that of our accounting policies (see Note 1 to the consolidated financial statements), the following involve a higher degree of judgment and complexity and are deemed critical. We routinely discuss our critical accounting policies with the Company's Audit Committee.

#### *Revenue Recognition*

Revenues from the sales of chemical products are recorded when title transfers, either at the point of shipment or at the point of destination, depending on the contract with the customer.

Fuel Tech uses the percentage of completion method of accounting for equipment construction and license contracts that are sold within the Air Pollution Control technology segment. Under the percentage of completion method, revenues are recognized as work is performed based on the relationship between actual construction costs incurred and total estimated costs at completion. Revisions in completion estimates and contract values in the period in which the facts giving rise to the revisions become known can influence the timing of when revenues are recognized under the percentage of completion method of accounting. Provisions are made for estimated losses on uncompleted contracts in the period in which such losses are determined. As of December 31, 2008 and December 31, 2007, Fuel Tech had no construction contracts in progress that were identified as loss contracts.

Fuel Tech's APC contracts are typically six to twelve months in length. A typical contract will have three or four critical operational measurements that, when achieved, serve as the basis for us to invoice the customer via progress billings. At a minimum, these measurements will include the generation of engineering drawings, the shipment of equipment and the completion of a system performance test.

As part of most of its contractual project agreements, Fuel Tech will agree to customer-specific acceptance criteria that relate to the operational performance of the system that is being sold. These criteria are determined based on mathematical modeling that is performed by Fuel Tech personnel, which is based on operational inputs that are provided by the customer. The customer will

warrant that these operational inputs are accurate as they are specified in the binding contractual agreement. Further, the customer is solely responsible for the accuracy of the operating condition information; all performance guarantees and equipment warranties granted by us are void if the operating condition information is inaccurate or is not met.

Accounts receivable includes unbilled receivables, representing revenues recognized in excess of billings on uncompleted contracts under the percentage of completion method of accounting. At December 31, 2008 and December 31, 2007, unbilled receivables were approximately \$5,552 and \$16,813, respectively. Billings in excess of costs and estimated earnings on uncompleted contracts were \$1,223 and \$821 at December 31, 2008 and December 31, 2007, respectively. Such amounts are included in other accrued liabilities on the consolidated balance sheet.

Fuel Tech has installed over 450 units with the technology and has never failed to meet a performance guarantee when the customer has provided the required operating conditions for the project. As part of the project implementation process, we perform system start-up and optimization services that effectively serve as a test of actual project performance. We believe that this test, combined with the accuracy of the modeling that is performed, enables revenue to be recognized prior to the receipt of formal customer acceptance.

#### *Allowance for Doubtful Accounts*

In order to control and monitor the credit risk associated with our customer base, we review the credit worthiness of customers on a recurring basis. Factors influencing the level of scrutiny include the level of business the customer has with Fuel Tech, the customer's payment history and the customer's financial stability. Representatives of our management team review all past due accounts on a weekly basis to assess collectibility. At the end of each reporting period, the allowance for doubtful accounts balance is reviewed relative to management's collectibility assessment and is adjusted if deemed necessary. Our historical credit loss has been insignificant.

#### *Assessment of Potential Impairments of Goodwill and Intangible Assets*

Effective January 1, 2002, Fuel Tech adopted Financial Accounting Standards Board (FASB) Statement No. 142, "Goodwill and Other Intangible Assets" (SFAS 142). Under the guidance of this statement, goodwill and indefinite-lived intangible assets are no longer amortized, but rather are required to be reviewed annually or more frequently if indicators arise, for impairment. The evaluation of impairment involves comparing the current fair value of the business to the carrying value. Fuel Tech uses a discounted cash flow (DCF) model to determine the current fair value of its two reporting units. A number of significant assumptions and estimates are involved in the application of the DCF model to forecast operating cash flows, including markets and market share, sales volumes and prices, costs to produce and working capital changes. Management considers historical experience and all available information at the time the fair values of its reporting units are estimated. However, actual fair values that could be realized in an actual transaction may differ from those used to evaluate the impairment of goodwill.

Fuel Tech reviews other intangible assets, which include customer lists and relationships, covenants not to compete, patent assets and acquired technologies, for impairment on a recurring basis or when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. In the event the sum of the expected undiscounted future cash flows resulting from the use of the asset is less than the carrying amount of the asset, an impairment loss equal to the excess of the asset's carrying value over its fair value is recorded. Management considers historical experience and all available information at the time the estimates of future cash flows are made, however, the actual cash values that could be realized may differ from those that are estimated.

Based upon the nature of the goodwill and other intangible assets recorded on the balance sheets as of December 31, 2008 and 2007, the Company believes that, in order for an impairment to occur, a series of material prolonged negative economic events would have to occur. These events would most likely be seen in economic indicators such as suppressed consolidated revenues or Common Stock price, reduced cash flows or declining APC order backlog.

#### *Valuation Allowance for Deferred Income Taxes*

Deferred tax assets represent deductible temporary differences and net operating loss and tax credit carryforwards. A valuation allowance is recognized if it is more likely than not that some portion of the deferred tax asset will not be realized. At the end of each reporting period, Fuel Tech reviews the realizability of the deferred tax assets. As part of this review, we consider if there are taxable temporary differences that could generate taxable income in the future, if there is the ability to carry back the net operating losses or credits, if there is a projection of future taxable income, and if there are any tax planning strategies that can be readily implemented.

#### *Stock-Based Compensation*

Fuel Tech recognizes compensation expense for employee equity awards ratably over the requisite service period of the award. We utilize the Black-Scholes option-pricing model to estimate the fair value of awards. Determining the fair value of stock options using the Black-Scholes model requires judgment, including estimates for (1) risk-free interest rate – an estimate based on the yield

of zero-coupon treasury securities with a maturity equal to the expected life of the option; (2) expected volatility – an estimate based on the historical volatility of Fuel Tech’s Common Stock for a period equal to the expected life of the option; and (3) expected life of the option – an estimate based on historical experience including the effect of employee terminations. If any of these assumptions differ significantly from actual, stock-based compensation expense could be impacted.

#### *Recently Adopted Accounting Standards*

In September 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standard No. 157, “Fair Value Measurements” (SFAS 157), which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS 157 does not require any new fair value measurements, but provides guidance on how to measure fair value by providing a fair value hierarchy used to classify the source of the information. This statement is effective for fiscal years beginning after November 15, 2007. On February 14, 2008, the FASB issued FSP FAS No. 157-1 “Application of FASB Statement No. 157 to FASB Statement 13 and Other Accounting Pronouncements That Address Fair Value Measurements for Purposes of Lease Classification or Measurement Under Statement 13” (SFAS 157-1) that amends SFAS 157 to exclude its application for purposes of lease classification or measurement under SFAS 13. On February 12, 2008, the FASB issued Staff Position Financial Accounting Standard (FSP FAS) No. 157-2 “Effective Date of FASB Statement No. 157” (FSP 157-2) that amends SFAS 157 to delay the effective date for all non-financial assets and non-financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis to fiscal years beginning after November 15, 2008. The Company adopted the required provisions of SFAS 157-1 effective January 1, 2008 and there was no material effect on its consolidated financial statements. The Company has adopted FSP 157-2 to delay the adoption effects related to non-financial assets and does not anticipate there will be a material effect on its consolidated financial statements. In October 2008, the FASB issued FSP 157-3, “Determining the Fair Value of a Financial Asset in a Market That Is Not Active.” The FSP was effective upon issuance, including periods for which financial statements have not been issued. The FSP clarified the application of SFAS 157 in an inactive market and provided an illustrative example to demonstrate how the fair value of a financial asset is determined when the market for that financial asset is inactive. The adoption of this FSP FAS 157-3 did not have a material impact on the Company’s consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), “Business Combinations” (SFAS 141R). SFAS 141R establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any noncontrolling interest in the acquiree and the goodwill acquired. SFAS 141R also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. SFAS 141R is effective for financial statements issued for fiscal years beginning after December 15, 2008. The Company is currently evaluating the potential impact of adoption of SFAS 141R on its consolidated financial statements. However, the Company does not expect the adoption of SFAS 141R to have a material effect on its consolidated financial statements.

In April 2008, the FASB issued FASB Staff Position No. FAS 142-3, *Determination of the Useful Life of Intangible Assets* (“FSP No. FAS 142-3”). FSP No. FAS 142-3 requires companies estimating the useful life of a recognized intangible asset to consider their historical experience in renewing or extending similar arrangements or, in the absence of historical experience, to consider assumptions that market participants would use about renewal or extension as adjusted for SFAS 142’s, *Goodwill and Other Intangible Assets*, entity-specific factors. FSP No. FAS 142-3 will be effective for fiscal years beginning after December 15, 2008. The Company is currently evaluating the potential impact of adoption of FSP No. FAS 142-3 on its consolidated financial statements. However, the Company does not expect the adoption of FSP No. FAS 142-3 to have a material effect on its consolidated financial statements.

In May 2008, the FASB issued Statement of Financial Accounting Standards No. 162, “The Hierarchy of Generally Accepted Accounting Principles” (SFAS 162). SFAS 162 identifies the sources of accounting principles and the framework for selecting the principles used in the preparation of financial statements that are presented in conformity with generally accepted accounting principles. SFAS 162 becomes effective 60 days following the SEC’s approval of the Public Company Accounting Oversight Board amendments to AU Section 411, “The Meaning of Present Fairly in Conformity With Generally Accepted Accounting Principles.” The Company does not expect that the adoption of SFAS 162 to have a material effect on its consolidated financial statements.

#### **2008 versus 2007**

Revenues for the years ended December 31, 2008 and 2007 were \$81,074 and \$80,297, respectively. The year-over-year increase of \$777, or 1%, was driven by a 13% increase in revenues from the FUEL CHEM technology segment that were largely offset by a modest revenue decline in the APC technology segment.

Revenues for the APC technology segment were \$44,393 for the year ended December 31, 2008, a decrease of \$3,357, or 7%, versus 2007. The global financial crisis and the vacatur of the Clean Air Interstate Rule (CAIR) in July 2008 (subsequently remanded in December 2008) had a negative effect on segment revenues and APC order backlog. This segment is well positioned to capitalize on CAIR - the next phase of increasingly stringent U.S. air quality standards - which is effective January 1, 2009, and the Clean Air Visibility Rule (CAVR), which is effective January 1, 2013. Thousands of utility and industrial boilers will be impacted by these regulations and Fuel Tech’s technologies will serve as an important element in enabling utility

and industrial boiler unit owners to attain compliance. During 2008, Fuel Tech announced new contracts valued at approximately \$21,000.

Revenues for the FUEL CHEM technology segment were \$36,681 for the year ended December 31, 2008, an increase of \$4,134, or 13%, versus 2007. This segment's growth is indicative of the continued market acceptance of Fuel Tech's patented TIFI Targeted In-Furnace Injection technology, particularly on coal-fired units, which represent the largest market opportunity for the technology, both domestically and abroad. During 2008, Fuel Tech added 15 new units to its customer base, 13 of which were coal-fired units, the largest annual total in the Company's history. Historically, most demonstrations convert into commercial accounts.

Cost of sales for the years ended December 31, 2008 and 2007 was \$44,345 and \$42,471, respectively. Cost of sales as a percentage of revenues for the years ended December 31, 2008 and 2007 was 54% and 53%, respectively. The 2008 cost of sales percentage for the APC technology segment increased to 55% from 54% in 2007. The increase is attributable to the mix of project business. The 2008 cost of sales percentage for the FUEL CHEM technology segment increased to 55% in 2008 from 51% in 2007. The increase is due to costs associated with demonstration periods and other related start-up activities for the record number of incremental units noted above, especially for the demonstrations in India and China where the Company bore a significantly higher portion of the costs versus typical demonstrations in the United States.

Selling, general and administrative expenses for the years ended December 31, 2008 and 2007 were \$28,012 and \$24,950, respectively. The \$3,062 increase over 2007 is principally attributable to the following:

- Fuel Tech recorded \$5,815 in stock compensation expense in 2008 in accordance with SFAS 123(R), as discussed in Note 6 to the consolidated financial statements. This amount represented a \$1,024 increase over 2007, attributable to stock option awards to Directors and certain Fuel Tech employees in 2008 and the on-going expense recognition related to stock options awarded in prior years.
- Fuel Tech invested approximately \$2,000 in personnel and other costs, including expenses associated with the start-up of the Company's Beijing, China office, in the areas of Engineering, Sales, Marketing and Administration to ensure the Company's financial and operational infrastructure are able to accommodate anticipated future growth.
- Partially offsetting this unfavorable variance was a reduction in annual incentive expenses of \$1,500 as the minimum income threshold for the year ended December 31, 2008 was not met and, thus, no 2008 bonus payments were made under the Company's incentive plan.

Research and development expenses were \$2,100 and \$2,137 for the years ended December 31, 2008 and 2007, respectively. Fuel Tech has established a more focused approach in the pursuit of commercial applications for its technologies outside of its traditional markets, and in the development and analysis of new technologies that could represent incremental market opportunities.

Interest income for the year ended December 31, 2008 decreased by \$893 versus 2007 due to decreases in the interest rates paid by institutions with whom the Company's investments were located. Further, Fuel Tech recorded interest expense of \$135 in 2008 related specifically to a short-term credit facility that was used to support the start-up of Fuel Tech's office in Beijing, China. Finally, the change in other income / (expense) is due largely to the impact of foreign exchange rates related to balances denominated in foreign currencies.

For the year ended December 31, 2008, Fuel Tech recorded tax expense of \$3,305. For the year ended December 31, 2007, Fuel Tech recorded tax expense of \$5,187 that predominantly represented deferred tax expense related to taxable income recognized in 2007.

#### **2007 versus 2006**

Revenues for the years ended December 31, 2007 and 2006 were \$80,297 and \$75,115, respectively. The year-over-year increase of \$5,182, or 7%, predominantly reflects moderate increases in both technology segments.

Revenues for the APC technology segment were \$47,750 for the year ended December 31, 2007, an increase of \$1,296, or 3%, versus 2006. This segment is positioned well to capitalize on the next phase of increasingly stringent U.S. air quality standards. With the compliance for the EPA's SIP Call regulation beginning to wind down, utilities and industrial facilities across the country are planning for compliance with the Clean Air Interstate Rule (CAIR) and the Clean Air Visibility Rule (CAVR), which take effect in 2009 and 2013, respectively. Thousands of utility and industrial boilers will be impacted by these regulations and Fuel Tech's technologies will serve as an important element in enabling utility and industrial boiler unit owners to attain compliance. In 2007, Fuel Tech announced new contracts valued at \$60 million, which exceeded the previous annual record by almost 40%.

Revenues for the FUEL CHEM technology segment were \$32,547 in 2007, an increase of \$3,886, or 14%, over 2006. This segment's growth is indicative of the continued market acceptance of Fuel Tech's patented TIFI Targeted In-Furnace Injection

technology, particularly on coal-fired units, which represent the largest market opportunity for the technology, both domestically and abroad. In 2007, Fuel Tech added 10 new coal-fired units to its customer base, the largest annual total in the Company's history.

Cost of sales for the years ended December 31, 2007 and 2006 was \$42,471 and \$38,429, respectively. Cost of sales as a percentage of revenues for the years ended December 31, 2007 and 2006 was 53% and 51%, respectively. The cost of sales percentage for 2007 for the APC technology segment decreased to 54% from 57% in 2006. The decrease is attributable to the mix of project business. For the FUEL CHEM technology segment, the cost of sales percentage increased to 51% in 2007 from 42% in 2006. The increase is due to start-up costs related to the incremental units noted above, without the realization of related revenues as only two of the 10 new units contributed significant revenues during 2007 due to customer-related delays impacting the timing of startup.

Selling, general and administrative expenses for the years ended December 31, 2007 and 2006 were \$24,950 and \$23,901, respectively. The \$1,049 increase over 2006 is principally attributable to the following:

- Fuel Tech recorded \$4,791 in stock compensation expense in 2007 in accordance with Statement 123(R), as discussed in Note 6 to the consolidated financial statements. This amount represented a \$2,986 increase over 2006 attributable to the awarding of stock options to all Fuel Tech employees in December 2006 and to an increase in the fair value of the options granted, which was driven by an increase in the price of Fuel Tech's Common Stock.
- Partially offsetting this unfavorable variance was a reduction in revenue-related expenses of \$2,100 as Fuel Tech aligned the focus of all employees under a common incentive plan in 2007.

Research and development expenses were \$2,137 and \$2,052 for the years ended December 31, 2007 and 2006, respectively. Fuel Tech has established a more focused approach in the pursuit of commercial applications for its technologies outside of its traditional markets, and in the development and analysis of new technologies that could represent incremental market opportunities.

Interest income increased by \$623 over 2006 reflecting higher average cash and short-term investment balances. Further, Fuel Tech recorded interest expense of \$24 in 2007 related specifically to a short-term credit facility that was used to support the start-up of Fuel Tech's new office in Beijing, China. Finally, the moderate increase in other income is due largely to foreign exchange gains related to balances denominated in foreign currencies.

For the year ended December 31, 2007, Fuel Tech recorded tax expense of \$5,187, which predominantly represents deferred tax expense related to taxable income recognized in 2007. For the year ended December 31, 2006, Fuel Tech recorded tax expense of \$4,942, also representing deferred tax expense related to taxable income.

### **Liquidity and Sources of Capital**

At December 31, 2008, Fuel Tech had cash and cash equivalents and short-term investments of \$28,149 and working capital of \$44,346 versus \$32,471 and \$45,143 at December 31, 2007, respectively. Operating activities provided \$8,047 of cash for the year ended December 31, 2008, primarily due to the favorable operating results of the business segments.

Investing activities used cash of \$11,769 for the year ended December 31, 2008, primarily for expenditures related to our new corporate headquarters building to support and enhance the operations of the business of \$5,200, the acquisition funding for substantially all of the assets of Tackticks, LLC and FlowTack, LLC of \$3,928 and the remainder used principally for equipment related to the FUEL CHEM technology segment. Capital expenditures, which typically consist of equipment related to FUEL CHEM demonstration programs or commercial installations, are expected to be funded primarily from cash flows from operations. Other than the outfitting of the new corporate headquarters building in 2008, the Company has historically incurred a nominal amount of maintenance capital expenditures.

Fuel Tech generated cash from financing activities in the amount of \$1,377. Of this amount, \$619 represents proceeds derived from the exercise price of options and warrants exercised in 2008, while \$548 represents the excess tax benefits realized from the exercise of stock options in 2008.

Fuel Tech has a domestic \$25.0 million revolving credit facility expiring July 31, 2009. The facility is unsecured and bears interest at a rate of LIBOR plus 75 basis points. Fuel Tech can use this facility for cash advances and standby letters of credit.

At December 31, 2008, the Company had outstanding standby letters of credit and bank guarantees, predominantly to customers, totaling approximately \$5,865 in connection with contracts in process. Fuel Tech is committed to reimbursing the issuing bank for any payments made by the bank under these instruments. At December 31, 2008, there were no cash borrowings under the revolving credit facility and approximately \$19,135 was available. Management has met with the Company's lending institutions and, during the course of those meetings, was not made aware of any information indicating that they will not be able to perform their obligations for any letters of credit or guarantees issued, nor be unable to supply funds to Fuel Tech if the Company chooses to borrow funds under its two revolving credit facilities.

Beijing Fuel Tech Environmental Technologies Company, Ltd. (Beijing Fuel Tech), a wholly-owned subsidiary of Fuel Tech, entered into a revolving credit facility agreement during the third quarter of 2007 for RMB 35 million (approximately \$4.8

million), which expires on July 31, 2009. The facility is unsecured and bears interest at a rate of 90% of the People's Bank of China (PBOC) Base Rate. Beijing Fuel Tech can use this facility for cash advances and bank guarantees. At December 31, 2008, Beijing Fuel Tech had borrowings outstanding in the amount \$2,188.

Interest payments in the amount of \$135 and \$24 were made during the years ended December 31, 2008 and 2007, respectively. No payments were made during the year ended December 31, 2006.

In the opinion of management, Fuel Tech's expected near-term revenue growth will be driven by the timing of penetration of the coal-fired utility marketplace via utilization of its TIFI technology, by utility and industrial entities' adherence to the NOx reduction requirements of the various domestic environmental regulations, and by the expansion of both business segments in non-U.S. geographies. Fuel Tech expects its liquidity requirements to be met by the operating results generated from these activities.

#### Contractual Obligations and Commitments

In its normal course of business, Fuel Tech enters into agreements that obligate Fuel Tech to make future payments. The operating lease obligations noted below are primarily related to supporting the operations of the business.

<b>Payments due by period in thousands of dollars</b>					
<b>Contractual Cash Obligations</b>	<b>Total</b>	<b>Less than 1 year</b>	<b>2-3 years</b>	<b>4-5 years</b>	<b>Thereafter</b>
Operating Leases	\$ 1,720	\$ 663	\$ 527	\$ 468	\$ 62

Beijing Fuel Tech Environmental Technologies Company, Ltd. (Beijing Fuel Tech), a wholly-owned subsidiary of Fuel Tech, entered into a revolving credit facility agreement during the third quarter of 2007 for RMB 35 million (approximately \$4.8 million), which expires on July 31, 2009. The facility is unsecured and bears interest at a rate of 90% of the People's Bank of China (PBOC) Base Rate. Beijing Fuel Tech can use this facility for cash advances and bank guarantees. At December 31, 2008, Beijing Fuel Tech had borrowings outstanding in the amount \$2,188 as noted in the table below.

<b>Commitment expiration by period in thousands of dollars</b>					
<b>Commercial Commitments</b>	<b>Total</b>	<b>Less than 1 year</b>	<b>2-3 years</b>	<b>4-5 years</b>	<b>Thereafter</b>
Short-term debt	\$ 2,188	\$ 2,188	\$ -	\$ -	\$ -

For the years ended December 31, 2008 and 2007, Fuel Tech incurred interest expense related to the Beijing Fuel Tech short-term debt of \$135 and \$24, respectively. We cannot estimate the fiscal 2009 interest expense for this short-term debt as the debt may be repaid at any time during fiscal 2009.

Fuel Tech, in the normal course of business, uses bank performance guarantees and letters of credit in support of construction contracts with customers as follows:

- in support of the warranty period defined in the contract; or
- in support of the system performance criteria that are defined in the contract.

In addition, Fuel Tech uses letters of credit as security for other obligations as needed in the normal course of business. As of December 31, 2008, Fuel Tech had outstanding bank performance guarantees and letters of credit as noted in the table below:

<b>Commitment expiration by period in thousands of dollars</b>					
<b>Commercial Commitments</b>	<b>Total</b>	<b>Less than 1 year</b>	<b>2-3 years</b>	<b>4-5 years</b>	<b>Thereafter</b>
Standby letters of credit and bank guarantees	\$ 5,865	\$ 1,794	\$ 3,388	\$ 683	\$ -

The following table summarizes Fuel Tech's FIN 48 obligations as of December 31, 2008. Please refer to Note 3 to the consolidated financial statements in this document for a description of our FIN 48 obligations.

<b>Commitment expiration by period in thousands of dollars</b>					
<b>Commercial Commitments</b>	<b>Total</b>	<b>Less than 1 year</b>	<b>2-3 years</b>	<b>4-5 years</b>	<b>Thereafter</b>
FIN 48 Obligations	\$ 713	\$ -	\$ -	\$ -	\$ 713

#### **Off-Balance-Sheet Transactions**

There were no off-balance-sheet transactions during the two-year period ended December 31, 2008.

#### **Subsequent Events**

On January 5, 2009 Fuel Tech completed its acquisition of substantially all of the assets of Advanced Combustion Technology, Inc. and is currently in the process of allocating the purchase price to the fair market values of acquired tangible and intangible assets and assumed liabilities as of January 6, 2009.

## **ITEM 7A - QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Fuel Tech's earnings and cash flow are subject to fluctuations due to changes in foreign currency exchange rates. We do not enter into foreign currency forward contracts or into foreign currency option contracts to manage this risk due to the immaterial nature of the transactions involved.

Fuel Tech is also exposed to changes in interest rates primarily due to its long-term debt arrangement (refer to Note 8 to the consolidated financial statements). A hypothetical 100 basis point adverse move in interest rates along the entire interest rate yield curve would not have a materially adverse effect on interest expense during the upcoming year ended December 31, 2009.

## ITEM 8 - FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

### Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
Fuel Tech, Inc.

We have audited Fuel Tech, Inc (a Delaware corporation) and Subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2008 based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included the accompanying Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, Fuel Tech and Subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control – Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company as of December 31, 2008 and 2007 and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008, and our report dated March 5, 2009 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

Chicago, Illinois  
March 5, 2009

## Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
Fuel Tech, Inc.

We have audited the accompanying consolidated balance sheets of Fuel Tech, Inc. (a Delaware corporation) and Subsidiaries (the "Company") as of December 31, 2008 and 2007, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008. 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 Fuel Tech, Inc. and Subsidiaries as of December 31, 2008 and 2007 and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2008, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Company's internal control over financial reporting as of December 31, 2008, based on the criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated March 5, 2009 expressed an unqualified opinion on the effective operation of internal control over financial reporting.

/s/ GRANT THORNTON LLP

Chicago, Illinois  
March 5, 2009

Fuel Tech, Inc.  
Consolidated Balance Sheets  
(in thousands of dollars, except share and per-share data)

	2008	2007
<b>December 31</b>		
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 28,149	\$ 30,473
Short-term investments	-	1,998
Accounts receivable, net of allowance for doubtful accounts of \$80 and \$150, respectively	23,365	31,856
Inventories	1,014	186
Deferred income taxes	767	1,589
Prepaid expenses and other current assets	4,718	1,761
Total current assets	58,013	67,863
Property and equipment, net of accumulated depreciation of \$12,588 and \$10,091, respectively	17,515	11,302
Goodwill	5,158	2,119
Other intangible assets, net of accumulated amortization of \$1,504 and \$1,320, respectively	2,543	1,088
Deferred income taxes	2,412	2,552
Other assets	3,232	2,290
Total assets	\$ 88,873	\$ 87,214
 <b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Short-term debt	\$ 2,188	\$ 2,051
Accounts payable	8,196	13,632
Accrued liabilities:		
Employee compensation	510	2,304
Other accrued liabilities	2,773	4,733
Total current liabilities	13,667	22,720
Other liabilities	1,389	1,255
Total liabilities	15,056	23,975
Stockholders' equity:		
Common stock, \$.01 par value, 40,000,000 shares authorized, 24,110,967 and 22,410,064 shares issued, respectively	241	224
Additional paid-in capital	118,588	111,459
Accumulated deficit	(45,280)	(48,882)
Accumulated other comprehensive income	187	166
Nil coupon perpetual loan notes	81	272
Total stockholders' equity	73,817	63,239
Total liabilities and stockholders' equity	\$ 88,873	\$ 87,214

See notes to consolidated financial statements.

Fuel Tech, Inc.  
Consolidated Statements of Income  
(in thousands of dollars, except share and per-share data)

	2008	2007	2006
<b>For the years ended December 31</b>			
<b>Revenues</b>	\$81,074	\$80,297	\$75,115
<b>Costs and expenses:</b>			
Cost of sales	44,345	42,471	38,429
Selling, general and administrative	28,012	24,950	23,901
Research and development	2,100	2,137	2,052
	<u>74,457</u>	<u>69,558</u>	<u>64,382</u>
<b>Operating income</b>	6,617	10,739	10,733
Interest expense	(135)	(24)	-
Interest income	741	1,634	1,011
Other income (expense)	(226)	81	24
<b>Income before taxes</b>	6,997	12,430	11,768
Income taxes	(3,395)	(5,187)	(4,942)
<b>Net income</b>	<u>\$ 3,602</u>	<u>\$ 7,243</u>	<u>\$ 6,826</u>
<b>Net income per Common Share:</b>			
Basic	\$ 0.15	\$ 0.33	\$ 0.32
Diluted	\$ 0.15	\$ 0.29	\$ 0.28
<b>Weighted-average number of Common Shares outstanding:</b>			
Basic	23,608,000	22,280,000	21,491,000
Diluted	24,590,000	24,720,000	24,187,000

See notes to consolidated financial statements.

Fuel Tech, Inc.  
Consolidated Statements of Stockholders' Equity  
(in thousands of dollars or thousand of shares, as appropriate)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock		Nil Coupon Perpetual Loan Notes	Total
	Shares	Amount				Shares	Amount		
<b>Balance at January 1, 2006</b>	<b>20,424</b>	<b>\$ 204</b>	<b>\$ 91,559</b>	<b>\$ (62,870)</b>	<b>\$ (39)</b>	-	\$ -	<b>\$ 282</b>	<b>\$ 29,136</b>
Comprehensive income:									
Net income				6,826					6,826
Foreign currency translation adjustments					118				118
Comprehensive income									6,944
Exercise of stock options and warrants	1,662	17	3,809						3,826
Conversion of nil coupon perpetual loan notes into Common Shares	1		5					(5)	-
Tax benefit from stock compensation expense			5,944						5,944
Stock compensation expense			1,805						1,805
<b>Balance at December 31, 2006</b>	<b>22,087</b>	<b>\$ 221</b>	<b>\$ 103,122</b>	<b>\$ (56,044)</b>	<b>\$ 79</b>	-	\$ -	<b>\$ 277</b>	<b>\$ 47,655</b>
Comprehensive income:									
Net income				7,243					7,243
Foreign currency translation adjustments					87				87
Comprehensive income									7,330
Exercise of stock options and warrants	322	3	909						912
Conversion of nil coupon perpetual loan notes into Common Shares	1		5					(5)	-
Effect of FIN 48 adoption				(81)					(81)
Tax benefit from stock compensation expense			1,482						1,482
Stock compensation expense			4,791						4,791
Issuance of deferred shares of stock			1,150						1,150
<b>Balance at December 31, 2007</b>	<b>22,410</b>	<b>\$ 224</b>	<b>\$ 111,459</b>	<b>\$ (48,882)</b>	<b>\$ 166</b>	-	\$ -	<b>\$ 272</b>	<b>\$ 63,239</b>
Comprehensive income:									
Net income				3,602					3,602
Foreign currency translation adjustments					21				21
Comprehensive income									3,623
Exercise of stock options and warrants	1,657	17	602						619
Conversion of nil coupon perpetual loan notes into Common Shares	44		191					(191)	-
Tax benefit from stock compensation expense			548						548
Stock compensation expense			5,815						5,815
Issuance of deferred shares of stock			73						73
Reclassification of liability award			(100)						(100)
<b>Balance at December 31, 2008</b>	<b>24,111</b>	<b>\$ 241</b>	<b>\$ 118,588</b>	<b>\$ (45,280)</b>	<b>\$ 187</b>	-	\$ -	<b>\$ 81</b>	<b>\$ 73,817</b>

See notes to consolidated financial statements.

Fuel Tech, Inc.  
Consolidated Statements of Cash Flows  
(in thousands of dollars)

	2008	2007	2006
<b>For the years ended December 31</b>			
<b>OPERATING ACTIVITIES</b>			
Net income	\$ 3,602	\$ 7,243	\$ 6,826
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	2,810	2,353	1,961
Amortization	184	115	118
Effect of FIN 48 adoption	-	(81)	-
Loss on equipment disposals/impaired assets	35	18	-
Deferred income tax	962	1,716	(1,235)
Stock compensation expense	5,815	4,791	1,805
Changes in operating assets and liabilities:			
Accounts receivable	8,491	(15,132)	(3,491)
Inventories	(828)	17	155
Prepaid expenses, other current assets and other noncurrent assets	(3,899)	(906)	(1,046)
Accounts payable	(5,436)	6,000	1,139
Accrued liabilities and other noncurrent liabilities	(3,720)	(2,081)	1,927
Other	31	46	-
Net cash provided by operating activities	8,047	4,099	8,159
<b>INVESTING ACTIVITIES</b>			
Proceeds from sales of short-term investments	1,998	6,002	-
Purchases of short-term investments	-	-	(2,000)
Purchases of property, equipment and patents	(9,839)	(9,715)	(2,017)
Acquisition of businesses	(3,928)	-	-
Net cash used in investing activities	(11,769)	(3,713)	(4,017)
<b>FINANCING ACTIVITIES</b>			
Proceeds from short-term borrowings	137	2,051	-
Issuance of deferred shares	73	1,150	-
Proceeds from exercise of stock options and warrants	619	912	3,826
Excess tax benefit for stock-based compensation	548	1,482	5,944
Net cash provided by financing activities	1,377	5,595	9,770
Effect of exchange rate fluctuations on cash	21	87	118
Net increase (decrease) in cash and cash equivalents	(2,324)	6,068	14,030
Cash and cash equivalents at beginning of year	30,473	24,405	10,375
Cash and cash equivalents at end of year	\$ 28,149	\$ 30,473	\$ 24,405
Supplemental Cash Flow Information:			
Cash paid for:			
Interest	\$ 135	\$ 24	\$ -
Income taxes paid	\$ 5,905	\$ 173	\$ 217

See notes to consolidated financial statements.

## **1. ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES**

### **Organization**

Fuel Tech is a company that provides advanced engineering solutions for the optimization of combustion systems in utility and industrial applications. Fuel Tech's primary focus is on the worldwide marketing and sale of its NOx reduction technologies as well as its FUEL CHEM program. The Company's NOx reduction technologies reduce nitrogen oxide emissions from boilers, furnaces and other stationary combustion sources. Our FUEL CHEM program is based on proprietary TIFI Targeted In-Furnace Injection technology in the unique application of specialty chemicals to improve the efficiency, reliability and environmental status of combustion units by controlling slagging, fouling, corrosion, opacity and acid plume, as well as the formation of sulfur trioxide, ammonium bisulfate, particulate matter (PM<sub>2.5</sub>), carbon dioxide, NOx and unburned carbon in fly ash via the addition of chemicals into the boiler. Our business is materially dependent on the continued existence and enforcement of air quality regulations, particularly in the United States. We have expended significant resources in the research and development of new technologies in building our proprietary portfolio of air pollution control, fuel and boiler treatment chemicals, computer modeling and advanced visualization technologies.

International revenues were \$12,641, \$12,763 and \$17,487 for the years ended December 31, 2008, 2007 and 2006, respectively. These amounts represented 16%, 16% and 23% of Fuel Tech's total revenues for the respective periods of time. Foreign currency changes did not have a material impact on the calculation of these percentages. Fuel Tech has foreign offices in Beijing, China and in Gallarate, Italy.

### **Basis of Presentation**

The consolidated financial statements include the accounts of Fuel Tech and its wholly-owned subsidiaries. All intercompany transactions have been eliminated.

### **Use of Estimates**

The preparation of the financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company uses estimates in accounting for, among other items, revenue recognition, allowance for doubtful accounts, income tax provisions and warranty expenses. Actual results could differ from those estimates.

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

The carrying values of cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities are reasonable estimates of their fair value due to their short-term nature. The carrying amount of our short-term debt, revolving line of credit and notes approximates fair value because the majority of the amounts outstanding accrue interest at variable rates.

### **Cash Equivalents and Short-Term Investments**

Fuel Tech includes cash and investments having an original maturity of three months or less at the time of acquisition in cash and cash equivalents. Short-term investments consist of highly liquid investments having an original maturity of greater than three months which are recorded at cost, and have been classified as available for sale securities. Fuel Tech has never incurred realized or unrealized holding gains or losses on these securities. Income resulting from short-term investments is recorded as interest income.

### **Foreign Currency Risk Management**

Fuel Tech's earnings and cash flow are subject to fluctuations due to changes in foreign currency exchange rates. We do not enter into foreign currency forward contracts or into foreign currency option contracts to manage this risk due to the immaterial nature of the transactions involved.

### **Accounts Receivable**

Accounts receivable includes unbilled receivables, representing costs and estimated earnings in excess of billings on uncompleted contracts under the percentage of completion method. At December 31, 2008 and 2007, unbilled receivables were approximately \$5,552 and \$16,813 respectively.

### Allowance for Doubtful Accounts

In order to control and monitor the credit risk associated with our customer base, we review the credit worthiness of customers on a recurring basis. Factors influencing the level of scrutiny include the level of business the customer has with Fuel Tech, the customer's payment history and the customer's financial stability. Representatives of our management team review all past due accounts on a weekly basis to assess collectibility. At the end of each reporting period, the allowance for doubtful accounts balance is reviewed relative to management's collectibility assessment and is adjusted if deemed necessary. Our historical credit loss has been insignificant. The table below sets forth the components of the Allowance for Doubtful Accounts for the years ended December 31.

Year	Balance at January 1	Charged to costs and expenses	(Deductions)/Other	Balance at December 31
2006	\$ 150	-	-	\$ 150
2007	\$ 150	-	-	\$ 150
2008	\$ 150	-	\$ (70)	\$ 80

### Translation of Foreign Currency

Assets and liabilities of consolidated foreign subsidiaries are translated into U.S. dollars at exchange rates in effect at year end. Revenues and expenses are translated at average exchange rates prevailing during the year. Gains or losses on foreign currency transactions and the related tax effects are reflected in net income. The resulting translation adjustments are included in stockholders' equity as part of accumulated comprehensive income.

### Comprehensive Income

Other comprehensive income is defined as the change in equity resulting from transactions from non-owner sources. Comprehensive income differs from net income due to the effects of foreign currency translation.

### Research and Development

Research and development costs are expensed as incurred. Research and development projects funded by customer contracts are reported as part of cost of goods sold. Internally funded research and development expenses are reported as operating expenses.

### Product/System Warranty

Fuel Tech typically warrants its air pollution control products and systems against defects in design, materials, and workmanship for one to two years. A provision for estimated future costs relating to warranty expense is recorded when the products/systems become commercially operational.

### Goodwill and Other Intangibles

Goodwill and indefinite-lived intangible assets are not amortized, but are reviewed annually or more frequently if indicators arise, for impairment. The evaluation of impairment involves comparing the current fair value of the business to the carrying value. Fuel Tech uses a discounted cash flow (DCF) model to determine the current fair value of its two reporting units. A number of significant assumptions and estimates are involved in the application of the DCF model to forecast operating cash flows, including markets and market share, sales volumes and prices, costs to produce and working capital changes. Management considers historical experience and all available information at the time the fair values of its reporting units are estimated. However, actual fair values that could be realized in an actual transaction may differ from those used to evaluate the impairment of goodwill.

Fuel Tech allocates goodwill to reporting units based on the relative excess of fair value over carrying value of the reporting units. Fair value is determined as noted above. The ratio of each reporting unit's excess of fair value over carrying value, to the total excess of fair value over carrying value, is used as the basis for the allocation of the goodwill balance. Our fair value measurement test, performed annually as of October 1, revealed no indications of impairment.

Included with other intangible assets on the consolidated balance sheet are third-party costs related to the development of patents. As of December 31, 2008 and 2007, the net patent asset balance was \$249 and \$199, respectively. The third-party costs capitalized during the years ended December 31, 2008 and 2007 were \$60 and \$53, respectively. Third-party costs are comprised of legal fees that relate to the review and preparation of patent disclosures and filing fees incurred to present the patents to the required governing body.

Fuel Tech's intellectual property has been the primary building block for the Air Pollution Control and FUEL CHEM technology segments. The patents are essential to the generation of revenue for our businesses and are essential to protect us from competition in the markets in which it serves. These costs are being amortized on the straight-line method over a period of 10 years from the date of patent issuance. Patent maintenance fees are charged to operations as incurred.

Fuel Tech reviews other intangible assets, which include customer lists and relationships, covenants not to compete, patent assets and acquired technologies, for impairment on a recurring basis or when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. In the event the sum of the expected undiscounted future cash flows resulting from the use of the asset is less than the carrying amount of the asset, an impairment loss equal to the excess of the asset's carrying value over its fair value is recorded. Management considers historical experience and all available information at the time the estimates of future cash flows are made, however, the actual cash values that could be realized may differ from those that are estimated. For the years ended December 31, 2008, 2007 and 2006 the impact of impairment losses was \$0, \$7 and \$0, respectively. Such amounts are recorded in the "Research and development" line item in the consolidated statements of income.

The table below shows the amortization period and other intangible asset cost by intangible asset as of December 31, 2008 and 2007, and the accumulated amortization and net intangible asset value in total for all other intangible assets.

Description of Other Intangible	Amortization Period		
		2008	2007
Customer list	3-15 years	\$ 1,548	\$ 1,198
Patent asset	10 years	1,170	1,110
Covenant not to compete	5-6 years	336	100
Technologies	3-8 years	603	-
Miscellaneous	3-7 years	<u>390</u>	<u>-</u>
Total cost		4,047	\$ 2,408
Less accumulated amortization		<u>(1,504)</u>	<u>(1,320)</u>
Total net intangible asset value		\$ 2,543	\$ 1,088

The estimated amortization expense related to Fuel Tech's intangible assets is expected to approximate \$300 per year for the four-year period ending December 31, 2012, and \$200 for the year ending December 31, 2013.

### Property and Equipment

Equipment is stated at historical cost. Provisions for depreciation are computed by the straight-line method, using estimated useful lives. The table below shows the depreciable life and cost by asset class as of December 31, 2008 and 2007, and the accumulated depreciation and net book value in total for all classes of assets.

Description of Property and Equipment	Depreciable Life		
		2008 Cost	2007 Cost
Land		\$ 1,440	\$ 1,440
Building	39 years	4,857	4,857
Leasehold Improvements	3-39 years	4,719	-
Field equipment	3-4 years	13,714	10,405
Computer equipment and software	2-3 years	3,527	2,996
Furniture and fixtures	3-10 years	1,823	1,673
Vehicles	3 years	<u>22</u>	<u>22</u>
Total cost		\$ 30,102	\$ 21,393
Less accumulated depreciation		<u>(12,587)</u>	<u>(10,091)</u>
Total net book value		\$ 17,515	\$ 11,302

## Revenue Recognition

Revenues from the sales of chemical products are recorded when title transfers, either at the point of shipment or at the point of destination, depending on the contract with the customer.

Fuel Tech uses the percentage of completion method of accounting for equipment construction and license contracts that are sold within the Air Pollution Control technology segment. Under the percentage of completion method, revenues are recognized as work is performed based on the relationship between actual construction costs incurred and total estimated costs at completion. Revisions in completion estimates and contract values in the period in which the facts giving rise to the revisions become known can influence the timing of when revenues are recognized under the percentage of completion method of accounting. Provisions are made for estimated losses on uncompleted contracts in the period in which such losses are determined. As of December 31, 2008 and December 31, 2007, Fuel Tech had no construction contracts in progress that were identified as loss contracts.

## Distribution Costs

Fuel Tech classifies shipping and handling costs in cost of sales in the consolidated statement of income.

## Income Taxes

Deferred tax assets and liabilities are determined based on the differences between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse.

At the end of each reporting period, for financial statement purposes, Fuel Tech reviews the realizability of the deferred tax assets. As part of this review, we will consider if there are taxable temporary differences that could generate taxable income in the future, if there is the ability to carryback the net operating losses or credits, if there is a projection of future taxable income, and if there are any tax planning strategies that can be readily implemented. The table below sets forth the components of the Valuation Allowance for Deferred Tax Assets for the years ended December 31.

Year	Balance at January 1	Charged to costs and expenses	(Deductions)/Other	Balance at December 31
2006	\$ 45	\$ 215	-	\$ 260
2007	\$ 260	-	-	\$ 260
2008	\$ 260	-	-	\$ 260

## Stock-Based Compensation

Fuel Tech has a stock-based employee compensation plan, referred to as the Fuel Tech, Inc. Incentive Plan (Incentive Plan), under which awards may be granted to participants in the form of Non-Qualified Stock Options, Incentive Stock Options, Stock Appreciation Rights, Restricted Stock, Performance Awards, Bonuses or other forms of share-based or non-share-based awards or combinations thereof. Participants in the Incentive Plan may be Fuel Tech's directors, officers, employees, consultants or advisors (except consultants or advisors in capital-raising transactions) as the directors determine are key to the success of our business. The amount of shares that may be issued or reserved for awards to participants under a 2004 amendment to the Incentive Plan is 12.5% of outstanding shares calculated on a diluted basis. In 2008, 2007 and 2006, 757,250, 310,500 and 1,094,000 options, respectively, were granted to employees and directors. At December 31, 2008, Fuel Tech had 471,712 stock options available for issuance under the Incentive Plan.

Effective January 1, 2006, Fuel Tech adopted the fair value recognition provisions of FASB Statement No. 123(R), "Share-Based Payment" (SFAS 123R) using the modified-prospective transition method. Under that transition method, compensation cost recognized for the year ended December 31, 2008 includes: (a) compensation cost for all share-based payments granted prior to, but not yet vested as of January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions of Statement 123, and (b) compensation cost for all share-based payments granted subsequent to January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R. Accordingly, results for prior periods have not been restated.

## Basic and Diluted Earnings per Common Share

Basic earnings per share excludes the dilutive effects of stock options and stock warrants and of the nil coupon non-redeemable convertible unsecured loan notes (see Note 5). Diluted earnings per share includes the dilutive effect of the nil coupon non-redeemable convertible unsecured loan notes and of in-the-money stock options and stock warrants. The table below sets forth the weighted-average shares used at December 31 in calculating earnings per share:

	2008	2007	2006
Basic weighted-average shares	23,608,000	22,280,000	21,491,000
Conversion of unsecured loan notes	43,000	45,000	46,000
Unexercised options and warrants	<u>939,000</u>	<u>2,395,000</u>	<u>2,650,000</u>
Diluted weighted-average shares	24,590,000	24,720,000	24,187,000

## Recently Adopted Accounting Standards

In September 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standard No. 157, "Fair Value Measurements" (SFAS 157), which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS 157 does not require any new fair value measurements, but provides guidance on how to measure fair value by providing a fair value hierarchy used to classify the source of the information. This statement is effective for fiscal years beginning after November 15, 2007. On February 14, 2008, the FASB issued FSP FAS No. 157-1 "Application of FASB Statement No. 157 to FASB Statement 13 and Other Accounting Pronouncements That Address Fair Value Measurements for Purposes of Lease Classification or Measurement Under Statement 13" (SFAS 157-1) that amends SFAS 157 to exclude its application for purposes of lease classification or measurement under SFAS 13. On February 12, 2008, the FASB issued Staff Position Financial Accounting Standard (FSP FAS) No. 157-2 "Effective Date of FASB Statement No. 157" (FSP 157-2) that amends SFAS 157 to delay the effective date for all non-financial assets and non-financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis to fiscal years beginning after November 15, 2008. The Company adopted the required provisions of SFAS 157-1 effective January 1, 2008 and there was no material effect on its consolidated financial statements. The Company has adopted FSP 157-2 to delay the adoption effects related to non-financial assets and does not anticipate there will be a material effect on its consolidated financial statements. In October 2008, the FASB issued FSP 157-3, "Determining the Fair Value of a Financial Asset in a Market That Is Not Active." The FSP was effective upon issuance, including periods for which financial statements have not been issued. The FSP clarified the application of SFAS 157 in an inactive market and provided an illustrative example to demonstrate how the fair value of a financial asset is determined when the market for that financial asset is inactive. The adoption of this FSP FAS 157-3 did not have a material impact on the Company's consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), "Business Combinations" (SFAS 141R). SFAS 141R establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any noncontrolling interest in the acquiree and the goodwill acquired. SFAS 141R also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. SFAS 141R is effective for financial statements issued for fiscal years beginning after December 15, 2008. The Company is currently evaluating the potential impact of adoption of SFAS 141R on its consolidated financial statements. However, the Company does not expect the adoption of SFAS 141R to have a material effect on its consolidated financial statements.

In April 2008, the FASB issued FASB Staff Position No. FAS 142-3, *Determination of the Useful Life of Intangible Assets* ("FSP No. FAS 142-3"). FSP No. FAS 142-3 requires companies estimating the useful life of a recognized intangible asset to consider their historical experience in renewing or extending similar arrangements or, in the absence of historical experience, to consider assumptions that market participants would use about renewal or extension as adjusted for SFAS 142's, *Goodwill and Other Intangible Assets*, entity-specific factors. FSP No. FAS 142-3 will be effective for fiscal years beginning after December 15, 2008. The Company is currently evaluating the potential impact of adoption of FSP No. FAS 142-3 on its consolidated financial statements. However, the Company does not expect the adoption of FSP No. FAS 142-3 to have a material effect on its consolidated financial statements.

In May 2008, the FASB issued Statement of Financial Accounting Standards No. 162, "The Hierarchy of Generally Accepted Accounting Principles" (SFAS 162). SFAS 162 identifies the sources of accounting principles and the framework for selecting the principles used in the preparation of financial statements that are presented in conformity with generally accepted accounting principles. SFAS 162 becomes effective 60 days following the SEC's approval of the Public Company Accounting Oversight Board amendments to AU Section 411, "The Meaning of Present Fairly in Conformity With Generally Accepted Accounting Principles." The Company does not expect that the adoption of SFAS 162 to have a material effect on its consolidated financial statements.

## 2. CONSTRUCTION CONTRACTS IN PROGRESS

The status of contracts in progress as of December 31, 2008 and 2007 is as follows:

	2008	2007
Costs incurred on uncompleted contracts	\$ 18,220	\$ 17,050
Estimated earnings	14,882	15,247
Earned revenue	33,102	32,296
Less billings to date	(28,773)	(16,303)
Total	<u>\$ 4,330</u>	<u>\$ 15,993</u>
Classified as follows:		
Costs and estimated earnings in excess of billings on uncompleted contracts	\$ 5,552	\$ 16,813
Billings in excess of costs and estimated earnings on uncompleted contracts	(1,223)	(821)
Total	<u>\$ 4,330</u>	<u>\$ 15,993</u>

Costs and estimated earnings in excess of billings on uncompleted contracts are included in accounts receivable on the consolidated balance sheet, while billings in excess of costs and estimated earnings on uncompleted contracts are included in other accrued liabilities on the consolidated balance sheet.

As of December 31, 2008 and 2007, Fuel Tech had no construction contracts in progress that were identified as loss contracts.

## 3. TAXATION

The components of income (loss) before taxes for the years ended December 31 are as follows:

Origin of income (loss) before taxes	2008	2007	2006
United States	\$ 8,353	\$ 13,242	\$ 13,279
Foreign	(1,356)	(812)	(1,511)
Income before taxes	\$ 6,997	\$ 12,430	\$ 11,768

Significant components of income tax expense for the years ended December 31 are as follows:

	2008	2007	2006
Current:			
Federal	\$ 1,395	\$ 1,401	\$ 144
State	411	588	29
Other	(84)	-	60
Total current	<u>\$ 1,722</u>	<u>\$ 1,989</u>	<u>\$ 233</u>
Deferred:			
Federal	1,612	3,183	4,314
State	61	15	180
Change in valuation allowance	-	-	215
Total deferred	<u>1,673</u>	<u>3,198</u>	<u>4,709</u>
Income tax expense	<u>\$ 3,395</u>	<u>\$ 5,187</u>	<u>\$ 4,942</u>

A reconciliation between the provision for income taxes calculated at the U.S. federal statutory income tax rate and the consolidated income tax benefit in the consolidated statements of income for the years ended December 31 is as follows:

	2008	2007	2006
Provision at the U.S. federal statutory rate	\$ 2,449	\$ 4,351	\$ 4,119
State taxes, net of federal benefit	311	405	187
Foreign losses without tax benefit	391	284	588
Research credits	(77)	(63)	(229)
Other	321	210	62
Valuation allowance adjustment	-	-	215
Income tax expense	<u>\$ 3,395</u>	<u>\$ 5,187</u>	<u>\$ 4,942</u>

The table below depicts the data above on a percentage basis:

	2008	2007	2006
Provision at the U.S. federal statutory rate	35.0%	35.0%	35.0%
State taxes, net of federal benefit	4.4%	3.3%	1.6%
Foreign losses without tax benefit	5.6%	2.3%	5.0%
Research credits	(1.1)%	(.5)%	(1.9)%
Other	4.6%	1.6%	.5%
Valuation allowance adjustment	-%	-%	1.8%
Income tax expense	48.5%	41.7%	42.0%

The deferred tax assets and liabilities at December 31 are as follows:

	2008	2007
Deferred tax assets:		
Stock compensation expense	\$ 4,238	\$ 2,306
Research and development credit	492	1,302
Equipment	-	648
Alternative minimum tax credit	275	275
Warranty reserve	101	176
Accounts receivable	30	57
Vacation accrual	45	40
Deferred rent liability	49	33
Effect of FIN 48 adoption	13	7
Intangible assets	11	-
Net operating loss carryforwards	84	-
Total deferred tax assets	5,338	4,844
Deferred tax liabilities:		
Equipment	(975)	-
Prepaid expenses	(361)	-
Patents	(94)	(76)
Goodwill	(469)	(367)
Total deferred tax liabilities	(1,899)	(443)
Net deferred tax asset before valuation allowance	\$ 3,349	\$ 4,401
Valuation allowances for deferred tax assets	(260)	(260)
Net deferred tax asset	\$ 3,179	\$ 4,141

Net deferred tax assets and liabilities are recorded as follows within the consolidated balance sheets:

Current assets	\$ 767	\$ 1,589
Long-term assets	2,412	2,552
Net deferred tax asset	\$ 3,179	\$ 4,141

For the years ended December 31, 2008 and 2007, Fuel Tech recorded tax benefits from the exercise of stock options in the amount of \$548 and \$1,482, respectively. The amounts were recorded as an increase in additional paid-in capital on the consolidated balance sheets and as cash from financing activities on the consolidated statements of cash flows. With our adoption of SFAS 123R on January 1, 2006, all subsequent tax benefits from the exercise of stock options were recorded as cash flows from financing activities.

State and Federal income tax payments during the years ended December 31, 2008, 2007 and 2006 were \$5,905, \$173 and \$217, respectively.

In July 2006, the FASB issued FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes - an interpretation of FASB Statement No. 109," (FIN 48). FIN 48 prescribes a comprehensive model for how a company should recognize, measure, present and disclose in its financial statements uncertain tax positions that it has taken or expects to take on a tax return. On January 17, 2007, the FASB affirmed its previous decision to make FIN 48 effective for fiscal years beginning after December 15, 2006. Accordingly, Fuel Tech adopted the provisions of FIN 48 on January 1, 2007.

Previously, Fuel Tech had accounted for tax contingencies in accordance with Statement of Financial Accounting Standards 5, Accounting for Contingencies. As required by FIN 48, which clarifies Statement 109, Accounting for Income Taxes, Fuel Tech recognizes the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more-likely-than-not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement with the relevant tax authority. At the adoption date, we applied FIN 48 to all tax positions for which the statute of limitations remained open. As a result of the implementation of FIN 48, we recognized an increase of approximately \$86 in the liability for unrecognized tax benefits, of which \$81 was accounted for as a reduction to the January 1, 2007 balance of retained earnings.

The following table summarizes Fuel Tech's unrecognized tax benefit activity during 2008:

Description	Balance
Balance at January 1, 2008	\$ 678
Increases in positions taken in a prior period	-
Decreases in positions taken in a prior period	-
Increases in positions taken in a current period	35
Decreases in positions taken in a current period	-
Decreases due to settlements	-
Decreases due to lapse of statute of limitations	-
Balance at December 31, 2008	\$ 713

The amount of unrecognized tax benefits as of December 31, 2008, including interest and penalties, was \$781. This amount included \$747 of unrecognized tax benefits which, if ultimately recognized, will reduce Fuel Tech's annual effective tax rate.

Fuel Tech is subject to income taxes in the U.S. federal jurisdiction, and various states and foreign jurisdictions. Tax regulations within each jurisdiction are subject to the interpretation of the related tax laws and regulations and require significant judgment to apply. With few exceptions, we are no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities for the years before 2004.

Fuel Tech recognizes interest and penalties accrued related to unrecognized tax benefits in income tax expense for all periods presented. Fuel Tech had accrued approximately \$68 for the payment of interest and penalties at December 31, 2008.

The management of Fuel Tech periodically estimates the probable tax obligations of the Company using historical experience in tax jurisdictions and informed judgments. There are inherent uncertainties related to the interpretation of tax regulations in the jurisdictions in which we transact business. The judgments and estimates made at a point in time may change based on the outcome of tax audits, as well as changes to or further interpretations of regulations. If such changes take place, there is a risk that the tax rate may increase or decrease in any period. Tax accruals for tax liabilities related to potential changes in judgments and estimates for both federal and state tax issues are included in current liabilities on the consolidated balance sheet.

At December 31, 2008, Fuel Tech has tax losses of \$4,035 available to offset foreign income. The foreign loss carryforwards began to expire in 2008 and at December 31, 2008 a valuation allowance of \$3,699 is recorded against this amount.

#### 4. COMMON SHARES

At December 31, 2008, Fuel Tech had 24,110,967 Common Shares issued, with an additional 7,485 shares reserved for issuance upon conversion of the nil coupon non-redeemable convertible unsecured loan notes (see Note 5) and 2,905,325 shares reserved for issuance upon the exercise of stock options, 1,461,700 of which are currently exercisable (see Note 6).

#### 5. NIL COUPON NON-REDEEMABLE CONVERTIBLE UNSECURED LOAN NOTES

At December 31, 2008, 2007 and 2006, respectively, Fuel Tech had principal amounts of \$81, \$272 and \$277 of nil coupon non-redeemable convertible unsecured perpetual loan notes (the "Loan Notes") outstanding. The Loan Notes are convertible at any time into Common Shares at rates of \$6.50 or \$11.43 per share, as appropriate. The Loan Notes bear no interest and have no maturity date. They are repayable in the event of Fuel Tech's dissolution and, accordingly, have been classified within stockholders' equity in the accompanying balance sheet.

In 2008, Loan Notes in the principal amount of \$191 were converted into 43,845 Common Shares. In 2007 and 2006, Loan Notes in the principal amount of \$5 and \$5, respectively, were converted into 769 and 769 Common Shares, respectively.

## 6. STOCK-BASED COMPENSATION AND WARRANTS

Fuel Tech has a stock-based employee compensation plan, referred to as the Fuel Tech, Inc. Incentive Plan (Incentive Plan), under which awards may be granted to participants in the form of Non-Qualified Stock Options, Incentive Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Awards, Bonuses or other forms of share-based or non-share-based awards or combinations thereof. Participants in the Incentive Plan may be Fuel Tech's directors, officers, employees, consultants or advisors (except consultants or advisors in capital-raising transactions) as the directors determine are key to the success of Fuel Tech's business. The amount of shares that may be issued or reserved for awards to participants under a 2004 amendment to the Incentive Plan is 12.5% of outstanding shares calculated on a diluted basis. In 2008, 2007 and 2006, 757,000, 311,000, 1,094,000 options, respectively, were granted to employees and directors. At December 31, 2008, Fuel Tech had 472,000 stock options available for issuance under the Incentive Plan.

Fuel Tech uses the Black-Scholes options-pricing model to estimate the fair value of employee stock options for the required pro forma disclosure under Statement 123(R). For the year ended December 31, 2008, Fuel Tech recorded stock-based compensation expense of \$5,815 (\$3,882 after tax). The Company recorded \$4,791 (\$3,105 after tax) in stock-based compensation expense for the comparable period in 2007.

As of December 31, 2008, there was \$11.4 million of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted under the 1993 Plan. That cost is expected to be recognized over a period of four years.

The awards granted under the Incentive Plan have a 10-year life and they vest as follows: 50% after the second anniversary of the award date, 25% after the third anniversary, and the final 25% after the fourth anniversary of the award date. Fuel Tech calculates stock compensation expense based on the grant date fair value of the award and recognizes expense on a straight-line basis over the four-year service period of the award.

The principal variable assumptions utilized in valuing options and the methodology for estimating such model inputs include: (1) risk-free interest rate – an estimate based on the yield of zero-coupon treasury securities with a maturity equal to the expected life of the option; (2) expected volatility – an estimate based on the historical volatility of Fuel Tech's Common Stock for a period equal to the expected life of the option; and (3) expected life of the option – an estimate based on historical experience including the effect of employee terminations.

Based on the results of the model, the weighted-average fair value of the stock options granted during the 12-month periods ended December 31, 2008, 2007 and 2006, respectively was \$9.65, \$14.01 and \$12.53 per share using the following assumptions:

	<b>2008</b>	<b>2007</b>	<b>2006</b>
Expected dividend yield	0.00%	0.00%	0.00%
Risk-free interest rate	2.85%	4.39%	4.64%
Expected volatility	59.3%	57.4%	60.7%
Expected life of option	5.2 years	5.2 years	5.2 years

The following table presents a summary of Fuel Tech's stock option activity and related information for the years ended December 31:

	2008		2007		2006	
	Number of Options	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price
Outstanding at beginning of year	2,464,325	\$ 15.03	2,414,200	\$ 13.02	2,799,000	\$ 4.29
Granted	757,250	18.05	310,500	25.80	1,094,000	22.06
Exercised	(171,125)	3.61	(188,875)	4.83	(1,332,925)	2.88
Expired or forfeited	<u>(145,125)</u>	18.69	<u>(71,500)</u>	20.82	<u>(145,875)</u>	5.91
Outstanding at end of year	<u>2,905,325</u>	\$ 16.30	<u>2,464,325</u>	\$ 15.03	<u>2,414,200</u>	\$ 13.02
Exercisable at end of year	1,461,700	\$ 12.92	955,825	\$ 7.11	711,450	\$ 5.22
Weighted-average fair value of options granted during the year		\$ 9.65		\$ 14.01		\$ 12.53

The following table provides additional information regarding Fuel Tech's stock option activity for the 12 months ended December 31, 2008.

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding on January 1, 2008	2,464,325	\$ 15.03		
Granted	757,250	18.05		
Exercised	(171,125)	3.61		\$ 2,106
Expired or forfeited	<u>(145,125)</u>	18.69		
Outstanding on December 31, 2008	<u>2,905,325</u>	\$ 16.30	7.49 years	\$ 4,044
Exercisable on December 31, 2008			6.44 years	\$ 3,798

The following table summarizes information about stock options outstanding at December 31, 2008:

Options Outstanding			Options Exercisable		
Range of Exercise Prices	Number of Options	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price
\$ 1.47 - \$ 5.51	451,700	4.89 years	\$ 4.19	446,200	\$ 4.17
\$ 5.52 - \$ 11.03	536,125	6.40 years	\$ 7.96	380,250	\$ 7.56
\$ 11.04 - \$ 22.06	792,000	8.57 years	\$ 16.19	167,500	\$ 14.09
\$ 22.07 - \$ 27.57	<u>1,125,500</u>	8.31 years	\$ 25.22	<u>467,750</u>	\$ 25.20
\$ 1.47 - \$ 27.57	2,905,325	7.49 years	\$ 16.30	1,461,700	\$ 12.92

The weighted-average exercise price per non-vested stock award at grant date was \$17.55 per share for the non-vested stock awards granted in 2008. Non-vested stock award activity for all plans for the 12 months ended December 31, 2008 was as follows:

	Non-Vested Stock Outstanding	Weighted-Average Grant Date Fair Value
Outstanding on January 1, 2008	1,508,500	\$ 11.08
Granted	757,250	9.65
Released	(682,000)	10.36
Expired or forfeited	<u>(140,125)</u>	10.36
Outstanding on December 31, 2008	<u>1,443,625</u>	\$ 10.75

At December 31, 2008, Fuel Tech had 1,577,500 stock options with exercise prices per share that were not dilutive for the purpose of inclusion in the calculation of diluted earnings per share.

On November 10, 2005, the FASB issued Staff Position No. 123(R)-3, Transition Election Related to Accounting for Tax Effects of Share-Based Payment Awards, or Staff Position 123(R)-3. Fuel Tech has elected to adopt the alternative transition method provided in Staff Position 123(R)-3 for calculating the tax effects of stock-based compensation pursuant to Statement 123(R). The alternative transition method simplifies the calculation of the beginning balance of the additional paid-in-capital pool, or APIC pool, related to the tax effect of employee stock-based compensation. This method also has subsequent impact on the APIC pool and the condensed consolidated statements of cash flows relating to the tax effects of employee stock-based compensation awards that are outstanding upon adoption of Statement 123(R).

In addition to the Incentive Plan, Fuel Tech has a Deferred Compensation Plan for Directors (Deferred Plan). This Deferred Plan, as originally approved, provided for deferral of Directors' fees in the form of either cash with interest or as "phantom stock" units, in either case, however, to be paid out only as cash and not as stock at the elected time of payout. In the second quarter of 2007, Fuel Tech obtained stockholder approval for an amendment to the Deferred Plan to provide that instead of phantom stock units paid out only in cash, the deferred stock unit compensation may be paid out in shares of Fuel Tech Common Stock. Under the guidance of Statement 123(R), this plan modification required that Fuel Tech account for awards under the plan for the receipt of Fuel Tech Common Stock, as equity awards as opposed to liability awards. In 2008 and 2007, Fuel Tech recorded \$73 and \$150, respectively, of stock-based compensation expense under the Deferred Plan.

In addition to the above, at December 31, 2007, Fuel Tech had 1,601,043 warrants outstanding to purchase Common Shares at an exercise price of \$1.75. As of December 31, 2008, all of these warrants had been exercised.

## 7. COMMITMENTS

### Operating Leases

Fuel Tech leases office space, autos and certain equipment under agreements expiring on various dates through 2014. Future minimum lease payments under non-cancellable operating leases that have initial or remaining lease terms in excess of one year as of December 31, 2008 are as follows:

Year of Payment	Amount
2009	\$ 663
2010	279
2011	249
2012	251
Thereafter	278

For the years ended December 31, 2008, 2007 and 2006, rent expense approximated \$1,300, \$852 and \$829, respectively.

Fuel Tech has a sublease agreement with American Bailey Corporation (ABC) that obligates the lessee to make future payments. ABC will reimburse Fuel Tech for its share of lease and lease-related expenses under Fuel Tech's January 29, 2004 lease of its executive offices in Stamford, Connecticut. Please refer to Note 9 to the consolidated financial statements for a discussion of the relationship between Fuel Tech and ABC. The future minimum lease income under this noncancellable sublease as of December 31, 2008 is as follows:

Year of Payment	Amount
2009	\$ 81
2010	7
2011	-
2012	-
Thereafter	-

The terms of the three primary lease arrangements are as follows:

- The Stamford, Connecticut building lease term, for approximately 7,000 square feet, runs from February 1, 2004 to January 31, 2010. The facility houses certain administrative functions such as Investor Relations, Benefit Plan Administration and certain APC sales functions.
- The Beijing, China building lease term, for approximately 4,000 square feet, runs from September 1, 2007 to August 31, 2009. This facility serves as the operating headquarters for our Beijing Fuel Tech operation. Fuel Tech has the option to extend the lease term at a market rate to be agreed upon between Fuel Tech and the lessor.
- The Durham, North Carolina building lease term, for approximately 16,000 square feet, runs from November 1, 2005 to April 30, 2014. This facility houses the former Tackticks and FlowTack operations. Fuel Tech has no option to extend the lease.

In addition to the above, on November 30, 2007, Fuel Tech purchased an office building in Warrenville, Illinois, which has served as our corporate headquarters since June 23, 2008. Our prior headquarters, an 18,000 square foot location in Batavia, Illinois, remains under an operating lease until May 31, 2009. We have no plans to renew this lease.

### Performance Guarantees

The majority of Fuel Tech's long-term equipment construction contracts contain language guaranteeing that the performance of the system that is being sold to the customer will meet specific criteria. On occasion, bank performance guarantees and letters of credit are issued to the customer in support of the construction contracts as follows:

- in support of the warranty period defined in the contract; or
- in support of the system performance criteria that are defined in the contract.

As of December 31, 2008, Fuel Tech has outstanding bank performance guarantees and letters of credit in the amount of \$5,765

in support of equipment construction contracts that have not completed their final acceptance test or that are still operating under a warranty period. Fuel Tech's management believes that these projects will be successfully completed and that there will not be a materially adverse impact on Fuel Tech's operations from these bank performance guarantees and letters of credit.

### Product Warranties

Fuel Tech issues a standard product warranty with the sale of its products to customers. Our recognition of warranty liability is based primarily on analyses of warranty claims experience in the preceding years. Changes in the warranty liability in 2008, 2007 and 2006 are summarized below:

	2008	2007	2006
Aggregate product warranty liability at beginning of year	\$ 464	\$ 472	\$ 247
Net aggregate accruals related to product warranties	(45)	88	280
Aggregate reductions for payments	<u>(154)</u>	<u>(96)</u>	<u>(55)</u>
Aggregate product warranty liability at end of year	\$ 265	\$ 464	\$ 472

## 8. DEBT FINANCING

Fuel Tech has a domestic \$25.0 million revolving credit facility expiring July 31, 2009. The facility is unsecured and bears interest at a rate of LIBOR plus 75 basis points. The Company can use this facility for cash advances and standby letters of credit. As of December 31, 2008 and 2007, there were no outstanding borrowings on this facility.

At December 31, 2008, the Company had outstanding standby letters of credit and bank guarantees, predominantly to customers, totaling approximately \$5,865 in connection with contracts in process. Fuel Tech is committed to reimbursing the issuing bank for any payments made by the bank under these instruments. At December 31, 2008, there were no cash borrowings under the revolving credit facility and approximately \$19,135 was available.

During 2008 and 2007, under the domestic \$25.0 million facility, the Company requested and received a waiver to enable us to exceed the capital spending covenant specified in the facility agreement to accommodate our purchase of land and building for our new corporate headquarters and the subsequent build out and furnishing of the premises. During 2008, the Company also requested and received a waiver to enable us to exceed the allowable acquisition spending covenant specified in the facility agreement to accommodate our strategic acquisitions.

Beijing Fuel Tech Environmental Technologies Company, Ltd. (Beijing Fuel Tech), a wholly-owned subsidiary of Fuel Tech, entered into a revolving credit facility agreement during the third quarter of 2007 for RMB 35 million (approximately \$4.8 million), which expires on July 31, 2009. The facility is unsecured and bears interest at a rate of 90% of the People's Bank of China (PBOC) Base Rate. Beijing Fuel Tech can use this facility for cash advances and bank guarantees. At December 31, 2008, Beijing Fuel Tech had borrowings outstanding in the amount of \$2,188.

Interest payments in the amount of \$135 and \$24 were made during the years ended December 31, 2008 and 2007, respectively. No payments were made during the year ended December 31, 2006.

## 9. RELATED PARTY TRANSACTIONS

As of December 31, 2008, Fuel Tech had a 4.5% common stock ownership interest in Clean Diesel Technologies, Inc. (CDT), which is being accounted for using the cost method. Fuel Tech is precluded from selling its interest in CDT except pursuant to a registration statement, or in a broker/dealer transaction within the limitations of Rule 144 of the Securities and Exchange Commission (SEC), or in an exempt private placement within the limitations of Rule 144 of the SEC. Fuel Tech's investment in CDT, whose shares are publicly traded on The NASDAQ Stock Market and the London Stock Exchange, had a market value of \$1,004 at December 31, 2008. Fuel Tech also owns 5,000 warrants to purchase CDT common stock. The warrants have an exercise price of \$10.00 and can be exercised on or before November 14, 2010.

On August 3, 1995, Fuel Tech signed a Management and Services Agreement with CDT. According to the agreement, CDT is to reimburse Fuel Tech for management, services and administrative expenses incurred by Fuel Tech on behalf of CDT. Additionally, Fuel Tech charges CDT an additional 3% of such costs annually. For the years ended December 31, 2008, 2007 and 2006, \$72, \$72 and \$71, respectively, was charged to CDT as a management fee.

Pursuant to an assignment agreement of certain technology to CDT, Fuel Tech is due royalties from CDT of 2.5% of CDT's annual revenue from sales of CDT's Platinum Fuel Catalyst, commencing in 1998. The royalty obligation expired in 2008. Over the life of the royalty agreement, Fuel Tech received approximately \$61 in royalties.

Persons now or formerly associated with American Bailey Corporation (ABC) currently own approximately 25% of Fuel Tech's Common Shares. On April 30, 1998, Fuel Tech entered into an agreement with ABC for it to provide certain management and consulting services to Fuel Tech. Effective January 1, 2004, this agreement was revised whereby ABC reimburses Fuel Tech for services that certain employees of Fuel Tech provide to ABC. In addition, ABC is a sub-lessee under Fuel Tech's January 29, 2004 lease of its offices in Stamford, Connecticut. ABC reimburses Fuel Tech for its share of lease and lease-related expenses under the sublease agreement. Please refer to Note 7 to the consolidated financial statements for a further discussion of this topic. At December 31, 2008, \$23 is due from ABC related to the compensation and sublease agreements.

## 10. DEFINED CONTRIBUTION PLAN

Fuel Tech has a retirement savings plan available for all U.S. employees who have met minimum length-of-service requirements. Our contributions are determined based upon amounts contributed by Fuel Tech's employees with additional contributions made at the discretion of Fuel Tech's Board of Directors. Costs related to this plan were \$851, \$802 and \$612 in 2008, 2007 and 2006, respectively.

## 11. BUSINESS SEGMENT, GEOGRAPHIC AND QUARTERLY FINANCIAL DATA

### Business Segment Financial Data

Fuel Tech segregates its financial results into two reportable segments representing two broad technology segments as follows:

- The Air Pollution Control technology segment, which includes the NOxOUT<sup>®</sup>, NOxOUT CASCADE<sup>®</sup>, GSG, NOxOUT ULTRA<sup>®</sup> and NOxOUT-SCR<sup>®</sup> processes for the reduction of NOx emissions in flue gas from boilers, incinerators, furnaces and other stationary combustion sources; and
- The FUEL CHEM technology segment, which uses chemical processes for the control of slagging, fouling, corrosion, opacity, acid plume and sulfur trioxide-related issues in furnaces and boilers through the addition of chemicals into the fuel using TIFT<sup>™</sup> Targeted In-Furnace Injection<sup>™</sup> technology.

The "Other" classification includes those profit and loss items not allocated by Fuel Tech to each reportable segment. Further, there are no intersegment sales that require elimination.

Fuel Tech evaluates performance and allocates resources based on reviewing gross margin by reportable segment. The accounting policies of the reportable segments are the same as those described in the summary of significant accounting policies. Fuel Tech does not review assets by reportable segment, but rather, in aggregate for Fuel Tech as a whole.

Information about reporting segment net sales and gross margin are provided below:

For the year ended December 31, 2008	Air Pollution Control Segment	FUEL CHEM Segment	Other	Total
Revenues from external customers	\$ 44,393	\$ 36,681	\$ -	\$ 81,074
Cost of sales	24,365	19,979	1	44,345
Gross margin	20,028	16,702	(1)	36,729
Selling, general and administrative	-	-	28,012	28,012
Research and development	-	-	2,100	2,100
Operating income (loss)	\$ 20,028	\$ 16,702	\$ (30,113)	\$ 6,617

For the year ended December 31, 2007	Air Pollution Control Segment	FUEL CHEM Segment	Other	Total
Revenues from external customers	\$ 47,750	\$ 32,547	\$ -	\$ 80,297
Cost of sales	25,775	16,619	77	42,471
Gross margin	21,975	15,928	(77)	37,826
Selling, general and administrative	-	-	24,950	24,950
Research and development	-	-	2,137	2,137
Operating income (loss)	\$ 21,975	\$ 15,928	\$ (27,164)	\$ 10,739

For the year ended December 31, 2006	Air Pollution Control Segment	FUEL CHEM Segment	Other	Total
Revenues from external customers	\$ 46,454	\$ 28,661	\$ -	\$ 75,115
Cost of sales	26,328	11,932	169	38,429
Gross margin	20,126	16,729	(169)	36,686
Selling, general and administrative	-	-	23,901	23,901
Research and development	-	-	2,052	2,052
Operating income (loss)	\$ 20,126	\$ 16,729	\$ (26,122)	\$ 10,733

### Geographic Segment Financial Data

Information concerning Fuel Tech's operations by geographic area is provided below. Revenues are attributed to countries based on the location of the customer. Assets are those directly associated with operations of the geographic area.

For the years ended December 31	2008	2007	2006
Revenues:			
United States	\$ 68,433	\$ 67,534	\$ 57,628
Foreign	12,641	12,763	17,487
	<u>\$ 81,074</u>	<u>\$ 80,297</u>	<u>\$ 75,115</u>
December 31,			
Assets:			
United States	\$ 81,241	\$ 79,132	\$ 62,190
Foreign	7,632	8,082	3,470
	<u>\$ 88,873</u>	<u>\$ 87,214</u>	<u>\$ 65,660</u>

For the year ended December 31, 2008, Fuel Tech had two customers that individually represented greater than 10% of revenues. In total these two customers represented 28% of revenues, one procuring products solely from the APC technology segment and the other procuring products solely from the FUEL CHEM technology segment.

For the year ended December 31, 2007, Fuel Tech had two customers that individually represented greater than 10% of revenues. In total, these two customers represented 23% of revenues and utilized the product line offered by Fuel Tech's APC technology segment.

For the year ended December 31, 2006, Fuel Tech had one customer that represented greater than 10% of revenues. This customer represented 25% of revenues and utilized the product line offered by Fuel Tech's APC technology segment.

## Quarterly Financial Data

Set forth below are the unaudited quarterly financial data for the fiscal years ended December 31, 2008 and 2007.

<b>For the quarters ended:</b>	<b>March 31</b>	<b>June 30</b>	<b>September 30</b>	<b>December 31</b>
<b>2008 (a)</b>				
Revenues	\$ 20,467	\$ 18,791	\$ 23,703	\$ 18,113
Cost of sales	10,669	9,833	13,019	10,824
Net income	1,633	447	2,102	(580)
Net income (loss) per Common Share:				
Basic	\$ 0.07	\$ 0.02	\$ 0.09	\$ (0.02)
Diluted	\$ 0.07	\$ 0.02	\$ 0.09	\$ (0.02)
<b>2007 (b)</b>				
Revenues	\$ 16,262	\$ 16,210	\$ 15,246	\$ 32,579
Cost of sales	8,957	9,083	8,018	16,413
Net income	792	282	927	5,242
Net income per Common Share:				
Basic	\$ 0.04	\$ 0.01	\$ 0.04	\$ 0.23
Diluted	\$ 0.03	\$ 0.01	\$ 0.04	\$ 0.21

(a) The total of the basic and diluted net income amounts per share for the four quarters ending December 31, 2008 does not sum to the amounts presented on the consolidated statement of income for the year ending December 31, 2008 due to rounding.

(b) The total of the basic net income amounts per share for the four quarters ending December 31, 2007 does not sum to the amounts presented on the consolidated statement of income for the year ending December 31, 2007 due to rounding.

## 12. BUSINESS ACQUISITIONS

Fuel Tech accounts for its acquisitions as purchases. Accordingly, in connections with each acquisition, the purchase price is allocated to the estimated fair values of all acquired tangible and intangible assets and assumed liabilities as of the date of the acquisition.

### Tackticks, LLC & FlowTack, LLC

On October 2, 2008, Fuel Tech completed its acquisitions of substantially all of the assets and assumed certain liabilities of Durham, North Carolina-based Tackticks, LLC (Tackticks) and FlowTack, LLC (FlowTack) for a total cash consideration of \$4,000. No future consideration is due. We believe the addition of these companies will make Fuel Tech a synergistically more powerful company by broadening its product offerings, strengthening its modeling capabilities, exposing it to a new client base, and enabling it to participate in the sizable SCR end of the air pollution control market in a more meaningful way. The addition of the two management teams, including one of the world's foremost experts in the design and optimization of traditional catalyst-based SCR systems, will significantly enhance Fuel Tech's ability to sell hybrids such as our NOxOUT CASCADE offering, which integrates a single layer of catalyst into the Selective Non-Catalytic Reduction process. Tackticks and FlowTack will be reported as part of the APC segment.

The acquisition was accounted for as a purchase and, accordingly, the purchase price plus acquisition costs of approximately \$4.2 million was allocated to the fair market values of acquired tangible and intangible assets of approximately \$4.9 million and assumed liabilities of approximately \$0.7 million as of October 3, 2008. Intangible assets acquired include, among others, customer relationships, covenants not to compete, and technology with a fair value of approximately \$0.9 million. Based upon a preliminary purchase price allocation, goodwill of approximately \$3.0 million has been recorded. We expect the goodwill balance to be deductible for income tax purposes. Subsequent adjustments may be made to the purchase price and purchase price allocation based upon, among other things, the settlement of the tangible net worth calculation; however, we do not expect that any such adjustments will be material.

### Advanced Combustion Technology, Inc.

On December 5, 2008, Fuel Tech signed a definitive agreement to acquire certain assets and assume certain liabilities of Hooksett, New Hampshire-based Advanced Combustion Technology, Inc. (ACT) for approximately \$22,000 in cash plus

performance-based contingent payments. We believe the addition of ACT's nitrogen oxide (NOx) control systems, including low-NOx burners and over-fire air systems, will strengthen Fuel Tech's position in the combustion modification market and will provide us with a total technical solution for NOx control from the burner to the stack. In addition, this acquisition should provide a natural conduit for potential follow-on business from those clients requiring deeper emission reductions that can only be satisfied with post-combustion NOx controls. Our customers should benefit from the added flexibility afforded by ACT's HERT High Energy Reagent Technology system, which will complement Fuel Tech's suite of post-combustion technical solutions based on our NOxOUT technologies. The acquisition closed on January 5, 2009; see note 13 – Subsequent Events, for additional information. ACT will be reported as part of the APC segment.

### **13. SUBSEQUENT EVENTS**

On January 6, 2009 Fuel Tech announced that it had completed its acquisition of substantially all of the assets of Advanced Combustion Technology, Inc. and is currently in the process of allocating the purchase price to the fair market values of acquired tangible and intangible assets and assumed liabilities as of January 5, 2009.

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

None

### **ITEM 9A - CONTROLS AND PROCEDURES**

#### **Disclosure Controls and Procedures**

Under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, our management evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act), as of the end of the period covered by this Annual Report on Form 10-K (the "Evaluation Date"). Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the Evaluation Date, our disclosure controls and procedures are effective to ensure that information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934 is (i) recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

#### **Change in Internal Controls**

There has been no change in our internal control over financial reporting that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

#### **Management's Report on Internal Control Over Financial Reporting**

Fuel Tech's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. As required by Rule 13a-15(c) under the Exchange Act, Fuel Tech's management carried out an evaluation, with the participation of Fuel Tech's Chief Executive Officer and Chief Financial Officer, of the effectiveness of its internal control over financial reporting as of the end of the last fiscal year. The framework on which such evaluation was based is contained in the report entitled "Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO Report").

Fuel Tech's system of internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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.

Based on its assessment, management has concluded that Fuel Tech maintained effective internal control over financial reporting as of December 31, 2008, based on criteria in "Internal Control - Integrated Framework" issued by the COSO.

Grant Thornton, LLP, our independent registered public accounting firm, who audited and reported on the consolidated financial statements included in this Annual Report on Form 10-K, has issued an attestation report on the effectiveness of our internal control over financial reporting. This attestation report is included on page 23 of this Annual Report on Form 10-K.

### **ITEM 9B - OTHER INFORMATION**

None

## PART III

### ITEM 10 – DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this Item will be set forth under the captions “Election of Directors,” “Directors and Executive Officers of Fuel Tech,” “Compensation Committee,” “Audit Committee,” and “Financial Experts” in Fuel Tech’s Proxy Statement related to the 2009 Annual Meeting of Stockholders (the “Proxy Statement”) and is incorporated by reference.

Fuel Tech has adopted a Code of Ethics and Business Conduct (the “Code”) that applies to all employees, officers and directors, including the Chief Executive Officer, Chief Financial Officer and Controller. A copy of the Code is available free of charge to any person on written or telephone request to Fuel Tech’s Investor Relations at the address or telephone number set out in Fuel Tech’s Annual Report to Stockholders. The Code is also available on Fuel Tech’s website at [www.ftek.com](http://www.ftek.com).

The identities of the Fuel Tech directors and other information concerning the directors and executive officers of Fuel Tech and relating to corporate governance will be set forth under the captions “Election of Directors,” “Audit Committee,” “Compensation and Nominating Committee,” “Financial Experts,” “Corporate Governance” and “General” in Fuel Tech’s Proxy Statement related to its 2009 Annual Meeting of Stockholders and is incorporated by reference.

The identities of and the employment history of Fuel Tech executive officers with Fuel Tech or its affiliates who are not directors are as follows:

Vincent M. Albanese, 60, has been Senior Vice President, Regulatory Affairs since February, 2007; previously he had been Senior Vice President, Advanced Technology and Regulatory Affairs since April, 2006; Senior Vice President, Air Pollution Control, Sales and Marketing since May, 2000; Vice President, Air Pollution Control since April, 1998 and Vice President, Sales and Marketing since 1990.

Ellen T. Albrecht, 36, has been Vice President and Controller since December, 2006; previously she had been Controller since February, 2004; Accounting Manager since May, 2001; and Senior Accountant since July, 1996.

Stephen P. Brady, 52, has been Senior Vice President, Fuel Chem Sales since January, 2009; previously he had been Senior Vice President, Sales and Marketing since April, 2006; Senior Vice President, Fuel Chem since January, 2002; and Vice President, Fuel Chem since February, 1998.

William E. Cummings, Jr., 52, has been Senior Vice President, APC Sales since January, 2009; previously he had been Vice President, Sales since April, 2006; Vice President, Air Pollution Control Sales since May, 2000; Director, Utility Sales since April, 1998; and Director, Eastern Region since 1994.

Kevin R. Dougherty, 46, has been Vice President, Business Development and Marketing since April, 2006; previously he had been Vice President, Corporate Marketing and Procurement since December, 2005; Director, Marketing and Sales Administration, Air Pollution Control since November, 2000; and Manager, Contracts Administration, Air Pollution Control since 1999.

Timothy Eibes, 52, has been Vice President, Project Execution since August, 2006; previously he had been employed by Alliant Energy, Inc. since 1987, his last position being Vice President, Asset Management.

John P. Graham, 43, has been Senior Vice President, Treasurer and Chief Financial Officer since June, 2008 after joining the Company as Senior Vice President in April, 2008; previously he had been employed as Chief Financial Officer of Hub International from 2006 to 2007 and as Senior Vice President, Finance, Treasurer and Assistant Secretary of Career Education Corporation from 2002 to 2006.

Albert G. Grigonis, 58, has been Vice President, General Counsel and Secretary since December, 2008; previously he had been Assistant General Counsel since July, 2008; and Corporate Counsel since July, 2003.

Charles W. Grinnell, 71, was Vice President, Legal Affairs since December, 2008 after serving as the Company’s Vice President, General Counsel and Secretary since 1988. Mr. Grinnell retired from Fuel Tech on January 31, 2009 and now serves solely as a member of the Company’s Board of Directors.

Tracy Krumme, 41, has been Vice President, Investor Relations and Corporate Communications since December, 2006; previously she had been Director, Investor Relations since September, 2002.

Dr. M. Linda Lin, 60, has been Senior Vice President, China/Pacific Rim since August, 2008; previously she had been Vice President, China/Pacific Rim since December, 2006; Vice President Asia/Pacific since April, 2006; Marketing Manager since 1992; and Research Associate/Research Manager since 1990.

Michael P. Maley, 50, prior to his resignation from Fuel Tech effective February 13, 2009, had been Senior Vice President, International Business Development and Project Execution since joining the Company in April, 2006; previously he had been employed as President and Chief Operating Officer of Alliant Energy Generation from 2001 to 2005; Vice President of Business Development of Calpine Corporation since 1998; and Vice President of Project Development of Cogentrix Energy LLC since 1993.

Volker Rummenhohl, 51, has been Vice President, Catalyst Technologies since joining the Company on October 3, 2008; previously he had been President of Tackticks, LLC since February, 2001 and co-majority owner of FlowTack, LLC, since December, 2003. Substantially all of the assets of both companies were acquired by Fuel Tech on October 3, 2008 in an asset purchase.

Nolan R. Schwartz, 57, has been Vice President, Strategic Business Development since August, 2008; he had been Vice President, Corporate Development since January, 2004 and a director of Fuel Tech, Inc., a former subsidiary of Fuel Tech, since 1998; and, prior to that, a principal of American Bailey Corporation.

Christopher R. Smyrniotis, 56, has been Vice President, Fuel Chem Technologies since April 5, 2006; previously he had been Vice President, Fuel Chem Technology and Market Development since December, 2003; Director of Marketing and Technology, Fuel Chem since October, 1998; and Market Development manager since 1993.

Dr. William H. Sun, 51, has been Vice President, Europe, India and Latin America since February 9, 2009; he had been Vice President, Air Pollution Technologies since April, 2006; Vice President and Chief Technology Officer since December, 2003; Vice President, Engineering and Technology since April, 1998; and Director of Process Engineering since 1990.

#### **ITEM 11 - EXECUTIVE COMPENSATION**

Information required by this Item will be set forth under the caption “Executive Compensation” in the Proxy Statement and is incorporated by reference.

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

The following table provides information for all equity compensation plans as of the fiscal year ended December 31, 2008, under which the securities of Fuel Tech were authorized for issuance:

<b>Plan Category</b>	<b>Number of Securities to be issued upon exercise of outstanding options, warrants and rights</b>	<b>Weighted-average exercise price of outstanding options, warrants and rights</b>	<b>Number of securities remaining available for future issuance under equity compensation plans excluding securities listed in column (a)</b>
	<b>(a)</b>	<b>(b)</b>	<b>(c)</b>
Equity compensation plans approved by security holders (1)	2,905,325	\$ 16.31	471,712

- (1) Includes Common Shares of Fuel Tech authorized for awards under Fuel Tech’s Incentive Plan, as amended through June 3, 2004.

In addition to the above, Fuel Tech has a Deferred Compensation Plan for directors under which 100,000 Common Shares of Fuel Tech stock have been reserved for issuance as a form of deferred compensation with respect to directors fees elected to be deferred. At December 31, 2008, 47,677 Common Shares have been earned as stock units to be granted on a one to one basis in Common Shares at the election of the Directors.

Further information required by this Item will be set forth under the caption “Principal Stockholders and Stock Ownership of Management” in the Proxy Statement and is incorporated by reference.

#### **ITEM 13 - CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

Information required by this Item will be set forth under the captions “Compensation Committee Interlocks and Insider Participation” and “Certain Relationships and Related Transactions” in the Proxy Statement and is incorporated by reference.

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

Information required by this Item will be set forth under the caption “Approval of Appointment of Auditors” in the Proxy Statement and is incorporated by reference.

## PART IV

### ITEM 15 - EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

#### (a) (1) Financial Statements

The financial statements identified below and required by Part II, Item 8 of this Form 10-K are set forth above.

Management's Report on Internal Control Over Financial Reporting  
Report of Independent Registered Public Accounting Firm on Internal Control Over Financial Reporting  
Report of Independent Registered Public Accounting Firm  
Report of Independent Registered Public Accounting Firm  
Consolidated Balance Sheets as of December 31, 2008 and 2007  
Consolidated Statements of Income for Years Ended December 31, 2008, 2007 and 2006  
Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2008, 2007 and 2006  
Consolidated Statements of Cash Flows for the Years Ended December 31, 2008, 2007 and 2006  
Notes to Consolidated Financial Statements

#### (2) Financial Statement Schedules

All other schedules have been omitted because of the absence of the conditions under which they are required or because the required information, where material, is shown in the financial statements or the notes thereto.

**(3) Exhibits**

<u>Exhibit</u>	<u>Description</u>	<u>Filed herewith</u>	<u>Incorporated by reference</u>			
			<u>Form</u>	<u>Period ending</u>	<u>Exhibit</u>	<u>Filing date</u>
3.1	Certificate of Incorporation of Fuel Tech, Inc.		8-K		3.2	10/05/06
3.2	Certificate of Conversion of Fuel Tech, Inc.		8-K		3.1	10/05/06
3.3	By-Laws of Fuel Tech, Inc.		8-K		3.3	10/05/06
4.1	Instrument Constituting US \$19,200 Nil Coupon Non-Redeemable Convertible Unsecured Loan Notes of Fuel-Tech N.V., dated December 21, 1989		20-F		4.1	08/26/93
4.2	First Supplemental Instrument Constituting US \$3,000 Nil Coupon Non-Redeemable Convertible Unsecured Loan Notes of Fuel-Tech N.V., dated July 10, 1990		20-F		4.2	08/26/93
4.3	Instrument Constituting US \$6,000 Nil Coupon Non-Redeemable Convertible Unsecured Loan Notes of Fuel-Tech N.V., dated March 12, 1993		6-K	03/31/93	4.3	04/01/93
4.4*	Fuel Tech, Inc. Incentive Plan as amended through June 3, 2004		S-8		4.5	10/02/06
4.5*	Fuel Tech, Inc. Form of Non-Executive Director Stock Option Agreement		10-K	12/31/06	4.6	03/06/07
4.6*	Fuel Tech, Inc. Form of Non-Qualified Stock Option Agreement		10-K	12/31/06	4.7	03/06/07
4.7*	Fuel Tech, Inc. Form of Incentive Stock Option Agreement		10-K	12/31/06	4.8	03/06/07
4.8	Business Loan Agreement, dated as of July 31, 2006, between Wachovia Bank N.A. and Fuel Tech, Inc.		8-K		99.1	08/10/06

<u>Exhibit</u>	<u>Description</u>	<u>Filed herewith</u>	<u>Incorporated by reference</u>			
			<u>Form</u>	<u>Period ending</u>	<u>Exhibit</u>	<u>Filing date</u>
10.1	Securities Purchase Agreement dated as of March 23, 1998, between Fuel-Tech N.V., and the several Investors signatory thereto, including exhibits.		6-K	03/31/98	10.1	04/01/98
10.2	License Agreement dated November 18, 1998 between The Gas Technology Institute and Fuel Tech, Inc. relating to the FLGR Process (Certain confidential information removed and filed separately).		10-K	12/31/99	3.28	03/30/00
10.3	Amendment No. 1, dated February 28, 2000, to License Agreement dated November 18, 1998 between The Gas Technology Institute and Fuel Tech, Inc. relating to the FLGR Process (Certain confidential information removed and filed separately).		10-K	12/31/99	3.29	03/30/00
10.4	Employment Agreement as of February 28, 2006 between John (Johnny) F. Norris Jr. and Fuel Tech, Inc.		10-K	12/31/05	3.18	03/10/06
10.5	Amendment to Employment Agreement as of February 28, 2007 between John (Johnny) F. Norris Jr. and Fuel Tech, Inc.		10-K	12/31/07	10.5	03/05/08
10.6	Form of Indemnity Agreement between Fuel Tech, Inc. and its Directors and Officers.		8-K		99.1	02/07/07
10.7	Restated Supply Agreement, dated March 4, 2009, between Fuel Tech, Inc. and Martin Marietta Magnesia Specialties, LLC (Certain confidential information removed and filed separately).	X				
10.8	Asset Purchase Agreement, dated December 5, 2008, among Fuel Tech, Inc., Advanced Combustion Technology, Inc., Peter D. Marx, Robert W. Pickering and Charles E. Trippel.	X				
23.1	Consent of Independent Registered Public Accounting Firm.	X				
31.1	Certifications of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X				
31.2	Certifications of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X				
31.3	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X				
31.4	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X				

\* Indicates a management contract or compensatory plan or arrangement.

## SIGNATURES AND CERTIFICATIONS

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

FUEL TECH, INC.

Date: March 5, 2009

By: /s/ John F. Norris Jr.  
John F. Norris Jr.  
Chief Executive Officer  
(Principal Executive Officer)

Date: March 5, 2009

By: /s/ John P. Graham  
John P. Graham  
Chief Financial Officer  
(Principal Financial Officer)

Pursuant to the requirements of the Securities and Exchange Act of 1934, this report has been duly signed below by the following persons on behalf of Fuel Tech, Inc. and in the capacities and on the date indicated.

Date: March 5, 2009

<u>Signature</u>	<u>Title</u>
<u>/s/ Ralph E. Bailey</u> Ralph E. Bailey	Executive Chairman and Director
<u>/s/ Douglas G. Bailey</u> Douglas G. Bailey	Deputy Chairman and Director
<u>/s/ Miguel Espinosa</u> Miguel Espinosa	Director
<u>/s/ Charles W. Grinnell</u> Charles W. Grinnell	Director
<u>/s/ Thomas L. Jones</u> Thomas L. Jones	Director
<u>/s/ John D. Morrow</u> John D. Morrow	Director
<u>/s/ John F. Norris Jr.</u> John F. Norris Jr.	Director, President and Chief Executive Officer (Principal Executive Officer)
<u>/s/ Thomas S. Shaw, Jr.</u> Thomas S. Shaw, Jr.	Director
<u>/s/ Delbert L. Williamson</u> Delbert L. Williamson	Director
<u>/s/ Ellen T. Albrecht</u> Ellen T. Albrecht	Vice President and Controller (Controller)
<u>/s/ John P. Graham</u> John P. Graham	Sr. Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer)

### Exhibit 31.1

I, John F. Norris Jr., certify that:

1. I have reviewed this Annual Report on Form 10-K of Fuel Tech, 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 officers 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 officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors:
  - 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 5, 2009

By: /s/ John F. Norris Jr.  
John F. Norris Jr.  
Chief Executive Officer

## Exhibit 31.2

I, John P. Graham, certify that:

1. I have reviewed this Annual Report on Form 10-K of Fuel Tech, 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 officers 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 officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors:
  - 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: as of March 5, 2009

By: /s/ John P. Graham  
John P. Graham  
Chief Financial Officer

**Exhibit 32**

The undersigned in their capacities as Chief Executive Officer and Chief Financial Officer of the Registrant do hereby certify that:

(i) this report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(ii) information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the Registrant as of, and for, the periods presented in the report.

Date: March 5, 2009

By: /s/ John F. Norris Jr.  
John F. Norris Jr.  
Chief Executive Officer

Date: March 5, 2009

By: /s/ John P. Graham  
John P. Graham  
Chief Financial Officer

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (the "Act") this certification accompanies the Report and shall not, except to the extent required by the Act, be deemed filed by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Fuel Tech, Inc. and will be retained by Fuel Tech, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

**Exhibit 23.1- UPDATED AND COMING FROM GRANT THORNTON**

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We have issued our reports dated March 5, 2009, with respect to the consolidated financial statements, schedule, and internal control over financial reporting included in the Annual Report of Fuel Tech, Inc. on Form 10-K for the year ended December 31, 2008. We hereby consent to the incorporation by reference of said reports in the Registration Statement of Fuel Tech, Inc. on Form S-8 (No. 333-137735 effective October 2, 2006).

/s/ Grant Thornton LLP

Chicago, Illinois  
March 5, 2009