3D ADVISORS

This 3DAdvisors Report Covers:	
✓	**Insider Trading:** Insider Trading Behavior
	Accounting: Quality of Earnings Issues
	Governance: Corporate Governance Issues
✓	**Fundamentals:** Fundamental Issues

As Production Risks Increase, CEO Sells Entire Stake MEMC Electronic Materials Inc. (NYSE:WFR) Update

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Business Description

MEMC Electronic Materials, Inc. produces wafers for the semiconductor industry worldwide. The Company's product categories include polished wafers, such as OPTIA and annealed products; epitaxial wafer that contains AEGIS product; and test/monitor wafers. These wafers are used for the manufacture of various types of semiconductor devices, including microprocessor, memory, logic, and power devices ranging from 100 millimeters to 300 millimeters in diameter. The semiconductor devices built by the Company's customers are used in computers, cellular phones and other mobile electronic devices, automobiles, and other consumer and industrial products. Its customers include semiconductor device manufacturers, including the memory, microprocessor, and applications specific integrated circuit manufacturers, as well as foundries in North America, Europe, Japan, and the Asia Pacific. MEMC Electronic Materials was founded in 1984 and is based in St. Peters, Missouri.

Summary of 3DAdvisors Findings for WFR

- **Fundamentals:** Problems in ramping new polysilicon production exposes risks
- **Fundamentals:** Risks associated with new production temper guidance
- **Insider Trading:** Production questions mount, chief executive sells entire stake
- **Miscellaneous:** Lawsuits reflect aggressive, high risk style of CEO

Discussion of 3DAdvisors Findings for WFR

The fundamental challenges facing the Company and executive behavior have continued to hold our attention on MEMC since our last update published on 03/11/08. On 04/24/08, the Company reported 1Q08 results that were more or less in line with its previously lowered guidance, which it had cut as a result of problems at its polysilicon production facility in Pasadena, TX. But the Company's cautious forecast for 2Q08 was below what most analysts had been expecting and the following day the shares lost more than 6% on over twice the average volume to close at $70.50 and would sink further to an intra-day low of $62.01 on 04/30/08 after an analyst downgrade. Cleary analysts and investors were becoming increasingly nervous about the Company's ability to continue the strong revenue and earnings momentum that had made it such a stellar performer over the past two years.

Our take away from the 1Q08 results and conference call, as well as from several recent news items concerning events at the Pasadena plant, is that the Company has become ever more dependant on spot sales of polysilicon, and the risks associated with such a position appear to be going up rapidly. First off, it is evident that the traditional semiconductor side of its business is suffering from declining demand and falling prices. Meanwhile, the Company has been in a rush to add polysilicon production capacity – now more than ever so that spot sales can pick up the slack from the deteriorating semiconductor side – which has resulted in a series of mishaps that have interrupted production and forced it to further draw down inventories. But still, the Company was unable to meet all its commitments to contract customers in the most recent quarter and, most notably, had to drastically reduce highly profitable sales of polysilicon on the spot market.

With very low inventories offering little to no wiggle room, and with the Company needing to add new production capacity more than ever to meet its guidance, it appears risks have risen quite significantly. Underscoring the heightened risk is the trading behavior of CEO **Nabeel Gareeb**, who on 05/02/08, just 8 days after the release of the first quarter results, exercised 575,000 non-expiring options (500,000 of which vested that day) and immediately sold the shares, effectively selling off 100% of his actionable position. It goes without saying that such behavior from any CEO is extremely rare, all the more so in this case considering that Gareeb sold the shares at a weighted average price of just $65.29, more than 31% off the recent high of $96.08 hit on 12/24/07.

The cornerstone of our thesis is not that spot prices will suddenly collapse. It is more based on the fact that the Company has consistently understated and obfuscated the role spot sales of polysilicon have played in its margin expansion and revenue and earnings growth which have driven the stock to a very rich valuation. The issue is that the Company is much more dependent on this part of its business than it has been willing to admit, and when prices do begin to fall (which they eventually will), or if its ability to produce polysilicon is impeded to the extent that large quantities can't be sold in the spot market, the impact on earnings and margins could be quite dramatic. We do not believe these risks are properly understood by the market nor reflected in the current stock price, despite the fact that the shares are 30% off their recent highs. The trading behavior of management strongly suggests they don't believe the market has the risk profile correct either.

<u>Fundamentals: Problems in ramping new polysilicon production exposes risks</u>

Before the market open on 04/03/08 the Company disclosed that it had been experiencing unexpected problems at its Pasadena, TX polysilicon plant "during the first quarter". Given that it made this disclosure two-thirds of the way through the quarter, it is unclear when the problems first surfaced. What is clear, however, is that the problems were concentrated in its recently completed Unit 3, which had experienced several unexpected chemical build-ups which forced the Company to take the unit down for several days with each incident and perform unscheduled maintenance. This also caused the Company to put off scheduled maintenance on Units 1 and 2. Overall, the net effect was a 20% reduction in the plant's overall utilization rate compared to 4Q08, which in turn caused the Company to trim its revenue guidance by about 10% and reduce its gross margin guidance by 280 basis points. The shares opened at $67.98, 11% below the prior day's close and traded over 20 million shares on the session before closing at $73.76. Clearly investors were rattled by the disclosure of yet another problem at this plant. See the table below which summaries Company disclosures concerning recent events at the plant.

Unlike the problems reported last September that were the result of a construction mishap tied to the new expansion units that caused an inadvertent loss of power to the whole site, this problem was associated with the Company's efforts to bring up the new Unit 3. There were a couple of subtleties in the press release that caught our attention. First, Gareeb was quoted, "It is unfortunate that issues with our new unit prevented us from taking advantage of available market opportunities…" suggesting to us that the clear intent is to sell the plants output on the highly lucrative spot market. Later in the same quote he acknowledges that the plant interruption caused "a significant reduction in spot polysilicon sales volume compared to the fourth quarter. The reduction in spot polysilicon sales was intended to minimize disruptions to our wafer customers." So not only did the problems with the new Unit 3 result in the Company's not being able to seize "available market opportunities", it also caused a significant reduction in overall spot sales of polysilicon in order to avoid impacting contract customers. The Company later disclosed in the 1Q08 conference call that not all commitments to wafer (i.e. contract) customers were met in the quarter. Bottom line, the Company chose to keep some level of spot sales going rather than meet all the needs of its contract customers; otherwise it most likely would have sustained more significant damage to the quarter's results. It is unclear if the Company has suffered any damage to its relationship with contract customers.

In addition to suggesting the dependence on spot sales of polysilicon, these recent problems at the plant point up the overall risk: that it is difficult and risky to bring new polysilicon capacity online. In fact, another, more recent event at the plant that did not cause the Company to shut the plant down or adjust its guidance nonetheless demonstrates how difficult and fraught with risk polysilicon production can be. On 04/24/08 the Company disclosed that it had experienced a leak in a transport line carrying STF (silane) a raw material gas used in the production process that sent "approximately" 18 people to the hospital for "further evaluation and treatment". We find it an interesting coincidence that the problems at the plant were disclosed late in the evening the day of the 1Q08 conference call.

To understand the significance of this event further, we consulted with a semiconductor fabrication veteran who works as an expert witness on intellectual property cases in the industry. He explained that silane, in his words, "is incredibly dangerous and nasty stuff" that is so volatile that it tends to detonate on contact with air, and once a leak develops, it can be extremely difficult to control and can lead to a catastrophic event, which the Company was fortunately able to avoid. And even though he was reluctant to conclude, based on what the Company has disclosed, that the accident may have been caused by its taking short cuts in its haste to bring up the plant to meet financial targets, one of the first things he asked was whether anyone was hurt and if the Company had disclosed any legal liability as a result of the accident.

Overall, our expert explained that bringing up these plants can be a difficult "teething" process and it can take some time to achieve a stable level of desired production. There are frequently unanticipated surprises, and because some of the materials used are extremely hazardous (e.g. silane gas), there are a number of inherent risks associated with the process and under no circumstances would it be wise to cut corners, compromise safety or otherwise take on any additional risks.

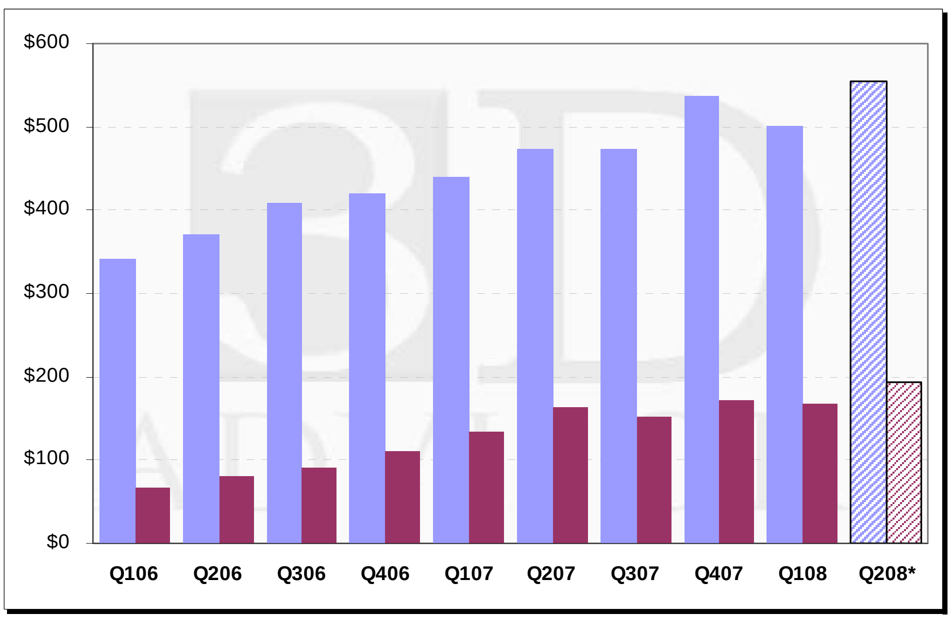
Date	Summary of Plant Problems from Press Releases	Change to Guidance?
09/04/07	**MEMC Provides Update to Third Quarter Guidance.** "The company reported that mid-last week, a construction incident caused by one of its electrical subcontractors working on the Pasadena, Texas, polysilicon facility expansion resulted in a power outage to the entire site... The facility is now in the late stages of recovery, but the abrupt nature of this incident, combined with the rain and thunderstorms in Pasadena, Texas over the last few days, has hampered the facility's ability to recover operations expeditiously. This disruption has also caused the on-going polysilicon expansion project at the site to be additionally delayed… The combined effect of these events has resulted in an approximate one week impact to the company's output for the quarter."	YES
04/03/08	**MEMC Provides First Quarter Update.** "The company reported that during the first quarter it experienced accelerated buildup of chemical deposits inside the new expansion unit ("Unit 3") at its Pasadena, Texas facility. These buildups occurred multiple times, and each instance required downtime of several days for premature maintenance to clean and re-stabilize the unit… The combination of these items caused the utilization of the Pasadena facility to be approximately 20% lower than the fourth quarter, resulted in much lower than anticipated output, and caused the company to not achieve the financial targets for the first quarter as disclosed on January 24, 2008."	YES
04/24/08	**MEMC Provides Status Update After Raw Material Release.** "The company reported that at approximately 4:20 PM this afternoon a transfer line from a transport vehicle developed a leak and caused a release of STF, a raw material gas used in the manufacturing process. The leak was quickly contained by the on-site emergency response team and the flow of material was stopped...Approximately 18 people were transported to area hospitals for further evaluation and/or treatment.	NO
04/29/08	**MEMC Provides Status Update on Pasadena facility**…"which experienced a raw material release last week. As previously disclosed, the company had proactively shut down front-end (silane) operations to perform a thorough safety review to ensure a safe working environment. The company had resumed production on Friday, 04/25/08…we continue to believe this incident was due to a faulty transfer line, and we will thoroughly investigate this further through third party analysis."	NO

Fundamentals: Risks associated with new production temper guidance

These challenges in bringing up new polysilicon capacity may help explain the cautious 2Q08 guidance the Company offered that so disappointed investors. At end of his prepared remarks during the 1Q08 conference call, CFO **Ken Hannah** prefaced the 2Q08 guidance as follows:

> Now turning to business conditions, demand indications from semiconductor application customers are a bit weaker than is typical resulting in additional price declines from first quarter levels. Demand from solar applications customers, however, continues to be strong. Although we are pleased with the results of the actions we have taken to address the issues that led to the lower polysilicon volume in the first quarter, we feel it is prudent to be extra cautious regarding our polysilicon output expectations in the second quarter. As a result, we're targeting revenues of approximately $540 million to $570 million for the second quarter. In addition, we're targeting gross margin of approximately 54% to 55% with operating expenses of less than $40 million.

Figure 1. Quarterly Revenue (Blue Bars) and Net Income (Red Bars), Millions of $. Shaded bars for Q208 are 3DAdvisors, LLC estimates based on Company provided guidance. Historical and projected figures are net of any impact from valuation of the Suntech warrants. Source: WFR SEC Filings and 3DAdvisors, LLC estimates.

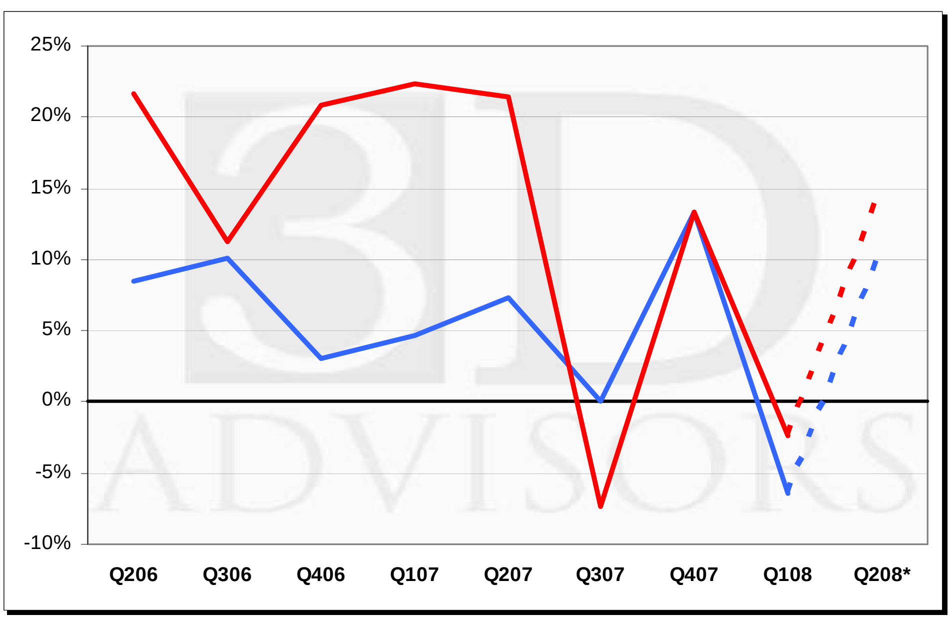


On average, analysts had been expecting revenue of $565.8 million as compared to $472.7 million reported for 2Q07 and the $501.4 million just reported for 1Q08. This prompted numerous questions during the conference call on how much the Company was counting on new production capacity from Units 3 and 4 to reach the upper end or exceed its guidance in 2Q08. One brief exchange seemed to sum up the concerns, where the analyst asks if the Company needs new production to exceed guidance, and Gareeb seemed to stumble around and is reluctant to acknowledge the need for the new production, but finally admits the new production is being counted on to make the numbers.

> **Analyst:** Do you need this for mono silane unit and the incremental reactors in Pasadena [Units 3 and 4] to come online and actually start outputting capacity in order to, I guess, exceed your '08 guidance?
>
> **Nabeel Gareeb, CEO:** What we had said was that this will allow us to... so what we said three weeks ago was that our back-end, our back half is going to be... or our recovery is going to be back-half loaded to make progress towards the full-year targets. If you look at the $700 million to $800 million type of numbers, you could conceivably argue that if you run at a high enough utilization, you're not going to need it, but however we need to be cautious and so yes, we're going to assume that we will need some output from those, but the specific quantity and the specific ramp we're not going to specify until probably July. And even then we may just give you an idea of what that is.
>
> **Analyst:** So if the current units [Units 1, 2 and 3] all operate accordingly, you can still hit those numbers without new concerns?
>
> **Nabeel Gareeb, CEO:** Well, I mean we were counting on Units 3, on Units 4, and the additional poly reactor capacity to give us the second quarter boost otherwise we end up running at very high utilization levels which we think would make it a very risky proposition.

Figure 2 below shows the sequential growth rates for revenue and net income, both in recent quarters and for its just issued guidance for 2Q08, and illustrates how growth has been impacted by problems in Pasadena. The dips in growth rates in 3Q07 and 1Q08 were a direct result of problems at the plant.

Figure 2. Sequential Growth Rates for Revenue (Blue) and Net Income (Red). Dotted line shows 3DAdvisors, LLC estimated growth rates based on Company issued guidance for 2Q08. Source: WFR SEC Filings and 3DAdvisors, LLC estimates.



And finally, we found this exchange with an analyst interesting in that Gareeb admits that the production problems caused the Company to not meet all its delivery requirements to contract customers, but there is also a twinge of arrogance when he suggests that those customers have no where else to go.

> **Analyst:** Since you did have some issues in the first quarter, getting as much poly as you had thought online, do you have any customers who you think walked away fairly disappointed and will probably end up being short themselves to make cells or wafers?
>
> **Nabeel Gareeb, CEO:** We've talked about that briefly. We said that we had a significant decline in our spot polysilicon sales volume for that very purpose, basically we are trying to keep our wafer customers supplied, basically both semi and solar. Yes, we were a little short to our commitments to them. However, we don't know what their alternate suppliers were either. So we wouldn't feel comfortable commenting on that and you'd have to rely on them specifically for those statements.

<u>Insider Trading: As production risks increase, CEO sells entire stake</u>

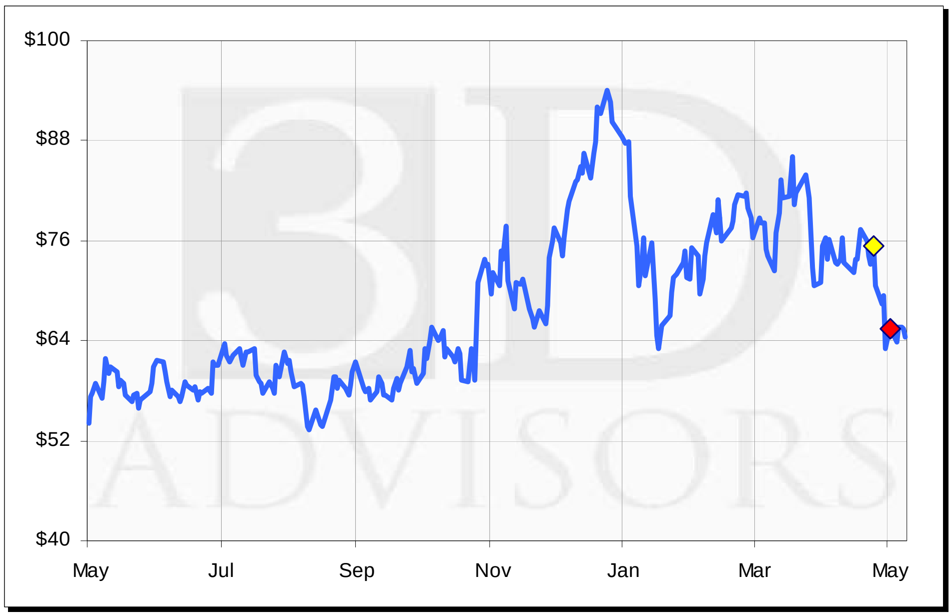
It is not uncommon practice among this management team for them to exercise derivative equity as soon as or shortly after it vests, and then sell all the acquired shares. In fact, this type of aggressive behavior by virtually the entire management team, in combination with subsequent across the board holdings reductions in excess of 90% in most cases, is what originally caused us to begin investigating MEMC beyond the trading. This type of rare, collective behavior by executives in all the key operating positions (manufacturing, marketing, R&D, etc.) often implies that a management team feels the stock is fully valued, or there is some risk that the shares could drop unexpectedly and precipitously leaving insiders inclined to take profits at any opportunity.

Based on our prior observations concerning the trading habits of this particular group of insiders, we anticipated that when Nabeel Gareeb had 500,000 options vest on 05/02/08 (strike price $11.93), that he might very well act, but were particularly interested to see if he’d pull the trigger this time around given the recent difficulties the Company has had in meeting its guidance and the associated increase in risks that are described above. That and the fact that the stock is now roughly 30% off the highs reached last December gave us additional incentive to monitor his activity carefully as the vesting date approached.

Hence, Gareeb did not surprise us with his trade on 05/02/08. He not only acted on all 500,000 options that vested that day, but he also exercised and sold 75,000 additional options from two separate option series that vested only days earlier. None of the options was scheduled to expire before 2014. The exercise of 575,000 options and immediate sale left Gareeb with 100,000 shares of common, but we do not consider these shares as part of his actionable position since he is required to hold these shares in accordance with his employment agreement that was entered into in October, 2006. So in effect, he liquidated his entire actionable equity position. The transactions netted him approximately $30.8 million in pre-tax profits.

The Form 4 states that the reported transactions were made pursuant to a plan intended to comply with Rule 10b5-1(c), a plan which he entered into on 01/31/07. As we covered in the full report on the Company back on 02/13/07, the original disclosure of this particular trading plan was one of the more obfuscated disclosures of its type that we had seen and we recommend our clients refer to our earlier report for details. Suffice it to say, the number of shares to be sold under the plan are not disclosed, nor are any of the other plan details.

Figure 3. WFR Daily Closing Price, 05/01/07 through 05/09/08. Yellow diamond is the date the Company reported 1Q08 results; Red diamond is the date that Nabeel Gareeb exercised 575,000 options and sold the shares. Source: Reuters and WFR SEC Filings.



There were some other aspects of Gareeb's recent activity that are worth noting. First, he has been exercising options progressively closer to the vesting dates over the past several years, perhaps indicating an increasing urgency to unload his derivative equity sooner rather than later. More interestingly, as measured by the difference in prices between the trade date and the price thirty days earlier, this is the first time he has sold into significant price weakness. The table below summarizes both of these aspects of his trades since August of 2005.

The only other recent seller among the management team was SVP of Sales, Customer Service and Marketing **John Kauffmann** who sold 10,204 shares on 03/18/08 under his 10b5-1 plan that was adopted on 02/07/08. This transaction accounted for a more modest but still significant 38% of his actionable position. Over the past 52 weeks, however, he has sold 156,804 shares equal to 90% of his position.

And finally, it is worth mentioning that in our last update on 03/11/08, we reported on the trades of SVP of Manufacturing Operations **Sean Hunkler**, who had sold 92% of his actionable position over the prior 4 month period. With the problems the Company has had in its manufacturing operations over the last couple of months and the reliance it has placed on ramping up new production to make current guidance, Hunkler's activity certainly sticks out in hindsight.

Trade Date(s)	Time Between Vesting of Options and Exercise/Trade Date(s)	% Diff Between Trade Date Price and Price 30 Days Earlier
08/02/05 to 09/30/05	Most options had been vested for years	+10.6%
01/31/07	Options had been vested for 10 months	+29.9%
05/07/07 to 05/08/07	Most options had been vested at least 1 year; rest vested 6 to 15 days before trades	-7.2%
11/02/07	Options vested 7 days before trade	+14.7%
05/02/08	Options vested 0 to 5 days before trade	-14.4%

Miscellaneous: Lawsuits reflect aggressive, high risk style of CEO

In the 1Q08 SEC Form 10-Q that was just filed on 05/05/08, the Company provides the usual update on various lawsuits. We have been monitoring these closely at MEMC, not just for the usual reason that there may be meaningful financial risk should a significant judgment be imposed on the Company, but also because these lawsuits provide some insight into the way the Company operates in the marketplace that may represent additional risk. The lawsuits involving Semi-Materials Co., Ltd. (Semi) in particular caught our attention.

Semi first filed suit against the Company on 09/28/06 for breach of contract, fraud, unjust enrichment and conversion all related to a series of purchase orders for chunk polysilicon and polysilicon solar ingot. In the 10-Q, the Company just says there was a dispute over the agreement, and that Semi claimed they reached a settlement regarding the dispute, but WFR says no settlement was reached.

Nabeel Gareeb was profiled in Forbes on 04/21/08 and was portrayed as a highly successful manager credited with turning around MEMC, but has a reputation for using brutal and sometimes questionable tactics. The article sites this dispute with Semi as an example:

> Semi-Materials, a South Korean chip supplier, says it signed a $2.7 million contract to buy poly at $85 a pound for the first shipments, and $18 a pound for the rest, and also agreed to buy $20 million of crystal ingots in another high-low deal. Yet, Semi-Materials claims in a suit, MEMC delivered the high-priced initial shipments but never came through with all the lower-priced poly and refused to refund it $5 million in overpayments. The pair settled last year for that amount plus some poly, but Semi-Materials now says MEMC never coughed that up either. In court documents MEMC insists its contracts always included a

> standard opt-out clause. Finance Chief Hannah says poly supplies were so tight at the time that desperate customers would fax purchase orders to MEMC and later claim they had a deal. But he adds: "Some of these lawsuits that you read about are [Gareeb's] style, which says, 'Listen, there's no contractual obligation here and I don't really give a [hoot] about our relationship. I'm not selling you that poly.'"

In the 10-Q, the Company has disclosed that the trial judge found in favor of Semi's claim that the parties had in fact reach a binding settlement agreement. MEMC is appealing the decision.

The article goes on to make an interesting assertion about how the Company books revenue in these "high-low" purchase contracts, perhaps another reflection of Gareeb's ultra aggressive approach:

> In a November deposition the company's sales chief admitted that MEMC booked poly sales at the higher prices but not at the lower ones. Those high-low contracts, along with other financial irregularities, eventually got MEMC in trouble with its auditors at KPMG, which forced the company to restate its 2005 earnings by $38 million and put an end to the unusual pricing scheme.

So it seems the Company in this case delivered the high priced polysilicon to its customer, booked the revenue, but then broke the agreement and failed to deliver the lower priced product. Aside from the accounting issues, if true, we wonder what buyers will want to deal with MEMC once tight supplies ease and prices begin to drop.

And finally, we should also mention that in the 1Q08 SEC Form 10-Q the Company also discloses that Semi has filed a new lawsuit (03/31/08) claiming that the Company has breached a contract with Semi and an affiliate to be exclusive sales agents in China and Korea. We're guessing that MEMC no doubt found a better deal elsewhere and has chosen to ignore this contract, too.