Fuel Tech, Inc. FTEK [Nasdaq]

Morningstar Rating	Last Price	Fair Value	Consider Buy	Consider Sell	Uncertainty	Economic Moat	Stewardship Grade	Industry	Sector
★★★★★	15.80	53.00	34.50	79.50	High	Narrow	A	Environmental Control	Business Services

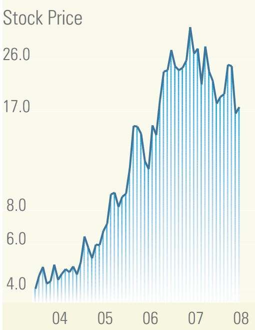
Per share prices in USD

Court Scraps CAIR Regulation

by John Kearney, CFA
Senior Stock Analyst
Analysts covering this company do not own its stock.

Report updated on July 15, 2008.
Data and Rating updated as of August 08, 2008.

Currency amounts expressed with "$" are in U.S. dollars (USD) unless otherwise denoted.



Analyst Note Jul. 15, 2008

A federal appeals court ruling last Friday striking down the Environmental Protection Agency's Clean Air Interstate Rule (CAIR) regulation took us by surprise, but at this time we think this will only be a mild setback for Fuel Tech's air pollution control (APC) business. While the decision certainly introduces some added uncertainty for the APC business over the short term, we think the significant decline in the company's stock price over the last several days is unjustified. Management communicated to us that the company does not expect the ruling to affect its current product pipeline or to materially impact the 2008 guidance it laid out for the APC business earlier this year. We think it could potentially impact domestic sales activity for the APC business in 2009 as utilities postpone purchasing air pollution control equipment (say until 2010), but China's surging demand for these product could fill the void created by any revenue shortfall on the domestic front.

From a longer-term perspective, we think the court's ruling will prove insignificant. It is almost certain that utilities will have to comply with stricter environmental regulations going forward. In fact, our understanding of the court's ruling is that it did not oppose the emission reductions spelled out in the CAIR initiative. Rather, it was the means by which utilities were allowed to achieve compliance under CAIR. Given what it viewed as "fatal flaws" with respect to things like the cap-and-trade provisions under CAIR, the court moved to vacate the rule in its entirety. However, we think it's reasonable to assume that a new (and potentially more restrictive) regulation will eventually replace CAIR and that Fuel Tech's air pollution control business will continue to have a large market opportunity to tap in the coming years. It's also important to note that the ruling will in no way impact the Fuel Chem business. We will continue to monitor the regulatory developments on the APC front closely, but given what we know right now we don't think this ruling will derail Fuel Tech's long-term growth trajectory. As a result, we are maintaining our fair value estimate.

Thesis Apr. 10, 2008

Increasingly stringent air quality standards and more acute concerns about slag formation have unlocked a huge market opportunity for Fuel Tech. We think the company's suite of products and management's deep-rooted ties to the utilities industry will translate into substantial growth for this narrow-moat firm.

Fuel Tech has quietly established itself as a leading provider of clean-energy engineering solutions. Its flagship business develops aftermarket nitrogen oxide reduction equipment to help utilities and industrial firms comply with new pollution control mandates. Its select noncatalytic reduction systems help power-generating facilities achieve a 30%-80% decrease in nitrogen oxide emissions at a fraction of the cost of competing technologies. With new environmental legislation forcing power plants to cut nitrogen oxide emission levels as much as 60% in the coming years, demand for Fuel Tech's cost-effective technology will continue to mount.

Although the air pollution control business is expected to drive impressive growth, we think the specialty chemical segment, Fuel Chem, will prove to be the company's hidden treasure. Fuel Chem has developed a proprietary fuel treatment chemical and process that eliminates corrosive byproducts (slag) released during fuel combustion. Its application is particularly useful in coal-fired power plants, where slag buildup inside the furnace reduces plant efficiency and causes maintenance problems. Under current industry practices, a plant operator has to shut down the facility for as long as two weeks and use explosives to remove the slag. Fuel Chem technology, in contrast, injects targeted doses of specialty

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Close Competitors	Currency(Mil)	Market Cap	TTM Sales	Oper Income	Net Income
Fuel Tech, Inc.	USD	355	85	12	8
Veolia Environnement	USD	26,290	44,650	3,417	1,717
Pentair, Inc.	USD	3,592	3,457	375	290
Donaldson Company, Inc.	USD	3,560	2,150	242	167

Morningstar data as of August 08, 2008.

chemicals into the furnace during combustion, removing slag buildup while the plant is still on line. Thus, it is a much safer and more efficient alternative to the industry's current and more primitive slag-reduction procedure.

Fuel Chem's patent-protected slag-reduction process has proved to be highly effective, as illustrated by its high client retention rate. Utilities pay Fuel Tech an annual fee to supply and monitor the injection of slag-reducing chemicals into their boilers. As more utilities begin to use Powder River Basin coal, slag reduction will become an even more pressing concern because of the high level of impurities in PRB coal. We believe the immense market opportunity for the company's specialty chemical business, coupled with Fuel Tech's relatively uncontested niche position in the air pollution control market, has the potential to drive substantial shareholder returns in the coming years.

Valuation

We're maintaining our fair value estimate for Fuel Tech at $53. We continue to believe Fuel Tech's valuable suite of technology solutions, coupled with huge domestic and international market opportunities, provides a runway for tremendous growth in the coming years. While management has provided a lackluster growth outlook for 2008, we believe there are several potential catalysts that could spark the firm's long-term growth trajectory. A new energy legislation package currently in front of Congress proposes that the Federal Energy Regulatory Commission allows energy efficiency measures (like Fuel Chem) to be included in the FERC fuel adjustment cost. While a new energy bill probably won't be passed until 2009, we think this measure would spur increased adoption of Fuel Chem in the United States, as it would allow many utilities to pass through their chemical costs directly to rate payers. This would effectively eliminate the budgetary constraints most utilities face when deciding whether to adopt Fuel Chem. We also believe the Chinese market will spur substantial growth for Fuel Tech in the coming years. In China, most of the utility purchasing and investment decisions are made at the holding company level as opposed to the individual plant level (which is the case in the U.S.). Therefore, it is reasonable to assume rapid adoption rates could ensue for the firm's products in China if utility heads are satisfied with the results of Fuel Tech products on trial units. If they like the product, they'll likely move to apply them to a large portion of their fleet at once instead of piecemeal. In order to more fully account for the cone of potential growth rates Fuel Tech could achieve as a result of (or lack of) these potential catalysts, we stress tested our model under a number of low-growth and high-growth assumptions. After probability weighting the resulting expected values derived from this scenario analysis, we continue to believe our current fair value estimate is a good proxy for Fuel Tech's potential value when assessed over a multiyear investment horizon.

Risk

The threat of a competing or disruptive technology displacing the company's air pollution control and chemical fuel products is our principal concern for Fuel Tech. Although we believe Fuel Tech has the superior technology over its competition in both of its niche markets at this time, a more effective and cheaper offering from a larger competitor could curtail Fuel Tech's heady growth prospects.

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Bulls Say

- With more than 1,500 coal-fired plants in the United States, there is a huge market potential for Fuel Chem's proprietary slag-reduction technology even if it captures only a fraction of what could be a $1 billion-plus market in the U.S. alone.
- The company's partnership with Itochu opens the door for the Fuel Chem product to ramp up sales in China five years ahead of the pace Fuel Tech could have achieved on its own. As the world's largest consumer of coal, China offers an even greater market opportunity for the company's products than the U.S.
- By continuing to establish a working relationship with an increasing number of utilities, Fuel Tech will see revenue benefit from the snowball effect created when the individual plants operated by those utilities begin to install the company's products.
- The capital intensity of Fuel Tech's businesses is very low. Most of the high-margin, front-end engineering work is done in-house, while the more capital-intensive construction activities are outsourced to subcontractors.
- Recently announced partnerships with two privately owned environmental services firms will help Fuel Tech broaden its international product offering and will give the company exposure to the sulfur dioxide and mercury abatement market.

Bears Say

- The company's primary customer base--electric utilities--have historically been slow to adopt new technologies, which could make it difficult for Fuel Tech to gain broad acceptance of its products in the near term.
- Given its relatively modest size, the company may lack the resources to fully exploit the tremendous market opportunities that lie in front of it.
- Confidence in the company's ability to seize its growth prospects could wane if Fuel Tech's near-term contract wins and financial performance fall short of investors' lofty expectations.
- As it moves more aggressively in China, Fuel Tech bears an increased risk of someone stealing its intellectual property.
- GE Betz markets a slag-reduction technology (FuelSolv), which, if proven equally effective, could limit Fuel Chem's pricing power and total market penetration potential.

Financial Overview

Growth: Fuel Tech's growth prospects are substantial. More-stringent nitrogen oxide emission regulation should fuel healthy growth in the pollution control segment, while increasing industry acceptance of the Fuel Chem product should also spur substantial company growth.

Profitability: The air pollution control and chemical segments are highly profitable, with gross margins of around 45% and 55%, respectively. Although Fuel Tech's returns on invested capital have been erratic in the past, the company is now generating solid economic profits for shareholders.

Financial Health: Fuel Tech's balance sheet has ample cash reserves and a minimal amount of debt. We don't foresee any near-term variables that would change this.

Company Overview

Profile: Fuel Tech develops air pollution control systems and process optimization technologies. Through its air pollution control business, the company sells nitrogen oxide reduction solutions for industrial power generators, boilers, incinerators, furnaces, and other combustion sources. The company also operates a chemical fuel business that helps to reduce the buildup of corrosive impurities in plant furnaces during the combustion of fossil fuels.

Strategy: Fuel Tech's primary efforts are concentrated on increasing market share for its existing air pollution and specialty chemical products. It will continue to expand its marketing reach by adding more salespeople when necessary and will improve the cross-promotional efforts of its existing salesforce. Continued research-and-development investment is also expected as the company hopes to develop additional product lines.

Management: Fuel Tech's executive suite has a wealth of experience, and its interests are closely aligned with those of shareholders. Ralph Bailey, a retired chairman and CEO of Conoco and a retired vice chairman of DuPont, purchased a substantial portion of Fuel Tech stock in 1998 through his privately owned acquisition-and-development company (American Bailey Corporation). Bailey subsequently became CEO and chairman of Fuel Tech that same year. He owns 20% of the outstanding stock and collects no annual compensation from the company. He continues to serve as chairman, but relinquished the CEO position to John Norris in February 2006. Norris is a former plant manager and executive of Duke Energy and American Electric Power. His extensive industry experience and ingrained utility relationships have helped Fuel Tech open doors with prospective utility customers. His background has also provided increased credibility behind the company's core product lines. Fuel Tech scores high marks for its corporate stewardship. In addition to management's sizable stake, we applaud the company for its reasonable executive compensation structure, nonstaggered board terms, and the absence of any dilutive severance packages or takeover defenses.

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May 06, 2008

Fuel Tech Reports 1Q Results

Fuel Tech reported first-quarter results Tuesday that offered few surprises, as the company remains on track to meet our full-year expectations. The air pollution control business generated 36% revenue growth in the quarter, while Fuel Chem experienced a 15% increase in revenue. The APC segment is benefiting from a strong book of backlog that should build throughout the year. To date, many utilities have delayed capital investments needed to comply with the more stringent nitrogen oxide emission allowances under the Clean Air Interstate Rule that take effect in 2009. However, Fuel Tech's SNCR systems should continue to gain traction as utilities look for cost-effective CAIR-compliant solutions to avoid paying today's hyperinflated prices for nitrogen oxide emission credits.

The double-digit increase in Fuel Chem's top line comprised a 45% increase in coal plant revenue, partially offset by a substantial decline in revenue from oil-fired facilities as many of these plants have become uneconomic sources of

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Analyst Notes (continued)

electricity during nonpeak times at current oil prices. That said, coal-fired plants remain the largest and highest-margin customers for Fuel Chem and will prove to be the long-term growth driver of the business. Fuel Chem has already added eight new customers (six of which are coal-fired) since the beginning of the year. This first-quarter figure equals or exceeds the annual number of new Fuel Chem customers added in any single year before 2007 and puts Fuel Tech on pace to significantly exceed the 13 new customer additions it recorded during 2007. This accelerating upward trend in new customer adds is expected to continue over both the near and long term, particularly as the company begins to tap the highly opportunistic international markets.

We remain optimistic about Fuel Tech's long-term prospects in the APC and Fuel Chem businesses. We believe both segments should continue to increase their top lines at an attractive pace over the coming years without compromising profit margins for growth. In fact, we expect consolidated operating margins to expand as the company capitalizes on the embedded operating leverage in its business. We are maintaining our fair value estimate for Fuel Tech and believe the current share price offers substantial upside opportunity for long-term-oriented investors.

Mar. 10, 2008

Maintaining Fuel Tech's Fair Value

After digesting Fuel Tech's fourth-quarter results and its tepid 2008 forecast, we've decided to maintain our prior fair value estimate for the firm as we believe the company's long-term growth prospects remain compelling.

It appears that 2008 will prove to be less robust than we had previously projected, but after running through the numbers we believe management's expectations may prove overly cautious. Management's $38 million-$40 million revenue forecast for the Fuel Chem business appears particularly conservative. This top-line range is more reflective of the recurring revenue stream Fuel Chem's existing customers will likely generate for the year (based on current plant count and the annual revenue generated from each of those plants). In other words, we think the forecast assumes little or no growth from new plant additions during the year--an unlikely scenario in our opinion. Thus, any revenue generated from new plant additions during the year should be incremental to this revenue range (assuming existing clients run their plants at normal levels with no prolonged outages). After making several curtailments throughout the year to the optimistic expectations it provided investors at the start of 2007, we think management has opted to take a more conservative approach to its forecast for 2008--and they admitted as much to us in our conversation with them. Therefore, we would not be surprised to see those projections guided higher as we move through the year.

Although we have trimmed our own 2008 projections down to what we now believe to be a more plausible level for the year, changes to near-term assumptions generally have little impact on our more back-end-weighted fair value estimate. As a result, we also decided to rigorously stress test our valuation model by adjusting our long-term growth assumptions. After weighting the resulting fair value estimates derived from our current scenario, a fairly pessimistic scenario, and a more optimistic scenario, we still believe our current fair value represents a good estimate for Fuel Tech's range of potential returns. That said, we acknowledge the firm's expected value band is

Analyst Notes (continued)

extremely wide and have increased our risk rating for the stock to reflect this uncertainty.

Mar. 05, 2008

Fuel Tech Reports 4Q Results

Fuel Tech released robust fourth-quarter results Wednesday, but its guidance for 2008 was substantially below what we had built into our modeling projections for the year. We are placing our fair value estimate under review as we take a closer look at the numbers and try to garner some additional insight from management.

With contract delay issues in 2007 and unexpected outages at several of the company's Fuel Chem clients affecting 2007 results, we thought 2008 would be a breakout year for the firm. However, the 10%-16% revenue growth management forecast in 2008 during the conference call is well short of the rate we believe the company should be capable of delivering. We plan to revisit our near-term and long-term modeling assumptions for the firm. A reduction in our fair value estimate is certainly a possibility, given lower near-term growth expectations. However, the stock is likely to remain a solid 5-star recommendation as we continue to believe Fuel Tech can deliver substantial shareholder returns over a multiyear investment period.

Feb. 05, 2008

Fuel Tech Thesis Remains Intact

We attended the 11th annual Electric Utilities Environmental Conference (EUEC) last week where Fuel Tech first released the findings from a white paper study on Fuel Chem. Fuel Tech was asked to mitigate the sulfur trioxide (SO_3) emissions at two of Santee Copper's (South Carolina's state-owned electric utility) coal-fired plants that had been SO_3 compliant until they switched coals in 2004. The higher iron and sulfur content in the new coal being burned was creating more SO_3 emissions--which had drawn the attention of regulators who threatened action if not addressed. After installing Fuel Chem, the Santee plants saw a 65% reduction in SO_3. The plants also experienced the ancillary benefits of a 50% reduction in outage time for maintenance and a 44.5 megawatt increase in plant generation capability. Total return on the utility's Fuel Chem investment was 4:1. We believe the impressive results released from the study will help to bolster the perceived legitimacy of the Fuel Chem product and further assist Fuel Tech in marketing the technology to other utilities.

While at the conference, we also did some checking with several industry experts and Fuel Tech competitors. This provided us with additional insight into the market dynamics and competitive landscape surrounding Fuel Tech's products. We don't believe GE-Betz was present at the conference, but we did speak with two other small firms that are trying to move into the market with their own slag-reduction solutions. Neither has gained much traction thus far and their solutions involve the same precombustion application process that GE-Betz and others have been experimenting with for a number a years. In addition to their limited resources, we found it difficult to discern how these two firms planned to differentiate their products from these other unproven or ineffective solutions.

We continue to believe Fuel Tech's patent-protected targeted in-furnace injection (TIFI) technology remains the superior slag reduction solution in the space and our conversations with several industry experts reinforced that thesis. Even the firms aspiring to offer competitive

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Analyst Notes (continued)

alternatives to Fuel Chem were complimentary of Fuel Tech and its success to date. As a result, we don't view competition as a destructive threat to Fuel Chem's growth potential at this time. In fact, we think the efforts by others to develop slag mitigation technologies provide further validation of the tremendous opportunity this niche market has to offer. With siting for new coal-fired power plants becoming increasing difficult and utilities facing the potential for more restrictive regulatory rates going forward, we believe the industry will need to extend the useful life of existing coal-fired plants for some time to come. This should play favorably into the hands of Fuel Tech with its ability to help utilities cut maintenance costs, reduce pollution, and increase plant efficiency.

Disclaimers & Disclosures

No Morningstar employees are officers or directors of this company. Morningstar Inc. does not own more than 1% of the shares of this company. Analysts covering this company do not own its stock. The information contained herein is not represented or warranted to be accurate, correct, complete, or timely. This report is for information purposes only, and should not be considered a solicitation to buy or sell any security.

Fuel Tech, Inc. FTEK

Sales Mil	Mkt Cap Mil	Industry	Sector
$85	$355	Environmental Control	Business Services

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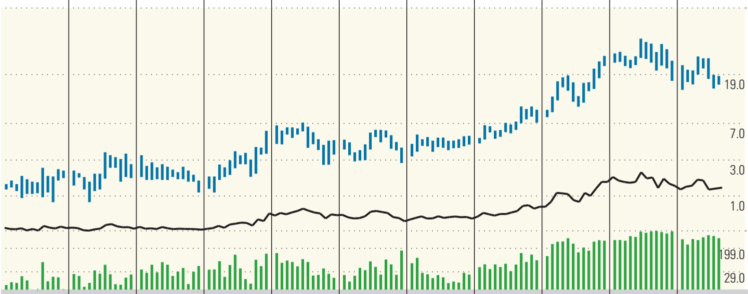
1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	YTD	
2.56	3.75	3.50	6.07	7.25	6.21	5.60	10.13	27.44	38.20	27.16	Annual Price High
0.88	0.88	1.25	1.25	2.76	2.89	3.40	4.60	8.11	16.89	14.15	Low
											Recent Splits



Price Volatility
Monthly High/Low
Rel Strength to S&P 500
52 week High/Low $
34.76 - 14.15
10 Year High/Low $
38.20 - 0.88
Bear-Market Rank
8 (10=worst)
Trading Volume Thousand

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	YTD	Stock Performance
33.3	9.4	-22.9	258.4	-30.7	-15.3	31.6	94.2	171.7	-8.1	-30.2	Total Return %
6.6	-10.1	-12.8	271.4	-7.3	-41.7	22.6	91.2	158.1	-11.6	-18.5	+/- Market
36.5	13.6	-6.4	135.3	-6.1	-37.7	-2.5	83.9	127.5	-29.5	1.5	+/- Industry
—	—	—	—	—	—	—	—	—	—	—	Dividend Yield %
34	40	31	113	82	71	91	183	536	507	355	Market Cap $Mil

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TTM	Financials
26	33	22	18	33	36	31	53	75	80	85	Revenue $Mil
45.9	43.6	46.3	49.1	44.1	39.0	46.3	48.8	48.8	47.1	47.7	Gross Margin %
—	5	1	-1	3	1	0	7	11	11	12	Oper Income $Mil
—	14.5	3.8	-6.8	8.3	2.8	0.8	13.6	14.3	13.4	14.4	Operating Margin %
1	3	0	-2	3	1	2	8	7	7	8	Net Income $Mil
0.03	0.16	0.02	-0.09	0.14	0.05	0.07	0.33	0.28	0.29	0.33	Earnings Per Share $
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Dividends $
17	19	19	18	22	22	22	23	24	24	24	Shares Mil
0.60	0.75	0.79	0.70	0.86	0.87	0.97	1.44	2.19	2.82	2.95	Book Value Per Share $
-1	5	1	2	3	2	1	12	8	4	10	Oper Cash Flow $Mil
0	-3	-1	-1	-1	0	-2	-3	-2	-10	-12	Cap Spending $Mil
-1	2	1	1	2	2	-1	9	6	-6	-2	Free Cash Flow $Mil

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TTM	Profitability
4.0	13.8	1.8	-7.5	13.2	4.7	6.9	22.7	12.6	9.5	11.0	Return on Assets %
6.5	25.1	2.9	-11.8	20.4	6.6	8.7	31.6	17.8	13.1	13.8	Return on Equity %
1.9	9.0	1.9	-9.2	9.4	3.1	5.1	14.3	9.1	9.0	9.6	Net Margin %
2.06	1.53	0.92	0.81	1.41	1.51	1.36	1.58	1.38	1.05	1.15	Asset Turnover
1.9	1.8	1.6	1.6	1.5	1.3	1.3	1.5	1.4	1.4	1.3	Financial Leverage

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	03-08	Financial Health
9	12	13	9	14	11	11	20	39	45	45	Working Capital $Mil
2	3	3	0	2	0	—	—	—	—	—	Long-Term Debt $Mil
10	14	15	13	17	17	19	29	48	63	66	Total Equity $Mil
—	0.25	0.19	—	0.11	—	—	—	—	—	—	Debt/Equity

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TTM	Valuation
66.7	13.7	84.8	—	29.9	70.9	66.7	27.5	87.7	78.1	47.9	Price/Earnings
—	0.5	3.5	—	1.5	3.4	3.5	1.6	5.2	4.7	2.4	P/E vs. Market
1.3	1.3	1.5	6.4	2.9	2.2	3.4	3.8	7.7	7.0	4.6	Price/Sales
3.3	2.9	2.1	8.6	4.9	4.1	4.8	6.3	11.3	8.0	5.3	Price/Book
—	8.5	22.5	54.6	31.4	47.9	144.9	17.6	70.4	137.0	39.5	Price/Cash Flow

Growth Rates Compound Annual

Grade: B	1 Yr	3 Yr	5 Yr	10 Yr
Revenue %	6.9	37.6	19.7	95.2
Operating Income %	0.1	250.7	31.7	—
Earnings/Share %	3.6	60.6	15.7	—
Dividends %	—	—	—	—
Book Value/Share %	28.8	42.7	26.9	21.0
Stock Total Return %	-52.6	32.8	25.1	31.3
+/- Industry	-31.0	24.0	6.1	20.9
+/- Market	-39.2	30.8	19.3	30.1

Profitability Analysis

Grade: C	Current	5 Yr Avg	Ind	Mkt
Return on Equity %	13.8	15.5	46.8	21.8
Return on Assets %	11.0	11.3	21.9	9.0
Fixed Asset Turns	9.6	14.7	34.3	7.3
Inventory Turns	183.7	109.8	31.4	12.8
Revenue/Employee $K	474.7	502.8*	161.6	949.5
Gross Margin %	47.7	46.0	18.9	31.9
Operating Margin %	14.4	9.0	7.6	17.8
Net Margin %	9.6	8.1	4.4	9.3
Free Cash Flow/Rev %	—	—	3.8	0.1
R&D/Rev %	2.5	0.0	—	11.0

Financial Position

Grade: B	12-07 $Mil	03-08 $Mil
Cash	30	35
Inventories	0	0
Receivables	32	25
Current Assets	68	62
Fixed Assets	11	13
Intangibles	3	3
Total Assets	87	84
Payables	14	10
Short-Term Debt	2	2
Current Liabilities	23	16
Long-Term Debt	—	—
Total Liabilities	24	18
Total Equity	63	66

Valuation Analysis

	Current	5 Yr Avg	Ind	Mkt
Price/Earnings	47.9	66.2	16.2	19.8
Forward P/E	30.0	—	—	14.1
Price/Cash Flow	39.5	83.6	7.8	12.8
Price/Free Cash Flow	—	—	21.0	22.7
Dividend Yield %	—	—	—	2.5
Price/Book	5.3	6.9	7.4	3.9
Price/Sales	4.6	4.8	0.8	2.6
PEG Ratio	1.1	—	—	1.3

*3Yr Avg data is displayed in place of 5Yr Avg

Quarterly Results

Revenue $Mil	Jun 07	Sep 07	Dec 07	Mar 08
Most Recent Period	16.2	15.3	32.6	20.5
Prior Year Period	19.8	20.2	18.1	16.3

Rev Growth %	Jun 07	Sep 07	Dec 07	Mar 08
Most Recent Period	-18.0	-24.4	80.4	25.9
Prior Year Period	67.7	57.3	10.9	-5.0

Earnings Per Share $	Jun 07	Sep 07	Dec 07	Mar 08
Most Recent Period	0.01	0.04	0.21	0.07
Prior Year Period	0.08	0.09	0.06	0.03

Industry Peers by Market Cap

	Mkt Cap $Mil	Rev $Mil	P/E	ROE%
Fuel Tech, Inc.	355	85	47.9	13.8
Veolia Environnement	26290	44650	17.4	15.5
Pentair, Inc.	3592	3457	12.1	15.0

Major Fund Holders

	% of shares
	—
	—
	—

Morningstar's Approach to Rating Stocks

Our Key Investing Concepts

- Economic Moat
- Discounted Cash Flow
- Discount Rate
- Fair Value
- Uncertainty
- Margin of Safety
- Consider Buying/Consider Selling
- Stewardship Grades

At Morningstar, we evaluate stocks as pieces of a business, not as pieces of paper. We think that purchasing shares of superior businesses at discounts to their intrinsic value and allowing them to compound their value over long periods of time is the surest way to create wealth in the stock market.

We rate stocks 1 through 5 stars, with 5 the best and 1 the worst. Our star rating is based on our analyst's estimate of how much a company's business is worth per share. Our analysts arrive at this "fair value estimate" by forecasting how much excess cash--or "free cash flow"--the firm will generate in the future, and then adjusting the total for timing and risk. Cash generated next year is worth more than cash generated several years down the road, and cash from a stable and consistently profitable business is worth more than cash from a cyclical or unsteady business.

Stocks trading at meaningful discounts to our fair value estimates will receive high star ratings. For high-quality businesses, we require a smaller discount than for mediocre ones, for a simple reason: We have more confidence in our cash-flow forecasts for strong companies, and thus in our value estimates. If a stock's market price is significantly above our fair value estimate, it will receive a low star rating, no matter how wonderful we think the business is. Even the best company is a bad deal if an investor overpays for its shares.

Our fair value estimates don't change very often, but market prices do. So, a stock may gain or lose stars based just on movement in the share price. If we think a stock's fair value is $50, and the shares decline to $40 without much change in the value of the business, the star rating will go up. Our estimate of what the business is worth hasn't changed, but the shares are more attractive as an investment at $40 than they were at $50.

Because we focus on the long-term value of businesses, rather than short-term movements in stock prices, at times we may appear out of step with the overall stock market. When stocks are high, relatively few will receive our highest rating of 5 stars. But when the market tumbles, many more will likely garner 5 stars. Although you might expect to see more 5-star stocks as the market rises, we find assets more attractive when they're cheap.

We calculate our star ratings nightly after the markets close, and issue them the following business day, which is why the rating date on our reports will always be the previous business day. We update the text of our reports as new information becomes available, usually about once or twice per quarter. That is why you'll see two dates on every Morningstar stock report. Of course, we monitor market events and all of our stocks every business day, so our ratings always reflect our analyst's current opinion.

Economic Moat

This is our assessment of a firm's ability to earn returns consistently above its cost of capital in the future, usually by virtue of some competitive advantage. Competition tends to drive down such economic profits, but companies

Morningstar Research Methodology for Valuing Companies

Competitive Analysis → **Economic Moat Rating** → Company Valuation → **Fair Value Estimate** → Uncertainty Assessment → ★★★★★

Competitive Analysis
Analyst conducts company and industry research:

- Management interviews
- Conference calls
- Trade-show visits
- Competitor, supplier, distributor, and customer interviews

Economic Moat Rating
The depth of the firm's competitive advantage is rated:

- None
- Narrow
- Wide

Company Valuation
Analyst considers company financial statements and competitive position to forecast future cash flows.

Assumptions are input into a discounted cash-flow model.

Fair Value Estimate
DCF model leads to the firm's Fair Value Estimate, which anchors the rating framework.

Uncertainty Assessment
An uncertainty assessment establishes the margin of safety required for the stock rating.

★★★★★
★
★★
★★★
★★★★
★★★★★

The current stock price relative to fair value, adjusted for uncertainty, determines the rating.

that can earn them for an extended time by creating a competitive advantage possess an economic moat. We see these companies as superior investments.

We're big fans of companies that are low-cost producers, create high switching costs for their customers, or have strong brands or long-lasting patents, because all of these characteristics allow companies to protect their competitive position. For example, Tiffany is far more profitable than a run-of-the-mill jewelry chain because it has a strong brand that creates a moat around its business, allowing it to charge more than competitors.

Discounted Cash Flow

This is a method for valuing companies that involves projecting the amount of cash a business will generate in the future, subtracting the amount of cash that the company will need to reinvest in its business, and using the result to calculate the worth of the firm. We use this technique to value nearly all of the companies we cover.

Discount Rate

We use this number to adjust the value of our forecasted cash flows for the risk that they may not materialize. For a profitable company in a steady line of business, we'll use a lower discount rate, also known as "cost of capital," than for a firm in a cyclical business with fierce competition, since there's less risk clouding the firm's future.

Fair Value

This is the output of our discounted cash-flow valuation models, and is our per-share estimate of a company's intrinsic worth. We adjust our fair values for off-balance sheet liabilities or assets that a firm might have--for example, we deduct from a company's fair value if it has issued a lot of stock options or has an under-funded pension plan. Our fair value estimate differs from a "target price" in two ways. First, it's an estimate of what the business is worth, whereas a price target typically reflects what other investors may pay for the stock. Second, it's a long-term estimate, whereas price targets generally focus on the next two to 12 months.

Uncertainty

To generate the Morningstar Uncertainty Rating, analysts consider factors such as sales predictability, operating leverage, and financial leverage. Analysts then classify their ability to bound the fair value estimate for the stock into one of several uncertainty levels: Low, Medium, High, Very High, or Extreme. The greater the level of uncertainty, the greater the discount to fair value required before a stock can earn 5 stars, and the greater the premium to fair value before a stock earns a 1-star rating.

Margin of Safety

This is the discount to fair value we would require before recommending a stock. We think it's always prudent to buy stocks for less than they're worth.The margin of safety is like an insurance policy that protects investors from bad news or overly optimistic fair value estimates. We require larger margins of safety for less predictable stocks, and smaller margins of safety for more predictable stocks.

Consider Buying/Consider Selling

The consider buying price is the price at which a stock would be rated 5 stars, and thus the point at which we would consider the stock an extremely attractive purchase. Conversely, consider selling is the price at which a stock would have a 1 star rating, at which point we'd consider the stock overvalued, with low expected returns relative to its risk.

Stewardship Grades

We evaluate the commitment to shareholders demonstrated by each firm's board and management team by assessing transparency, shareholder friendliness, incentives, and ownership. We aim to identify firms that provide investors with insufficient or potentially misleading financial information, seek to limit the power of minority shareholders, allow management to abuse its position, or which have management incentives that are not aligned with the interests of long-term shareholders. The grades are assigned on an absolute scale--not relative to peers--and can be interpreted as follows: A means "Excellent," B means "Good," C means "Fair," D means "Poor," and F means "Very Poor."