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**

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**

For the transition period from to

Commission File Number 000-30789

ENTEGRIS, INC.

(Exact name of registrant as specified in its charter)

Delaware **(State or Other Jurisdiction of Incorporation or Organization)**	**41-1941551** **(I.R.S. Employer Identification No.)**

3500 Lyman Boulevard, Chaska, MN 55318
(Address of principal executive offices and zip code)

(952) 556-3131
(Registrant's telephone number, including area code)

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

Title of Class

Common Stock, $0.01 Par Value

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

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 15(d) of the Act. ☐ Yes ☒ No

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 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 registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (Check one):

Large Accelerated Filer ☒ Accelerated Filer ☐ Non-Accelerated Filer ☐

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 voting stock held by non-affiliates of the registrant, based on the last sale price of the Common Stock on June 30, 2008, the last business day of registrant's most recently completed second fiscal quarter, was $712,989,102. Shares held by each officer and director of the registrant and by each person who owned 10 percent or more of the outstanding Common Shares have been excluded from this computation in that such persons may be deemed to be affiliates of the registrant. This determination of affiliate status for this purpose is not necessarily a conclusive determination for other purposes.

As of January 31, 2009, 113,408,201 shares of the registrant's Common Stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Document	Incorporated into Form 10-K
Portions of the Definitive Proxy Statement, to be filed subsequently	Part III

PART I

Item 1. Business.

THE COMPANY

Entegris is a leading provider of a wide range of products and materials used in processing and manufacturing in the semiconductor and other high-technology industries. For the semiconductor industry, our products assure the integrity of critical materials and components throughout the semiconductor manufacturing process, from raw silicon wafer manufacturing to packaging of completed integrated circuits. For other high-technology applications, our products and materials are used to manufacture flat panel displays, high-purity chemicals, photoresists, solar cells, gas lasers, optical and magnetic storage devices, fiber optic cables, fuel cells and critical components for aerospace, glass manufacturing and biomedical applications. We sell our products worldwide through a direct sales force and through distributors in selected regions.

The Company was incorporated in Delaware in March 2005 in connection with a strategic merger of equals transaction between Entegris, Inc., a Minnesota corporation (Entegris Minnesota), and Mykrolis Corporation, a Delaware corporation (Mykrolis). Effective August 6, 2005, Entegris Minnesota and Mykrolis were each merged into the Company with the Company as the surviving corporation to carry on the combined businesses. Unless the context otherwise requires, the terms "Entegris", "we", "our", or the "Company" mean Entegris, Inc., a Delaware corporation, and its subsidiaries; the term "Mykrolis" means Mykrolis Corporation and its subsidiaries when referring to periods prior to August 6, 2005; "Entegris Minnesota" means Entegris, Inc., a Minnesota corporation and its subsidiaries other than Entegris when referring to periods prior to August 6, 2005; and the term "Merger" refers to the transactions effected on August 6, 2005 described above. On August 11, 2008 we acquired Poco Graphite (POCO), a privately held company based in Decatur, Texas. The addition of POCO both augmented our base of business in the semiconductor industry and provided growth opportunities in an array of other high-performance markets. The acquisition of POCO also expanded our materials science capabilities to include graphite and silicon carbide and added a consumable product line made from those materials to our portfolio of products.

We offer a diverse product portfolio that includes more than 16,000 standard and customized products that we believe provide the most comprehensive offering of products and services to maintain the purity and integrity of critical materials used by the semiconductor and other high-technology industries. Our products include both unit driven and capital expense driven products. Unit-driven and consumable products are consumed or exhausted during the manufacturing process and rely on the level of semiconductor and other manufacturing activity to drive growth. Capital expense driven products rely on the expansion of manufacturing capacity to drive growth. Our unit-driven and consumable product class includes membrane-based liquid filters and housings, metal-based gas filters, resin-based gas purifiers, wafer shippers, disk-shipping containers and test assembly and packaging products and consumable graphite and silicon carbide components used in plasma etch, ion implant and chemical vapor deposition processes in semiconductor manufacturing. Our capital expense-driven products include our components, systems and subsystems that use electro-mechanical, pressure differential and related technologies, to permit semiconductor and other electronics manufacturers to monitor and control the flow and condition of process liquids used in these manufacturing processes, and our process carriers that protect the integrity of in-process wafers. Unit-driven and consumable products, including service revenue, accounted for approximately 65%, 60% and 59% of our net sales for fiscal years 2008, 2007 and 2006, respectively, and capital expense-driven products accounted for approximately 35%, 40% and 41% of our net sales for the fiscal years 2008, 2007 and 2006, respectively.

Our Internet address is *www.entegris.com*. On this web site, under the "Investor Relations—SEC Filings" section, we post the following filings as soon as reasonably practicable after they are electronically filed with, or furnished to, the U.S. Securities and Exchange Commission (SEC): our annual, quarterly, and current reports on Forms 10-K, 10-Q, and 8-K; our proxy statements; and any amendments to those reports or statements. All such filings are available on our web site free of charge. The SEC also maintains a web site (*www.sec.gov*) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The content on our web site as referred to in this Form 10-K is not incorporated by reference into this Form 10-K unless expressly noted.

SEMICONDUCTOR INDUSTRY BACKGROUND

Semiconductors, or integrated circuits, are the building blocks of today's electronics and the backbone of the information age. The market for semiconductors has grown significantly over the past decade. This trend is expected to continue due to increased Internet usage and the continuing demand for applications in data processing, wireless communications, broadband infrastructure, personal computers, handheld electronic devices and other consumer electronics.

The semiconductor materials industry is comprised of a wide variety of materials and consumables that are used throughout the semiconductor production process. The extensive and complex process of turning bare silicon wafers into finished integrated circuits is dependent upon a variety of materials used repeatedly throughout the manufacturing process, such as silicon, chemicals, gases and metals. The handling and purification of these materials during the integrated circuit manufacturing process requires the use of a variety of products, such as liquid and gas filters and purifiers, fluid and gas handling components and wafer shippers and process carriers.

The manufacture of semiconductors is a highly complex process that consists of two principal segments: front-end processes and back-end processes. The front-end process begins with the delivery of raw silicon wafers from wafer manufacturers to semiconductor manufacturers and requires hundreds of highly complex and sensitive manufacturing steps, during which a variety of materials, including chemicals and gases, are applied to the silicon wafer to build the integrated circuits on the wafer surface. We offer products for each of the primary front-end process steps, which are listed below, as well as products to transport in-process wafers between each of these steps.

Deposition. Deposition refers to placing layers of insulating or conductive materials on a wafer surface in thin films that make up the circuit elements of semiconductor devices. The two main deposition processes are physical vapor deposition, where a thin film is deposited on a wafer surface in a low-pressure gas environment, and chemical vapor deposition (CVD), where a thin film is deposited on a wafer surface using a gas medium and a chemical bonding process. In addition, electro-plating technology is utilized for the deposition of low resistance conductive materials such as copper. The control of uniformity and thickness of these films through filtration and purification of the fluids and materials used during the process is critical to the performance of the semiconductor circuit and, consequently, the manufacturing yield. In addition, our graphite chamber liners and shower heads are critical expendable components used in the CVD chamber.

Chemical Mechanical Planarization (CMP). CMP flattens, or planarizes, the topography of the surface of the wafer after deposition to permit the patterning of small features on the resulting smooth surface by the photolithography process. Semiconductor manufacturers need our filtration and purification systems to maintain acceptable manufacturing yields through the chemical mechanical planarization process by filtering the liquid slurries, which are solutions containing abrasive particles in a chemical mixture, to remove oversized particles and contaminants that can cause defects on a wafer's surface, while not affecting the functioning of the abrasive particles in the liquid slurries. In addition, manufacturers use our consumable polyvinyl alcohol (PVA) roller brushes to clean the wafer after completion of the CMP process to prepare the wafer for subsequent operations.

Photolithography. Photolithography is the process step that defines the patterns of the circuits to be built on the chip. Before photolithography, a wafer is pre-coated with photoresist, a light-sensitive film composed of ultra-high purity chemicals in liquid form. The photoresist is exposed to specific forms of radiation, such as ultraviolet light, electrons or x-rays, to form patterns that eventually become the circuitry on the chip. This process is repeated many times, using different patterns and interconnects between layers to form the complex, multi-layer circuitry on a semiconductor chip. As device geometries decrease and wafer sizes increase, it is even more critical that these photoresists are dispensed on to the chip with accurate thickness and uniformity, as well as with low levels of contamination, and that the process gases are free of micro-contamination so that manufacturers can achieve acceptable yields in the manufacturing process. Our liquid filtration and liquid dispense systems play a critical role in assuring the pure, accurate and uniform dispense of photoresists on to the wafer. In addition, our gas micro-contamination systems eliminate airborne amine contaminants that can disrupt effective photolithography processes.

Etch and Resist Strip. Etch is the process of selectively removing precise areas of thin films that have been deposited on the surface of a wafer. The hardened photoresist protects the remaining material that makes up the circuits. During etch, specific areas of the film not covered by photoresist are removed to leave a desired circuit pattern. Similarly, resist strip is a process of removing the photoresist material from the wafer after the desired pattern has been placed on the wafer. Emerging advanced etch and resist strip applications require precisely controlled gas chemistries and flow rates in order to achieve precise etch and resist strip characteristics. Our gas filters and purifiers help assure the purity of these process gas streams, and our consumable graphite components deliver, baffle and confine these process gases during the etch process.

Ion Implant. Ion implantation provides a means for introducing impurities into the silicon crystal, typically into selected areas defined by the photolithographic process. This selective implanting of ions into defined areas creates electrically conductive areas that form the transistors of the integrated circuits. Ion implanters have the ability to implant selected elements into the silicon wafers at precise locations and depths by bombarding the silicon surface with a precisely controlled beam of electrically charged ions of specific atomic mass and energy. These ions are embedded into the silicon crystal structure, changing the electrical properties of the silicon. The precision of ion implantation techniques permits customers to achieve the necessary control of this doping process to construct up to 500 billion transistors of uniform characteristics on a 300mm wafer. Since these transistors are the starting point of all subsequent process steps, repeatability, uniformity and yield are extremely important. Our consumable graphite components as well as our proprietary low temperature plasma coating process for core components are critical elements of ion implantation equipment.

Wet Cleaning. Ultra-high purity chemicals and photoresists of precise composition are used to clean the wafers, to pattern circuit images and to remove photoresists after etch. Before processes such as photoresist coating, thin film deposition, ion implantation, diffusion and oxidation, and after processes such as ion implantation and etch, the photoresists must be stripped off, and the wafer cleaned in multiple steps of chemical processes. To maintain manufacturing yields and avoid defective products, these chemicals must be maintained at very high purity levels without the presence of foreign material such as particles, ions or organic contaminants. Our liquid filters and purifiers are used to assure the purity of these chemicals.

Our wafer and reticle carriers are high-purity “mini-environments” which carry wafers between each of the above process steps, protecting them from damage and contamination during these transport operations. Our fluid handling components assure the delivery of pure liquid chemicals to each of these process steps. Front-end wafer processing can involve hundreds of steps and take several weeks. As a result, a batch of 25 fully processed wafers, the maximum number of wafers that can be transported in one of our products, can be worth several million dollars. Since significant value is added to the wafer during each successive manufacturing step, it is essential that the wafer be handled carefully and precisely to minimize damage. Thus, in the case of wafer carriers, precise wafer positioning, highly reliable and predictable cassette interface dimensions and advanced materials are crucial. The failure to prevent damage to wafers can severely impact integrated circuit performance, render an integrated circuit inoperable or disrupt manufacturing operations. Our products enable semiconductor manufacturers to: minimize contamination (semiconductor processing is now so sensitive that ionic contamination in certain processing chemicals is measured in parts per trillion); protect semiconductor devices from electrostatic discharge and shock; avoid process interruptions; prevent damage or abrasion to wafers and materials during automated processing caused by contact with other materials or equipment; prevent damage due to abrasion or vibration of work-in-process and finished goods during transportation to and from customer and supplier facilities; and eliminate the dangers associated with handling toxic chemicals.

Once the front-end manufacturing process is completed, finished wafers are transferred to back-end manufacturers or assemblers. The back-end semiconductor manufacturing process consists of test, assembly and packaging of finished wafers into integrated circuits. Our wafer shippers, wafer and reticle carriers and integrated circuit trays facilitate the storage, transport, processing and protection of wafers through these front-end and back-end manufacturing steps.

Semiconductor manufacturing has become increasingly complex in recent years as new technologies have been introduced to enhance device performance and as larger wafer sizes have been introduced to increase production efficiencies. This increasing complexity of semiconductor devices has resulted in a number of challenges including the need for more complex, higher-precision liquid and gas delivery, measurement, control and purification systems and subsystems in the front-end manufacturing processes and to improve time-to-market, reduce manufacturing costs, improve production quality and enhance product reliability and long-term service and support. To address these challenges, semiconductor equipment companies and device manufacturers are outsourcing the design and manufacture of liquid delivery, measurement, control and purification systems, subsystems, components, and consumables to us and to other well-established subsystem and component companies that have worldwide presence and leading technologies. The design and performance of those liquid delivery systems, subsystems, components and consumables are critical to the front-end semiconductor manufacturing process because they directly affect cost of ownership and manufacturing yields. We continually seek opportunities to work with our customers to address these challenges.

Also in response to these challenges and to achieve continued productivity gains, semiconductor manufacturers have become increasingly focused on materials management solutions that enable them to safely store, handle, process and transport critical materials throughout the manufacturing process to minimize the potential for damage or degradation to their materials and to protect their investment in processed wafers. The need for efficient and reliable materials management is particularly important as new materials are introduced and as 300 mm semiconductor wafer manufacturing becomes the more prevalent manufacturing technology. Processing 300 mm wafers, currently the largest wafer size in a manufacturing environment, is more costly and more complex because of the larger size of these wafers. In addition, new materials and circuit shrinkage create new contamination and material compatibility risks, rendering 300 mm wafers more vulnerable to damage or contamination. These trends will present new and increasingly difficult purification, dispense, shipping, transport, process and storage challenges. We seek to bring our advanced polymer manufacturing and advanced tool design capabilities to bear on these challenges to provide our customers with innovative materials integrity management solutions.

Many of the processes used to manufacture semiconductors are also used to manufacture flat panel displays, magnetic and optical storage devices and fiberoptic cables for telecommunications, resulting in the need for similar filtration, purification, control and measurement capabilities. We seek to leverage our products and expertise in serving semiconductor applications to address these important market opportunities.

OUR BUSINESS STRATEGY

Our objective is to be a global leader providing innovative products and solutions for purifying, protecting and transporting critical materials used in processing and manufacturing in the semiconductor and other high-technology industries. We intend to build upon our position as a worldwide developer, manufacturer and supplier of liquid delivery systems, components and consumables used by semiconductor and other electronic device manufacturers and upon our expertise in advanced specialty materials to grow our business in these and other high value-added manufacturing process markets. Our strategy includes the following key elements:

Comprehensive and Diverse Product Offerings. The semiconductor manufacturing industry is driven by rapid technological changes and intense competition. We believe that semiconductor manufacturers are seeking process control suppliers who can provide a broad range of reliable, flexible and cost-effective products, as well as the technological and application design expertise necessary to deliver effective solutions. Our comprehensive product offering enables us to meet a broad range of customer needs and provide a single source of flexible product offerings for semiconductor device and capital equipment manufacturers as they seek to consolidate their supplier relationships to a smaller select group. In addition, we believe manufacturers of semiconductor tools are looking to their suppliers for subsystems that provide more integrated functionality and seamlessly communicate with other equipment. We believe our offering of consumables and equipment, as well as our ability to integrate them, allows us to provide advanced subsystems.

Diversified Revenue Stream. We target a diversified revenue stream by balancing our sales of wafer transport and process carriers as well as component and subsystem equipment products with sales of our unit-driven and consumable products. Our unit-driven and consumable products provide a relatively more stable and recurring source of revenue in this cyclical industry. Our capital expense-driven products, which are generally dependent upon such factors as the construction and expansion of semiconductor manufacturing facilities and the retrofitting and renovation of existing semiconductor facilities, position us to benefit from increases in capital spending that are typically more subject to the volatility of industry cycles.

Technology Leadership. With the emergence of smaller and more powerful semiconductor devices, and the deployment of new materials and processes to produce them, we believe there is a need for greater materials management within the semiconductor fabrication process. We seek to extend our technology by developing advanced products that address more stringent requirements for greater purification, protection and transport of high value-added materials and for contamination control, fluid delivery and monitoring, and system integration. We have continuously improved our products as our customers' needs have evolved. For example, we have developed proprietary materials blends for use in our wafer handling product family that address the contamination concerns of advanced semiconductor processing below 100 nanometers; we have also developed a next-generation 300 mm front-opening unified pod utilizing those materials targeting the needs of 65 nm production; and we have expanded upon our proprietary two-stage dispense technology with integrated filtration for photoresist delivery, where the photoresist is filtered through one pump and precisely dispensed through a second pump at a different flow rate to reduce defects on wafers.

Strong Customer Base. We have established ongoing relationships with many leading original equipment manufacturers and materials suppliers in our key markets. These industry relationships have provided us with the opportunity for significant collaboration with our customers at the product design stage, which has facilitated our ability to introduce new products and applications that meet our customers' needs. For example, we work with our key customers at the pre-design and design stages to identify and respond to their requests for current and future generations of products. We target opportunities to offer new technologies in emerging applications, such as copper plating, chemical mechanical planarization, wet-dry cleaning systems and photolithography. We believe that our large customer base will continue to be an important source of new product development ideas.

Global Presence. We have established a global infrastructure of design, manufacturing, distribution, service and support facilities to meet the needs of our customers. In addition, we may expand our global infrastructure, either through acquisition or internal development, to accommodate increased demand, or we may consolidate inefficient operations to optimize our manufacturing and other capabilities. For example, we have established sales and service offices in China in anticipation of a growing semiconductor manufacturing base in that region. As semiconductor and other electronic device manufacturers have become increasingly global, they have required that suppliers offer comprehensive local repair and customer support services. In response to this trend we transferred customer support and logistics activities to local regions in an effort to enhance our global customer contact and awareness. We maintain our customer relationships through a combination of direct sales and support personnel and selected independent sales representatives and distributors in Asia, Europe and the Middle East.

Ancillary Markets. We plan to leverage our accumulated expertise in the semiconductor industry by developing products for applications that employ similar production processes that utilize materials integrity management, high-purity fluids and integrated dispense system technologies. Our products are used in manufacturing processes outside of the semiconductor industry, including the manufacturing of flat panel displays, fuel cell components, high-purity chemicals, photoresists, solar cells, gas lasers, optical and magnetic storage devices and fiberoptic cables. We plan to continue to identify and develop products that address materials management and advanced materials processing applications where fluid management plays a critical role. We believe that by utilizing our technology to provide manufacturing solutions across multiple industries, we are able to increase the total available market for our products and reduce, to an extent, our exposure to the cyclicality of any particular market.

Strategic Acquisitions, Partnerships and Related Transactions. We plan to pursue strategic acquisitions and business partnerships that enable us to address gaps in our product offerings, secure new customers, diversify into complementary product markets and broaden our technological capabilities and product offerings. Our acquisition of Poco Graphite in August of 2008 is an example of this strategy. Poco Graphite reinforces our presence in that industry by providing a group of new products critical to front-end semiconductor manufacturing based on a materials science that we did not previously have in our technology portfolio. Further, as the dynamics of the markets that we serve shift, we will reevaluate the ability of our existing businesses to provide value-added solutions to those markets in a manner that contributes to achieving our objectives; in the event that we conclude that a business is not able to do this, we expect to restructure or replace that business. Our decision to divest our cleaning equipment business in 2007 was made pursuant to this strategy. Finally, we are continuously evaluating opportunities for strategic alliances and joint development efforts with key customers and other industry leaders.

Our Products

Our product portfolio includes three major categories of products: **(i)** contamination control products, a wide range of products that purify, monitor and deliver critical liquids and gases to the semiconductor manufacturing process, **(ii)** microenvironment products, which preserve the integrity of wafers, reticles and electronic components at various stages of transport, processing and storage and **(iii)** specialty materials products, which include critical graphite components used in semiconductor equipment and low-temperature, plasma-enhanced chemical vapor deposition coating of critical components of semiconductor manufacturing equipment used in various stages of the manufacturing process. There follows a detailed description of each of these three categories of products:

Contamination Control Solutions

Liquid Filtration Products: Liquid processing occurs during multiple manufacturing steps including photolithography, deposition, planarization and surface etching and cleaning. The fluids that are used include various mixtures of acids, bases, solvents, slurries and photochemicals, which in turn are used over a broad range of operating conditions, including temperatures from 5 degrees Celsius up to 180 degrees Celsius. The design and performance of our liquid filtration and purification products are critical to the semiconductor manufacturing process because they directly affect the cost of ownership and manufacturing yield. Specially designed proprietary filters remove sub-micron sized particles and bubbles from the different fluid streams that are used in the manufacturing process. Some of our filters are constructed with ultra-high molecular weight polyethylene flat sheet membranes that offer improved bubble clearance and gel removal, either of which can cause defects in the wafers if not removed. Our low hold-up volume disposable filters, with flat sheet membranes, use our Connectology ™ technology to allow filter changes in less than a minute, significantly faster than conventional filters, to reduce the amount of expensive chemicals lost each time a filter is changed and to minimize operator exposure to hazardous solvents and vapors during changeout. We also offer a line of consumable PVA roller brush products to clean the wafer following the chemical mechanical planarization process. Our unique Planarcore ™ PVA roller brush is molded on the core to allow easy installation that reduces tool downtime and a dimensionally stable product that provides consistent wafer-to-wafer cleaning performance.

Components and Systems. Chemicals spend most of their time in contact with fluid storage and management distribution systems, so it is critical for fluid storage and handling components to resist these chemicals and avoid contributing contaminants to the fluid stream. We offer chemical delivery products that allow the consistent and safe delivery of sophisticated chemicals from the chemical manufacturer to the point-of-use in the semiconductor fab. Most of these products are made from perfluoroalkoxy or PFA, a fluoropolymer resin widely used in the semiconductor industry because of its high purity and inertness to chemicals. The innovative design and reliable performance of our products and systems under the most stringent of process conditions has made us a recognized leader in high-purity fluid transfer products and systems. Both semiconductor manufacturers and semiconductor OEMs use our chemical delivery products and systems. Our comprehensive product line provides our customers with a single-source provider for their chemical storage and management needs throughout the manufacturing process. Our chemical delivery products include valves, fittings, tubing, pipe, chemical containers and custom fabricated products for high-purity chemical applications.

Our proprietary photochemical filtration and dispense systems integrate our patented two-stage, filter device and valve control technologies. We believe that we offer the microelectronics industry the only dispense systems with integrated filtration capability and that our proprietary patented two-stage technology has a significant advantage over conventional single-stage technology. Our two-stage technology permits the filtering and dispense functions to operate independently so that filtering and dispensing of photochemicals can occur at different rates, reducing the differential pressure across the filter, conserving expensive photochemicals and resulting in reduced defects in wafers. As described above, we offer a line of proprietary filters specifically designed to efficiently connect with these systems. Our patented digital valve control technology improves chemical uniformity on wafers and improves ease of optimized system operation. In addition, our integrated high-precision liquid dispense systems enable uniform application of photoresists for the spin-coating process, where uniformity is measured in units of Angstroms, a tiny fraction of the thickness of a human hair.

We offer a wide variety of measurement and control products for high-purity and corrosive applications. For electronic measurement and control of liquids, we provide a complete line of pressure and flow measurement and control products as well as all-plastic capacitance sensors for leak detection, valve position, chemical level and other measurements. We also offer a complete line of sight tube-style flowmeters and mechanical gauge pressure measurement products.

Gas Filtration Products. Our Wafergard®, ChamberGard™ and Waferpure® particle and molecular filtration products purify the gas entering the process chamber in order to eliminate system and wafer problems due to particulate, atmospheric and chemical contaminants. These filters are able to retain all particles 0.003 microns and larger. Our metal filters, such as stainless steel and nickel filters, reduce outgassing and improve corrosion resistance. Our Waferpure ® and Aeronex Gatekeeper® purifiers chemically react with and absorb volatile contaminants, such as oxygen and water, to prevent contamination, and our ChamberGard ™ vent diffusers reduce particle contamination and processing cycle times. We offer a wide variety of gas purification products to meet the stringent requirements of semiconductor processing. Our Aeronex Gas Purification Systems contain dual-resin beds, providing a continuous supply of purified gas without process interruption. These gas purification systems are capable of handling higher flow rates and longer duty cycles than cartridge purifiers. Our Extraction products include filter housings and hybrid media chemical air filters which purify air entering exposure tool and process tool enclosures and remove airborne molecular contaminants.

MICROENVIRONMENT PRODUCTS

Our microenvironment products fall into three sub-categories, wafer handling products, wafer shipping products and data storage products.

Wafer Handling Products. We believe that we are a market leader in wafer handling products. We offer a wide variety of products that hold and position wafers as they travel between each piece of equipment used in the automated manufacturing process. These specialized carriers provide precise wafer positioning, wafer protection and highly reliable and predictable cassette interfaces in automated fabs. Semiconductor manufacturers rely on our products to improve yields by protecting wafers from abrasion, degradation and contamination during the manufacturing process. We provide standard and customized products that meet the full spectrum of industry standards and customers' wafer handling needs including FOUPs, wafer transport and process carriers, SMIF pods and work-in-process boxes. To meet our customers' varying wafer processing and transport needs, we offer wafer carriers in a variety of materials and in sizes ranging from 100 mm through 300 mm.

Wafer Shipping Products. We believe that we are a leading provider of critical shipping products that preserve the integrity of raw silicon wafers as they are transported from wafer manufacturers to semiconductor manufacturers. We lead the market with our extensive, high-volume line of Ultrapak ® and Crystalpak ® products which are supplied to wafer manufacturers in a full range of sizes covering 100, 125, 150 and 200 mm wafers. We also offer a full-pitch, front-opening shipping box, or FOSB, for the transportation and automated interface of 300 mm wafers. We offer a complete shipping system, including both wafer shipping containers as well as secondary packaging that provides another level of protection for wafers.

We believe we are the only global provider currently offering outsourcing programs for wafer and device transportation and protection for both wafer manufacturing and wafer handling products. Our Wafercare ® and DeviceCare SM services include product cleaning, certified re-use services for shipping products, on-site and off-site product maintenance and optimization, and end-of-life recycling for our wafer, device and disk-handling products. Re-use services can be customized depending on the customers needs to provide product cleaning, logistics, recovery, certification and supply solutions for our products.

Data Storage Products. As is the case with the semiconductor industry, the data storage market continues to face new challenges and deploy new technologies at an accelerating rate. We provide products and solutions to manage two critical sectors of this industry: magnetic disks and the read/write heads used to read and write today's higher density disks. Because both of these hard disk drive components are instrumental in the transition to more powerful storage solutions, we offer products that carefully protect and maintain the integrity of these components during their processing, storage and shipment. Our product offerings for magnetic hard disk drives include process carriers, boxes, packages, tools and shippers for aluminum and other disk substrates. Our optical hard disk drive products include stamper cases, process carriers, boxes and glass master carriers. Our read/write head products include transport trays, carriers, handles, boxes, individual disk substrate packages and accessories.

Rapidly changing packaging strategies for semiconductor applications are creating new materials management challenges for back-end manufacturers. We offer chip and matrix trays as well as carriers for bare die handling and integrated circuits. Our materials management products are compatible with industry standards and available in a wide range of sizes with various feature sets. Our standard trays offer dimensional stability and permanent electrostatic discharge protection. Our trays also offer a number of features including custom designs to minimize die movement and contact; shelves and pedestals to minimize direct die contact, special pocket features to handle various surface finishes to eliminate die sticking; and other features for automated or manual die placement and removal. In addition, we support our product line with a full range of accessories to address specific needs such as static control, cleaning, chip washing and other related materials management requirements. To better address this market, we have established ictray.com, a website which allows new and existing customers to select from our full range of standard and custom integrated circuit trays.

SPECIALTY MATERIALS PRODUCTS

Our specialty materials products fall into three sub-categories, Poco Graphite Products, Specialty Coating Products and Polymer Composites. These products all provide high-value materials science enabling solutions in the form of materials, components or services that provide corrosion, high temperature, wear and chemical resistance, electrical and thermal conductivity and biocompatibility to a wide range of customers both within the semiconductor industry and in adjacent and unrelated industries.

Poco Graphite Products. These products are made from specialized graphite or silicon carbide. Our Poco Graphite products sold to the semiconductor industry are used for critical components for semiconductor manufacturing equipment at various stages of the semiconductor manufacturing process including chemical vapor deposition, where our expendable graphite chamber liners and shower heads are critical components used in the CVD chamber; wet etch and clean, where our consumable graphite components deliver, baffle and confine the process gases during the etch process; and ion implant, where our consumable graphite components are critical elements of ion implantation equipment. In addition, our Poco Graphite high-quality graphite is used as precision consumable electrodes for electrical discharge machining, a non-contact precision thermoelectric machining process for hard and exotic metals and other materials. Poco Graphite also manufactures a number of graphite hot glass contact materials for use in the manufacture of glass containers. Finally, Poco Graphite manufactures a number of graphite consumable products for various industrial applications including bushings and thrust washers for aerospace applications, substrates for industrial print heads, components for scan heads in industrial optical applications, cathodes for fuel cells and heart valves for human implantation.

Specialty Coatings. We offer a variety of high-performance specialty coatings for critical components used in semiconductor and other high-technology manufacturing operations. These components, often in highly complex geometries, are coated by means of a low-temperature, plasma-assisted chemical vapor deposition process to provide corrosion and abrasion resistance and desired conductivity and hydrophobicity properties. We also provide complex assemblies such as electrostatic chucks for semiconductor manufacturing equipment, where our coatings prevent contamination of the process. Our coatings are also used in other high-technology applications such as aerospace optical components.

Polymer Composite Products. We are pursuing a number of advanced materials initiatives to produce highly engineered, single wall and multi-wall carbon nanotube polymer composite materials that can be used in various products in the semiconductor and other high technology markets.

Worldwide Applications Development and Field Support Capabilities

We provide strong technical support to our customers through local service groups and engineers consisting of field applications engineers, technical service groups, applications development groups and training capabilities. Our field applications engineers, located in the United States and approximately ten other countries, work directly with our customers on product qualification and process improvements in their facilities. In addition, in response to customer needs for local technical service and fast turnaround time, we maintain regional applications laboratories. Our applications laboratories maintain process equipment that simulate customers' applications and industry test standards and provide product evaluation, technical support and complaint resolution for our customers.

OUR CUSTOMERS AND MARKETS

Our major semiconductor customer groups include integrated circuit device manufacturers, original equipment manufacturers that provide equipment to integrated circuit device manufacturers, gas and chemical manufacturing companies and manufacturers of high-precision electronics. Our major non-semiconductor customers for our Poco Graphite products include electrical discharge machining customers, glass container manufacturers, aerospace manufacturers and manufacturers of biomedical implantation devices.

Our most significant customers based on sales in fiscal 2008 include industry leaders, such as ASML, MEMC, Samsung America Inc., ST Micro, Siltronic AG, SUMCO Oregon Corp., Taiwan Semiconductor Manufacturing Co. Ltd., Tokyo Electron and UMC Group. We also sell our products to flat panel display original equipment manufacturers, materials suppliers and end users. The major manufacturers for flat panel displays and flat panel display equipment are concentrated in Japan, Korea and other parts of Asia.

In 2008, 2007 and 2006, net sales to our top ten customers accounted for approximately 26%, 28% and 27%, respectively, of our net sales. During those same periods no single customer accounted for more than 10% of our net sales and international net sales represented approximately 71%, 74% and 71%, respectively, of our net sales. Over 3,600 customers purchased products from us during 2008.

We may enter into supply agreements with our customers to govern the conduct of our business with our customers, including the manufacture of our products. These agreements generally have a term of one to three years, but do not contain any long-term purchase commitments. Instead, we work closely with our customers to develop non-binding forecasts of the future volume of orders. However, customers may cancel their orders, change production quantities from forecasted volumes or delay production for a number of reasons beyond our control.

Sales and Marketing

We sell our products worldwide, primarily through our direct sales force located in offices in all major semiconductor markets, as well as through independent distributors elsewhere. As of December 31, 2008, our sales and marketing force consisted of approximately 515 employees worldwide. Our direct sales force is supplemented by independent sales representatives and agents.

Our semiconductor marketing efforts focus on our "push/pull" marketing strategy in order to maximize our selling opportunities. We work with original equipment manufacturers to persuade them to design tools that require our products and we create end-user "pull" demand by persuading semiconductor manufacturers to specify our products. Our industry relationships have provided us with the opportunity for significant collaboration with our customers at the product design stage, which has facilitated our ability to introduce new products and applications that meet our customers' needs. In addition, we are constantly identifying for our customers the variety of analytical, purification and process control challenges that may be addressed by our products. Further, we adapt our products and technologies to resolve process control issues identified by our customers. Our sales representatives provide our customers with worldwide support and information about our products.

We believe that our technical support services are important to our marketing efforts. These services include assisting in defining a customer's needs, evaluating alternative products, designing a specific system to perform the desired separation, training users and assisting customers in compliance with relevant government regulations. In addition, we maintain a network of service centers located in the United States and in key international markets to support our products.

Competition

The market for our products is highly competitive. While price is an important factor, we compete primarily on the basis of the following factors:

- historical customer relationships;
- technical expertise;
- product quality and performance;
- total cost of ownership;
- customer service and support;
- breadth of product line;
- breadth of geographic presence;
- advanced manufacturing capabilities; and
- after-sales service.

We believe that we compete favorably with respect to all of the factors listed above, but we cannot assure you that we will continue to do so. We believe that our key competitive strengths include our broad product line, the low total cost of ownership of our products, our ability to provide our customers with quick order fulfillment and our technical expertise. However, our competitive position varies depending on the market segment and specific product areas within these segments. While we have longstanding relationships with a number of semiconductor and other electronic device manufacturers, we also face significant competition from companies that have longstanding relationships with other semiconductor and electronic device manufacturers and, as a result, have been able to have their products specified by those customers for use in manufacturers' fabrication facilities. In the markets for our consumable products, we believe that our differentiated membrane and materials integrity management technologies, strong supply chain capabilities that allow us to provide our customers with quick order fulfillment, and technical expertise, which enables us to develop membranes to meet specific customer needs and assist our customers in improving the functionality of our membranes for particular applications, allow us to compete favorably. In these markets our competitors compete against us on the basis of price, as well as alternative membrane technology having different functionality, manufacturing capabilities and breadth of geographic presence.

The market for our products is highly fragmented, and we compete with a number of different companies. Our liquid filtration- control products compete with product offerings from a wide range of companies including both large companies such as Pall Corporation as well as small Asian filter manufacturers. Our contamination control components and systems also face worldwide competition from companies such as Saint-Gobain, Parker, Gemu, Donaldson and Iwaki Co., Ltd. Our gas filtration products compete with companies such as SAES Puregas and Mott Metallurgical Corporation. Our microenvironment product lines face competition largely on a product-by-product basis. We face competition from companies such as Miraial (formerly Kakizaki), Dainichi and Shin-Etsu Polymer and from regional suppliers such as e.PAK Resources Pte. Ltd. These companies compete with us primarily in 200 mm and 300 mm applications. Our data storage and finished electronic components products compete with companies such as ITW/Camtex, Peak International and 3M and from regional suppliers. Our Poco Graphite products compete with products manufactured by companies such as Carbone Lorraine (France), Tokai Carbon (Japan) and Toyo Tanso (Japan). Some of our competitors are larger and have greater resources than we do. In some cases, our competitors are smaller than us, but well-established in specific product niches. We believe that none of our competitors competes with us across all of our product offerings and that, within the markets that we serve, we offer a broader line of products, make use of a wider range of process control technologies and address a broader range of applications than any single competitor.

Engineering, Research and Development

Our aggregate engineering, research and development expenses in 2008, 2007 and 2006 were $40.1 million, $39.7 million and $38.1 million, respectively. As of December 31, 2008, we had approximately 247 employees in engineering, research and development. In addition, we have followed a practice of supplementing our internal research and development efforts by licensing technology from unaffiliated third parties and/or acquiring distribution rights with respect thereto when we believe it is in our long-term interests to do so.

To meet the global needs of our customers, we have engineering, research and development capabilities in California, Minnesota, Massachusetts, Texas, Japan and Malaysia. Our engineering, research and development efforts are directed toward developing and improving our technology platforms for semiconductor and advanced processing applications and identifying and developing products for new applications for which fluid management plays a critical role.

We use sophisticated methodologies to research, develop and characterize our materials and products. Our materials technology laboratory is equipped to analyze the physical, rheological, thermal, chemical and compositional nature of the polymers we use. Our materials lab includes standard and advanced polymer analysis equipment such as inductively coupled plasma mass spectrometry (ICP/MS), inductively coupled plasma atomic emission spectrometry (ICP/AES), fourier transform infrared spectroscopy (FTIR) and automated thermal desorption gas chromatography/mass spectrometry (ATD-GC/MS). This advanced analysis equipment allows us to detect contaminants in materials that could harm the semiconductor manufacturing process to levels as low as parts per billion, and in many cases parts per trillion.

Our capabilities to test and characterize our materials and products are focused on continuously reducing risks and threats to the integrity of the critical materials that our customers use in their manufacturing processes. We expect that technology and product engineering, research and development will continue to represent an important element in our ability to develop and characterize our materials and products.

Key elements of our engineering, research and development expenditures over the past three years have included the development of new product platforms to meet the manufacturing needs for 90, 65, 45 and 32 nanometer semiconductor devices. Driven by the proliferation of new materials and chemicals in the manufacturing processes and increased needs for tighter process control for 300 mm wafers, investments were made for new contamination control products in the area of copper interconnects, deep ultra-violet (DUV) photolithography, and chemical and gas management technologies for advanced wafer cleans, deposition and etch equipment. Additional investments were made in the area of advanced process control, monitoring and diagnostics capabilities for future generations of semiconductor manufacturing processes. Our employees also work closely with our customers' development personnel. These relationships help us identify and define future technical needs on which to focus our engineering, research and development efforts. In addition, we participate in Semiconductor Equipment and Materials International (SEMI), a consortium of semiconductor equipment suppliers. We also support research at academic and other institutions targeted at advances in materials science and semiconductor process development.

MANUFACTURING

Our customers rely on our products to assure the integrity of the critical materials used in their manufacturing processes by providing dimensional precision and stability, cleanliness and consistent performance. Our ability to meet our customers' expectations, combined with our substantial investments in worldwide manufacturing capacity, position us to respond to the increasing materials integrity management demands of the microelectronics industry and other industries that require similar levels of materials integrity.

To meet our customer needs worldwide, we have established an extensive global manufacturing network with manufacturing facilities in the United States, Japan and Malaysia. Because we work in an industry where contamination control is paramount, we maintain Class 100 to Class 10,000 cleanrooms for manufacturing and assembly. We believe that our worldwide manufacturing operations and our advanced manufacturing capabilities are important competitive advantages. Our advanced manufacturing capabilities include:

- ***Injection Molding.*** Our manufacturing expertise is based on our long experience with injection molding. Using molds produced from computer-aided processes, our manufacturing technicians utilize specialized injection molding equipment and operate within specific protocols and procedures established to consistently produce precision products.
- ***Extrusion.*** Extrusion is accomplished through the use of heat and force from a screw to melt solid polymer pellets in a cylinder and then forcing the resulting melt through a die to produce tubing and pipe. We have established contamination-free on-line laser marking and measurement techniques to properly identify products during the extrusion process and ensure consistency in overall dimension and wall thickness. In addition, we use extrusion technology to extrude a polymer mix into flat sheet and hollow fiber membranes.
- ***Blow Molding.*** Blow molding consists of the use of heat and force from a screw to melt solid polymer pellets in a cylinder and then forcing the resulting melt through a die to create a hollow tube. The molten tube is clamped in a mold and expanded with pressurized gas until it takes the shape of the mold. We utilize advanced three-layer processing to manufacture 55 gallon drums, leading to cost savings while simultaneously assuring durability, strength and purity.
- ***Rotational Molding.*** Rotational molding is accomplished by the placing of a solid polymer powder in a mold, placing the mold in an oven and rotating the mold on two axes so that the melting polymer coats the entire surface of the mold. This forms a part in the shape of the mold upon cooling. We use rotational molding in manufacturing containers up to 5,000 liters. Our rotational molding expertise has provided rapid market access for our current fluoropolymer sheet lining manufacturing business.
- ***Compression Molding.*** In compression molding, thermoset polymers are processed. Today, we use this manufacturing process primarily for manufacturing bipolar plates and end-plates for the fuel cell market. We use the same expertise as in injection molding to assure a consistently produced precision product.

- ***Membrane Casting.*** We cast membrane by extruding a polymer into flat sheet or hollow fiber format that is passed through a chamber with controlled atmospheric conditions to control the development of voids or pores in the membrane. Once cast, the membrane is subjected to solvent extraction and annealing steps. The various properties of the membranes that we offer are developed during subsequent process steps.
- ***Cartridge Manufacturing.*** We fabricate the membrane we manufacture as well as membranes manufactured by others into finished filtration cartridges in a variety of configurations. The fabrication process involves membrane processing into pleated and other configurations around a central core and enclosing it in a framework of end caps and protective screening for use in fabricated cartridge housings. We also manufacture filter cartridges that are integrated into their own housings and incorporate our patented Connectology™ quick connect technology.
- ***Graphite Synthesis.*** We have a differentiated proprietary graphite synthesis process that produces premium graphite with superior strength, uniformity and performance. This synthesis process consists of blending and forming petroleum cokes into "green" billets, baking over an extended period between 800 to 1,100°C, followed by a graphitization process at temperatures between 2,000 to 3,000°C. The graphite produced by this process is sold in bulk, machined into specific components or converted into silicon carbide through controlled exposure to silicon monoxide gas.
- ***Machining.*** Machining consists of the use of computer-controlled equipment to create shapes, such as valve bodies and other specific components, out of solid polymer blocks or rods, premium graphite and silicon carbide. Our computerized machining capabilities enable speed and repeatability in volume manufacturing of our machined products, particularly products utilized in chemical delivery applications.
- ***Assembly.*** We have established protocols, flow charts, work instructions and quality assurance procedures to assure proper assembly of component parts. The extensive use of robotics throughout our facilities reduces labor costs, diminishes the possibility of contamination and assures process consistency.
- ***Tool Making.*** We employ approximately 60 tool development and tool-making staff at locations in the United States and Malaysia. Our toolmakers produce the majority of the tools we use throughout the world.

We have made significant investments in systems and equipment to create innovative products and tool designs. Our computer-aided design (CAD) equipment allows us to develop three-dimensional electronic models of desired customer products to guide design and tool-making activities. Our CAD equipment also aids in the rapid prototyping of products.

We also use computer-automated engineering in the context of mold flow analysis. Beginning with a three-dimensional CAD model, mold flow analysis is used to visualize and simulate how our molds will fill. The mold flow analysis techniques cut the time needed to bring a new product to market because of the reduced need for sampling and development. Also, our CAD equipment can create a virtual part with specific geometries, which drives subsequent tool design, tool manufacturing, mold flow analysis and performance simulation.

In conjunction with our three-dimensional product designs, we use finite element analysis software to simulate the application of a variety of forces or pressures to observe what will happen during product use. This analysis helps us anticipate forces that affect our products under various conditions. The program also assists our product designers by measuring anticipated stresses against known material strengths and establishing proper margins of safety.

Patents and Other Intellectual Property Rights

We rely on a combination of patent, copyright, trademark and trade secret laws and license agreements to establish and protect our proprietary rights. As of February 1, 2009 our patent portfolio included 280 current U.S. patents, 508 current foreign patents, including counterparts to U.S. filings, 75 pending U.S. patent applications, 19 pending filings under the Patent Cooperation Treaty not yet nationalized and 543 pending foreign patent applications. While we believe that patents may be important for aspects of our business, we believe that our success also depends more upon close customer contact, innovation, technological expertise, responsiveness and worldwide distribution. Additionally, while our patented technology may delay or deter a competitor in offering a competing product, we do not believe that our patent portfolio functions as a barrier to entry for any of our competitors. In addition, while we license and will continue to license technology used in the manufacture and distribution of products from third parties, except as described below, these licenses are not currently related to any of our core product technology. In connection with the separation of Mykrolis from Millipore Corporation, Mykrolis was granted licenses to certain Millipore technology. Our use of Millipore's technology is governed by the agreements governing the separation of Mykrolis from Millipore, which prohibit our use of Millipore's technology in fields of use outside the microelectronics industry. In general, where technology is used both by Millipore in the manufacture of its products and by us in the manufacture of our products, Millipore retained ownership of the technology and granted us a license to use the technology, limited to fields of use in the microelectronics industry. These restrictions could limit our ability to expand our business into markets outside the microelectronics industry, which could limit our growth.

We require each of our employees, including our executive officers, to enter into standard agreements pursuant to which the employee agrees to keep confidential all of our proprietary information and to assign to us all inventions made while employed by us.

The patent position of any manufacturer, including us, is subject to uncertainties and may involve complex legal and factual issues. Litigation is currently necessary and will likely be necessary in the future to enforce our patents and other intellectual property rights or to defend ourselves against claims of infringement or invalidity. The steps that we have taken in seeking patents and other intellectual property protections may prove inadequate to deter misappropriation of our technology and information. In addition, our competitors may independently develop technologies that are substantially equivalent or superior to our technology.

Governmental Regulation

Our operations are subject to federal, state and local regulatory requirements relating to environmental, waste management and health and safety matters, including measures relating to the release, use, storage, treatment, transportation, discharge, disposal and remediation of contaminants, hazardous substances and wastes, as well as practices and procedures applicable to the construction and operation of our plants. There can be no assurance that we will not incur material costs and liabilities or that our past or future operations will not result in exposure to injury or claims of injury by employees or the public. Although some risk of costs and liabilities related to these matters is inherent in our business, as with many similar businesses, we believe that our business is operated in substantial compliance with applicable regulations. However, new, modified or more stringent requirements or enforcement policies could be adopted, which could adversely affect us. While we expect that capital expenditures will be necessary to assure that any new manufacturing facility is in compliance with environmental and health and safety laws, we do not expect these expenditures to be material. Otherwise, we are not presently aware of any facts or circumstances that would cause us to incur significant liabilities in the future related to environmental, health and safety law compliance.

Employees

As of February 1, 2009, we had approximately 2,829 full-time employees, including approximately 247 in engineering, research and development and approximately 515 in sales and marketing, as well as approximately 396 temporary employees. Given the variability of business cycles in the semiconductor industry and the quick response time required by our customers, it is critical that we be able to quickly adjust the size of our production staff to maximize efficiency. Therefore, we use skilled temporary labor as required.

None of our employees are represented by a labor union or covered by a collective bargaining agreement other than statutorily mandated programs in European countries.

INFORMATION ABOUT OUR OPERATING SEGMENT

For 2008, 2007 and 2006, the Company operated in one reportable business segment that develops, manufactures and sells consumables and capital equipment products to semiconductor manufacturing companies and other companies using similar manufacturing processes, as well as OEM suppliers to those companies. In 2008, 2007 and 2006 approximately 71%, 74% and 71%, respectively, of our net sales were made to customers outside North America. Industry and geographic segment information is discussed in Note 21 to the Entegris, Inc. Consolidated Financial Statements (the “Financial Statements”) included in response to Item 8 below, which Note is incorporated herein by reference.

OTHER INFORMATION

On July 27, 2005, our Board of Directors adopted a shareholder rights plan (the “Rights Plan”) pursuant to which Entegris declared a dividend on August 8, 2005 to its shareholders of record on that date of one preferred share purchase right (a “Right”) for each share of Entegris common stock owned on August 8, 2005. Each Right entitles the holder to purchase one-hundredth of a share of a series of preferred stock at an exercise price of $50, subject to adjustment as provided in the Rights Plan. The Rights Plan is designed to protect Entegris’ shareholders from attempts by others to acquire Entegris on terms or by using tactics that could deny all shareholders the opportunity to realize the full value of their investment. The Rights are attached to the shares of our common stock until certain triggering events specified in the Rights Agreement occur, including, unless approved by our board of directors, an acquisition by a person or group of specified levels of beneficial ownership of our common stock or a tender offer for our common stock. Upon the occurrence of any of these triggering events, the Rights authorize the holders to purchase at the then-current exercise price for the Rights that number of shares of our common stock having a market value equal to twice the exercise price. The Rights are redeemable by us for $0.01 and will expire on August 8, 2015. One of the events that would trigger the Rights is the acquisition, or commencement of a tender offer, by a person (an Acquiring Person, as defined in the shareholder rights plan), other than Entegris or any of our subsidiaries or employee benefit plans, of 15% or more of the outstanding shares of our common stock. An Acquiring Person may not exercise a Right.

Entegris’ products are made from a wide variety of raw materials that are generally available in quantity from alternate sources of supply. However, certain materials included in the Company’s products, such as polymer resins, petroleum coke and certain filtration membranes, are obtained from a single source or a limited group of suppliers. Although the Company seeks to reduce dependence on these sole and limited source suppliers, the partial or complete loss of these sources could interrupt our manufacturing operations and result in an adverse effect on the Company’s results of operations. Furthermore, a significant increase in the price of one or more of these components could also adversely affect the Company’s results of operations.

OUR HISTORY

Effective August 6, 2005 Entegris, Inc., a Minnesota corporation, and Mykrolis Corporation, a Delaware corporation, completed a strategic merger of equals transaction, pursuant to which they were each merged into the Company to carry on the combined businesses. We were incorporated in Delaware in March 2005 under the name Eagle DE, Inc. as a wholly owned subsidiary of Entegris Minnesota. Effective August 6, 2005 Entegris Minnesota merged into us in a reincorporation merger of which we were the surviving corporation. Immediately following that merger, Mykrolis merged into us and our name was changed to Entegris, Inc. Our stock is traded on the NASDAQ National Market System under the symbol “ENTG”.

Entegris Minnesota was incorporated in June 1999 to effect the business combination of Fluoroware, Inc., which began operating in 1966, and EMPAK, Inc., which began operating in 1980. On July 10, 2000 Entegris Minnesota completed an initial public offering of approximately 19% of the total shares of the Company’s common stock outstanding.

Mykrolis was organized as a Delaware corporation on October 16, 2000 under the name Millipore MicroElectronics, Inc. in connection with the spin-off by Millipore Corporation of its microelectronics business unit. On March 31, 2001, Millipore effected the separation of the Mykrolis business from Millipore's business by transferring to Mykrolis substantially all of the assets and liabilities associated with its microelectronics business. On August 9, 2001 Mykrolis completed an initial public offering of approximately 18% of the total shares of the Company's common stock outstanding. On February 27, 2002, Millipore completed the spin-off of Mykrolis by distributing to its stockholders the 82% of the Mykrolis common stock that it held following the Mykrolis initial public offering.

EXECUTIVE OFFICERS

The following is a list, as of December 31, 2008, of our Executive Officers. All of the Executive Officers listed below were elected to serve until the first Directors Meeting following the 2009 Annual Stockholders Meeting.

Name	Age	Office	First Elected To Office*
CORPORATE OFFICERS			
Gideon Argov	52	*President & Chief Executive Officer*	2004
Gregory B. Graves	48	*Executive Vice President, Chief Financial Officer & Treasurer*	2002
Bertrand Loy	43	*Executive Vice President & Chief Operating Officer*	2001
Peter W. Walcott	62	*Senior Vice President, Secretary & General Counsel*	2001
John J. Murphy	56	*Senior Vice President Human Resources*	2005
John Goodman	48	*Senior Vice President Chief Technology & Innovation Officer*	2005

* With either the Company or a predecessor company

Gideon Argov has been our President and Chief Executive Officer and a director since the effectiveness of our merger with Mykrolis. He served as the Chief Executive Officer and a director of Mykrolis since November 2004. Prior to joining Mykrolis, Mr. Argov was a Special Limited Partner at Parthenon Capital, a Boston-based private equity partnership, since 2001. He served as Chairman, Chief Executive Officer and President of Kollmorgen Corporation from 1991 to 2000. From 1988 to 1991 he served as Chief Executive Officer of High Voltage Engineering Corporation. Prior to 1988, he led consulting engagement teams at Bain and Company. He is a director of Interline Brands, Inc., X-Rite Incorporated and Fundtech Corporation.

Gregory B. Graves has served as our Executive Vice President and Chief Financial Officer since July 2008. Prior to that he served as Senior Vice President and Chief Financial Officer since April 2007. Prior to April 2007, he served as Senior Vice President, Strategic Planning & Business Development since the effectiveness of the merger with Mykrolis. Mr. Graves served as the Chief Business Development Officer of Entegris Minnesota since September 2002 and from September 2003 until August 2004 he also served as Senior Vice President of Finance. Prior to joining Entegris Minnesota, Mr. Graves held positions in investment banking and corporate development, including at U.S. Bancorp Piper Jaffray from June 1998 to August 2002 and at Dain Rauscher from October 1996 to May 1998.

Bertrand Loy served as our Executive Vice President and Chief Administrative Officer from the effectiveness of the merger with Mykrolis until July 2008, when he assumed his current position as Chief Operating Officer. He served as the Vice President and Chief Financial Officer of Mykrolis from January 2001 until the Merger. Prior to that, Mr. Loy served as the Chief Information Officer of Millipore from April 1999 until December 2000. From 1995 until 1999, he served as the Division Controller for Millipore's Laboratory Water Division. From 1989 until 1995, Mr. Loy served Sandoz Pharmaceuticals (now Novartis) in a variety of financial, audit and controller positions located in Europe, Central America and Japan.

Peter W. Walcott has been our Senior Vice President, Secretary and General Counsel since the effectiveness of the merger with Mykrolis. He served as the Vice President, Secretary and General Counsel of Mykrolis since October 2000. Mr. Walcott served as the Assistant General Counsel of Millipore from 1981 until March 2001.

John J. Murphy joined us as our Senior Vice President, Human Resources in October of 2005. He served as the Senior Vice President Human Resources of HNTB, an engineering and architectural services firm from February 2004 until October 2005 and as Corporate Vice President, Human Resources of Cadence Design Systems, Inc. from May of 2000 through October 2003. Prior to that Mr. Murphy held senior human resources positions with L.M. Ericsson Telephone Company and with General Electric Company.

John Goodman has been our Senior Vice President, Chief Technology & Innovation Officer since the effectiveness of the merger with Mykrolis. He served as the Managing Director of the fuel cell market sector of Entegris Minnesota since January 2005 and prior to that as president of the fuel cell market sector since June 2002. Mr. Goodman served as Executive Vice President and Chief Technology Officer of Entegris Minnesota from 1999 to 2002. Prior to that time, Mr. Goodman held a variety of positions with Fluoroware (a predecessor to Entegris Minnesota) since 1982.

CORPORATE GOVERNANCE

At their first meeting following the Merger, on August 10, 2005, our Board of Directors adopted a code of business ethics, The Entegris Code of Business Ethics, applicable to all of our executives, directors and employees as well as a set of corporate governance guidelines. The Entegris Code of Business Ethics, the Governance Guidelines and the charters for our Audit & Finance Committee, Governance & Nominating Committee and our Management Development & Compensation Committee all appear on our website at http://www.Entegris.com under "Investor Relations—Governance". The Governance Guidelines and committee charters are also available in print to any shareholder that requests a copy. Copies may be obtained by contacting Peter W. Walcott, our Senior Vice President, Secretary and General Counsel through our corporate headquarters.

Item 1A. Risk Factors.

Risks Relating to our Business and Industry

The current industry downturn is negatively impacting our business with significant revenue declines in the fourth quarter of 2008 and a worsening of those declines through the first seven weeks of 2009.

We had a net loss of $517.0 million in fiscal 2008, including a fourth quarter net loss of $131.7 million, which included after-tax goodwill impairment charges of $454.6 million and $89.4 million, respectively. Revenues declined sharply in the fourth quarter of 2008 to $112.7 million down from $145.8 million in the third quarter 2008 and from $161.3 million in the fourth quarter of 2007. The revenue run rate for the first seven weeks of 2009 is down significantly from what we experienced in the fourth quarter of 2008. As a result of this poor business environment, we projected that we would violate the debt covenants in our $230 revolving credit facility in the first half of 2009. Therefore, management, working with our banks, undertook amending our $230 million revolving credit facility. On March 2, 2009 we entered into a $150 million amended revolving credit facility. The $150 million amended revolving credit facility allows us to borrow up to $139 million based on our current borrowing base with an additional $11 million available at the discretion of the majority of our banks. As of December 31, 2008 and February 27, 2009, we have $139 million outstanding. The amended revolving credit facility requires us to maintain compliance with new debt covenants and to pay higher rates of interest (see Note 23 to our consolidated financial statements).

While management has taken significant action to date including the announcement of the closure of our largest Chaska facility that will ultimately result in the layoff of approximately 200 employees and the reduction of exempt employees' wages by an aggregate annual amount in excess of $5.0 million, further actions will be necessary if revenue levels do not improve in the very near term. At current 2009 revenue levels, management will be required to act upon its identified contingency plan to significantly reduce operating expenses further in order to avoid violating the covenants in our $150 million amended revolving credit facility. These reductions, if necessary, would include such items as furloughs, permanent headcount reductions, office closures, further reductions in discretionary spending, elimination of certain new product development initiatives and other cost reduction measures. Certain of the contingency plan actions may likely need to be implemented late in the first quarter to realize the financial benefits necessary to maintain compliance with our debt covenants. While there can be no assurances that these actions will be sufficient, such contingency plans are within management's control. Further, management has the intent and ability to execute as necessary and believes such benefits are achievable. However, there can be no assurance that these additional operating expense reductions will not have a lasting negative impact on our long term business prospects. Additionally, these actions could have direct or indirect negative effects on certain other risk factors below.

The semiconductor industry has historically been highly cyclical, and industry downturns reduce revenue and profits.

Our business depends on the purchasing patterns of semiconductor manufacturers, which, in turn, depend on the current and anticipated demand for semiconductors and products utilizing semiconductors. The semiconductor industry has historically been highly cyclical with periodic downturns, which often have resulted in decreased expenditures by semiconductor manufacturers. For example, we experienced considerably lower revenues during the industry's downturn in the 2001-2003 period. From 2003 to the middle of 2008, this cyclicality had moderated. However, it should be noted that even moderate cyclicality can cause our operating results to fluctuate significantly from one period to the next. Currently, we are experiencing significant revenue deterioration due to a severe downturn in both the capital and unit-driven segments of the semiconductor industry that began during the second half of 2008. We are unable to predict the ultimate duration and severity of this downturn or the timing of a recovery, if any, for the semiconductor industry.

Furthermore, in periods of reduced demand, we must continue to maintain a satisfactory level of engineering, research and development expenditures and continue to invest in our infrastructure. At the same time, we have to manage our operations to be able to respond to significant increases in demand. In addition, because we typically do not have significant backlog, changes in order patterns have a more immediate impact on our revenues. We expect the semiconductor industry to continue to be cyclical. During downturns our revenue is reduced, and there is likely to be an increase in pricing pressure, affecting both gross margin and net income. Such fluctuations in our results could cause our share price to decline. We believe that period-to-period comparisons of our results of operations may not be meaningful, and you should not rely upon them as indicators of our future performance.

The semiconductor industry is subject to rapid demand shifts, which are difficult to predict. As a result, our inability to meet demand in response to these rapid shifts may cause a reduction in our market share.

Our ability to increase sales of our products, particularly our capital equipment products, depends in part upon our ability to ramp up the use of our manufacturing capacity for such products in a timely manner and to mobilize our supply chain. In order to meet the demands of our customers, we may be required to ramp up our manufacturing capacity in as little as a few months. If we are unable to expand our manufacturing capacity on a timely basis or manage such expansion effectively, our customers could seek such products from other suppliers, and our market share could be reduced. Because demand shifts in the semiconductor industry are rapid and difficult to foresee, we may not be able to increase capacity quickly enough to respond to such an increase in demand.

Our annual and quarterly operating results are subject to fluctuations as a result of rapid demand shifts and our insignificant level of backlog, and if we fail to meet the expectations of securities analysts or investors, the market price of our securities may decrease significantly.

Our sales and profitability can vary significantly from quarter to quarter and year to year. Because our expense levels are relatively fixed in the short-term, an unanticipated decline in revenue in a particular quarter could disproportionately affect our net income in that quarter. In addition, we make a substantial portion of our shipments shortly after we receive the order, and therefore we operate with a relatively modest level of backlog. As a consequence of the just-in-time nature of shipments and the modest level of backlog, our results of operations may decline quickly and significantly in response to changes in order patterns or rapid decreases in demand for our products. We anticipate that fluctuations in operating results will continue in the future. Such fluctuations in our results could cause us to fail to meet the expectations of securities analysts or investors, which could cause the market price of our securities to decline substantially. We believe that period-to-period comparisons of our results of operations may not be meaningful, and you should not rely upon them as indicators of our future performance.

We may not be able to accurately forecast demand for our products.

As noted above, we typically operate our business on a just-in-time shipment basis with a modest level of backlog and we order supplies and plan production based on internal forecasts of demand. Due to these factors, we have, in the past, and may again in the future, fail to accurately forecast demand for our products, in terms of both volume and specific products for which there will be demand. This has led to, and may in the future lead to, delays in product shipments, disappointment of customer expectations, or, alternatively, an increased risk of excess inventory and of inventory obsolescence. If we fail to accurately forecast demand for our products, our business, financial condition and operating results could be materially and adversely affected.

Semiconductor industry up-cycles may not reach historic levels but instead may reflect a lower rate of long-term growth, similar to the electronics industry.

Notwithstanding the severe and prolonged downturn in the semiconductor industry and the related reduction in manufacturing operations during the period 2001 to 2003 as well as during the current period, there may still be excess manufacturing capacity. In addition, there is no new high-opportunity application to drive growth in the semiconductor industry, as was the case in 1998 with telecommunications and Internet applications. Accordingly, some analysts have predicted that the semiconductor industry may experience lower growth rates during a recovery cycle than has historically been the case and that its longer-term performance may reflect this lower growth rate, which would be similar to the growth rate of the electronics industry. For example, we are currently experiencing a severe downturn comparable to the 2001—2003 downturn; we are unable to predict the duration or ultimate severity of this downturn or the growth rate of any recovery cycle that may follow.

If we are unable to maintain our technological expertise in design and manufacturing processes, we will not be able to successfully compete.

The microelectronics industry is subject to rapid technological change, changing customer requirements and frequent new product introductions. Because of this, the life cycle of our products is difficult to determine. We believe that our future success will depend upon our ability to develop and provide products that meet the changing needs of our customers, including the transition from the use of 200 millimeter wafers to 300 millimeter wafers, the shrinking of integrated circuit line-widths and the use of new classes of materials, such as copper, titanium nitride and organic and inorganic dielectric materials, which are materials that have either a low or high resistance to the flow of electricity. This requires that we successfully anticipate and respond to technological changes in manufacturing processes in a cost-effective and timely manner. Any inability to develop the technical specifications for any of our new products or enhancements to our existing products or to manufacture and ship these products or enhancements in volume in a timely manner could harm our business prospects and significantly reduce our sales. In addition, if new products have reliability or quality problems, we may experience reduced orders, higher manufacturing costs, delays in acceptance and payment, additional service and warranty expense and damage to our reputation.

Because our sales are somewhat concentrated on a small number of key customers, our revenue and profitability may materially decline if one or more of our key customers do not continue to purchase our existing and new products in significant quantities.

We depend and expect to continue to depend on a limited number of customers for a large portion of our business, and changes in several customers' orders could have a significant impact on our operating results. Our top ten customers accounted for 26%, 28% and 27%, of our net sales in 2008, 2007 and 2006, respectively. If any one of our key customers decides to purchase significantly less from us or to terminate its relationship with us, our revenue and profitability may decline significantly. We could also lose our key customers or significant sales to our key customers because of factors beyond our control, such as a significant disruption in our customers' businesses generally or in a specific product line. These customers may stop incorporating our products into their products with limited notice to us and suffer little or no penalty for doing so. In addition, if any of our customers merge, we may experience lower overall sales from the merged companies. Because one of our strategies has been to develop long-term relationships with key customers in the product areas in which we focus, and because we have a long product design and development cycle for most of our products and prospective customers typically require lengthy product qualification periods prior to placing volume orders, we may be unable to replace these customers quickly or at all.

Because we are subject to order and shipment uncertainties and many of our costs are fixed, any significant changes, cancellations or deferrals of orders or shipments could cause our revenue and profitability to decline or fluctuate.

As is typical in the microelectronics industry, we do not usually obtain long-term purchase orders or commitments from our customers. Instead, we work closely with our customers to develop non-binding forecasts of the future volume of orders. Customers may cancel their orders, change production quantities from forecasted volumes or delay production for reasons beyond our control. Order cancellations or deferrals could cause us to hold inventory for longer than anticipated, which could reduce our profitability, restrict our ability to fund our operations and cause us to incur unanticipated reductions or delays in our revenue. Our customers often change their orders multiple times between initial order and delivery. Such changes usually relate to quantities or delivery dates, but sometimes relate to the specifications of the products we are supplying. If a customer does not timely pay for these products, we could incur significant charges against our income. In addition, our profitability may be affected by the generally fixed nature of our costs. Because a substantial portion of our costs is fixed, we may experience deterioration in gross margins when volumes decline. From time to time, we make capital investments in anticipation of future business opportunities. If we are unable to obtain the anticipated business, our revenue and profitability may decline.

Competition from existing or new companies in the microelectronics industry could cause us to experience downward pressure on prices, fewer customer orders, reduced margins, the inability to take advantage of new business opportunities and the loss of market share.

We operate in a highly competitive industry. We compete against many domestic and foreign companies that have substantially greater manufacturing, financial, research and development and marketing resources than we do. In addition, some of our competitors may have more developed relationships with our existing customers than we do, which may enable them to have their products specified for use more frequently by these customers. We also face competition from the manufacturing operations of our current and potential customers, who continually evaluate the benefits of internal manufacturing versus outsourcing. As more original equipment manufacturers dispose of their manufacturing operations and increase the outsourcing of their products to liquid and gas delivery system and other component companies, we may face increasing competitive pressures to grow our business in order to maintain our market share. If we are unable to maintain our competitive position, we could experience downward pressure on prices, fewer customer orders, reduced margins, the inability to take advantage of new business opportunities and a loss of market share. Further, we expect that existing and new competitors will improve the design of their existing products and will introduce new products with enhanced performance characteristics. The introduction of new products or more efficient production of existing products by our competitors could diminish our market share and increase pricing pressure on our products. Further, customers continue to demand lower prices, shorter delivery times and enhanced product capability. If we do not respond adequately to such pressures, we could lose customers or orders. If we are unable to compete successfully, we could experience pricing pressures, reduced gross margins and order cancellations.

Lack of market acceptance of our 300 mm shipper products as well as our other products could continue to harm our operating results.

The growing trend toward the use of 300 mm wafers has contributed to the increasing complexity of the semiconductor manufacturing process. The greater diameter of these wafers requires higher tooling costs and presents more complex handling, storage and transportation challenges. We have made substantial investments to complete a full line of 300 mm wafer shipping products, but there is no guarantee that our customers will adopt our 300 mm wafer shipping product lines as they convert existing 200 mm wafer fabrication facilities to the fabrication of 300 mm wafers or build new 300 mm wafer fabrication facilities, and sales of our shipping products for these applications has in the past and could continue in the future to be minimal and we might not recover our development costs.

Semiconductor and other electronic device manufacturers may direct semiconductor capital equipment manufacturers to use a specified supplier's product in their equipment. Accordingly, our success depends in part on our ability to have semiconductor and other electronic device manufacturers specify that our products be used at their fabrication facilities. Some of our competitors may have more developed relationships with semiconductor and other electronic device manufacturers, which enable them to have their products specified for use in manufacturers' fabrication facilities.

We may acquire other businesses, form joint ventures or divest businesses that could negatively affect our profitability, increase our debt and dilute your ownership of our company.

As part of our business strategy, we have, and we expect to continue to address gaps in our product offerings, diversify into complementary product markets or pursue additional technology and customers through acquisitions, joint ventures or other types of collaborations. We also expect to adjust our portfolio of businesses to meet our ongoing strategic objectives. As a result, we may enter markets in which we have no or limited prior experience and may encounter difficulties in divesting businesses that no longer meet our objectives. Competition for acquiring attractive businesses in our industry is substantial. In executing this part of our business strategy, we may experience difficulty in identifying suitable acquisition candidates or in completing selected transactions at appropriate valuations. Alternatively, we may be required to undertake multiple transactions at the same time in order to take advantage of acquisition opportunities that do arise; this could strain our ability to effectively execute and integrate these transactions. We consider a variety of financing alternatives for each acquisition which could include borrowing additional funds, reduction of our cash balances or issue of additional shares of our common stock to complete an acquisition. This could impair our liquidity and dilute your ownership of our company. Further, we may not be able to successfully integrate any acquisitions that we do make into our existing business operations and we could assume unknown or contingent liabilities or experience negative effects on our reported results of operations from dilutive results from operations and/or from future potential impairment of acquired assets including goodwill related to future acquisitions. We may experience difficulties in operating in foreign countries or over significant geographical distances and in retaining key employees or customers of an acquired business, and our management's attention could be diverted from other business issues. We may not identify or complete these transactions in a timely manner, on a cost-effective basis or at all, and we may not realize the benefits of any acquisition or joint venture.

Our amended credit agreement contains restrictions that limit our flexibility in operating our business.

Due to the economic downturn in our business we were projecting covenant violations in our $230 million revolving credit facility in the first half of 2009. Therefore, management, working with our banks, amended its revolving credit facility on March 2, 2009. Under our amended $150 million credit facility we are at a borrowing cap of $139 million. Our borrowing cap can be adjusted downward if our levels of qualifying US accounts receivable, inventories and value of our property plant and equipment were to decline from current levels. The remaining $11 million of the credit facility may not be borrowed unless a majority of the lenders consent. Total borrowings outstanding as of December 31, 2008 and February 27, 2009 was $139 million. In addition, our amended credit facility contains various covenants that limit our ability to engage in specified types of transactions including, among other things our ability to:

- incur additional indebtedness;
- pay dividends on, repurchase or make distributions in respect of our capital stock or make other restricted payments;
- make certain investments or acquisitions;
- sell certain assets;
- create liens;
- materially change the nature and manner in which we conduct our business;
- consolidate, merge, sell or otherwise dispose of all or substantially all of our assets; and
- enter into certain transactions with our affiliates.

Further, if our future financial performance fails to meet certain financial covenants, then our lenders may terminate the amended credit facility and declare all amounts due, control of our cash receipts from the sale of products as well as certain of our other assets; in this event, our ability to conduct business could be severely impeded.

Our amended credit agreement contains financial covenants that we may not be able to meet.

Our amended credit agreement contains various financial covenants that limit our ability to purchase no more than $16 million in capital equipment in 2009 and no more than $20 million in 2010; requires that we maintain a minimum level of cash in the US; and achieve certain levels of EBITDA performance during 2009 and the first quarter of 2010.

During the first two months of 2009 our revenue levels have declined significantly from those we experienced during the fourth quarter of 2008 which has a negative impact on our ability to remain compliant with the EBITDA levels as required by our debt covenants. If our revenue continues at these levels for the balance of 2009, at our current operating expense levels we will violate the financial covenants of our amended credit agreement during 2009. In the event that revenue levels do not improve in the very near term, management will be required to act upon its identified contingency plan to significantly reduce operating expenses in order to avoid violating those covenants. These reductions, if necessary, would include such items as; furloughs, permanent headcount reductions, office closures, further reductions in discretionary spending, elimination of certain new product development initiatives and other cost reduction measures. Certain of the contingency plan actions may likely need to be implemented late in the first quarter to realize the financial benefits necessary to maintain our debt compliance. While there can be no assurances that these actions will be sufficient, such contingency plans are within its control. Further management has the intent and ability to execute as necessary and believes such benefits are achievable. There can be no assurance that these additional operating expense reductions will not have a lasting negative impact on our long term business prospects.

Our borrowings under our amended credit agreement leave us with a high degree of leverage.

A high degree of leverage could have important consequences for our business and your investment, including:

- increasing our vulnerability to adverse economic, industry or competitive developments;
- requiring a substantial portion of our cash flow from operations to be dedicated to the payment of principal and interest on our indebtedness, therefore reducing our ability to use our cash flow to fund our operations, capital expenditures and future business opportunities;
- exposing us to the risk of increased interest rates on our borrowings;

- making it more difficult for us to satisfy our obligations with respect to our indebtedness;
- restricting us from making strategic acquisitions or causing us to make non-strategic divestitures;
- limiting our ability to obtain additional financing for working capital, capital expenditures, product development, debt service requirements, acquisitions and general corporate or other purposes; and
- limiting our flexibility in planning for, or reacting to, changes in our business or market conditions and placing us at a competitive disadvantage compared to our competitors who are less highly leveraged and who therefore, may be able to take advantage of opportunities that our leverage prevents us from exploiting.

Manufacturing Risks

Our dependence on single and limited source suppliers could affect our ability to manufacture our products.

We rely on single or limited source suppliers for some plastic polymers and petroleum coke that are critical to the manufacturing of our products. At times, we have experienced a limited supply of certain polymers as well as the need to substitute polymers, resulting in delays, increased costs and the risks associated with qualifying new polymers with our customers. An industry-wide increase in demand for these polymers could affect the ability of our suppliers to provide sufficient quantities to us. If we are unable to obtain an adequate quantity of such supplies, our manufacturing operations may be interrupted.

In addition, suppliers may discontinue production of polymers specified in certain of our products, requiring us in some instances to certify an alternative with our customers. If we are unable to obtain an adequate quantity of such supplies for any of the above reasons, our manufacturing operations may be affected. Obtaining alternative sources would likely result in increased costs and shipping delays, which could decrease profitability and damage our relationships with current and potential customers.

Prices for polymers can vary widely. In the volatile oil price environment, some suppliers have added and may in the future add surcharges to the prices of the polymers we purchase. While we have long-term arrangements with certain key suppliers of polymers that fix our price for purchases up to specified quantities, if our polymer requirements exceed the quantities specified, we could be exposed to higher material costs. If the cost of polymers increases and we are unable to correspondingly increase the sales price of our products, our profit margins will decline.

Our graphite synthesis process requires petroleum coke that meets specified criteria. While there are multiple suppliers for this petroleum coke, the required criteria may cause the price of this petroleum coke to increase.

Our production processes are becoming increasingly complex, and our production could be disrupted if we are unable to avoid manufacturing difficulties.

Our manufacturing processes are complex and require the use of expensive and technologically sophisticated equipment and materials. These processes are frequently modified to improve manufacturing yields and product quality. We have, on occasion, experienced manufacturing difficulties, such as temporary shortages of raw materials and occasional critical equipment breakdowns that have delayed deliveries to customers. A number of our product lines are manufactured at only one or two facilities, and any disruption could impact our sales until another facility could commence or expand production of such products.

Our manufacturing operations are subject to numerous risks, including the introduction of impurities in the manufacturing process and other manufacturing difficulties that may not be well understood for an extended period of time and that could lower manufacturing yields and make our products unmarketable; the costs and demands of managing and coordinating geographically diverse manufacturing facilities; and the disruption of production in one or more facilities as a result of a slowdown or shutdown in another facility. We could experience these or other manufacturing difficulties, which might result in a loss of customers and exposure to product liability claims.

We may lose sales if we are unable to timely procure, repair or replace capital equipment necessary to manufacture many of our products.

If our existing equipment fails, or we are unable to obtain new equipment quickly enough to satisfy any increased demand for our products, we may lose sales to competitors. In particular, we do not maintain duplicate tools or equipment for most of our important products. Fixing or replacing complex tools is time consuming, and we may not be able to replace a damaged tool in time to meet customer requirements. In addition, from time to time we may upgrade or add new manufacturing equipment that may require substantial lead times to build and qualify. Delays in building and qualifying new equipment could result in a disruption of our manufacturing processes and prevent us from meeting our customers' requirements so that they would seek other suppliers.

We incur significant cash outlays over long-term periods in order to research, develop, manufacture and market new products that may never reach market or may have limited market acceptance.

We make significant cash expenditures to engineer, research, develop and market new products. For example, we incurred $40.1 million, $39.7 million and $38.1 million of engineering, research and development expense in 2008, 2007 and 2006, respectively. The development period for a product can be as long as five years. Following development, it may take an additional two to three years for sales of that product to reach a substantial level. We cannot be certain of the success of a new product. A product concept may never progress beyond the development stage or may only achieve limited acceptance in the marketplace. If this occurs, we do not receive a direct return on our expenditures and may not even realize any indirect benefits. Additionally, capacity expansion may be necessary in order to manufacture a new product. If sales levels do not increase to offset the additional fixed operating expenses associated with any such expansion, our revenue and profitability could decline and our prospects could be harmed.

We are subject to a variety of environmental laws that could cause us to incur significant expenses.

In addition to other regulatory requirements affecting our business, we are subject to a variety of federal, state, local and foreign regulatory requirements relating to the use, disposal, clean-up of, and human exposure to, hazardous chemicals. We generate and handle materials that are considered hazardous waste under applicable law. Certain of our manufacturing operations require the discharge of substantial quantities of wastewater into publicly owned waste treatment works which require us to assure that our wastewater complies with volume and content limitations. If we fail to comply with any present or future regulations, we could be subject to future liabilities or the suspension of production. In addition, compliance with these or future laws could restrict our ability to expand our facilities or build new facilities or require us to acquire costly equipment, incur other significant expenses or modify our manufacturing processes.

We are continually evaluating our manufacturing operations within our plants in order to achieve efficiencies and gross margin improvements. If we are unable to successfully manage transfers or realignments of our manufacturing operations, our ability to deliver products to our customers could be disrupted and our business, financial condition and results of operations could be adversely affected.

In order to enhance the efficiency and cost effectiveness of our manufacturing operations, we expect to move several product lines from one of our plants to another and to consolidate manufacturing operations in our plants. For example, in the fourth quarter of 2008 we announced the closure of our largest North American plant, located in Chaska, Minnesota, and the transfer of its manufacturing activities to our Kulim, Malaysia and Colorado Springs, Colorado plants. Our product lines involve technically complex manufacturing processes that require considerable expertise to operate. If we are unable to effect these transfers, realignments and consolidations in a systematic manner within established schedules or if we are unable to successfully operate relocated manufacturing processes in the destination plant, production may be disrupted and we may not be able to deliver these products to meet customer orders in a timely manner, which could harm our business.

Loss of our key personnel could hurt our business because of their experience in the microelectronics industry and their technological expertise. Similarly, our inability to attract and retain new qualified personnel could inhibit our ability to operate and grow our business successfully.

We depend on the services of our key senior executives and technological experts because of their experience in the microelectronics industry and their technical expertise. The loss of the services of one or several of our key employees or an inability to attract, train and retain qualified and skilled employees, specifically research and development and engineering personnel, could result in the loss of customers or otherwise inhibit our ability to operate and grow our business successfully. In the past and currently, during downturns in the semiconductor industry our predecessor companies have, and the Company has, had to impose salary reductions on senior employees and freeze or eliminate merit increases in an effort to maintain its financial position. These actions may have an adverse effect on employee loyalty and may make it more difficult for us to attract and retain key personnel.

If we are unable to protect our intellectual property rights, our business and prospects could be harmed.

Our future success and competitive position depend in part upon our ability to obtain and maintain proprietary technology used in our principal product families. We rely, in part, on patent, trade secret and trademark law to protect that technology. We routinely enter into confidentiality agreements with our employees. However, there can be no assurance that these agreements will not be breached, that we will have adequate remedies for any breach or that our confidential and proprietary information and technology will not be independently developed by or become otherwise known to third parties. We have obtained a number of patents relating to our products and have filed applications for additional patents. We cannot assure you that any of our pending patent applications will be approved, that we will develop additional proprietary technology that is patentable, that any patents owned by or issued to us will provide us with competitive advantages or that these patents will not be challenged by third parties. Patent filings by third parties, whether made before or after the date of our filings, could render our intellectual property less valuable. Competitors may misappropriate our intellectual property, and disputes as to ownership of intellectual property may arise. In addition, if we do not obtain sufficient international protection for our intellectual property, our competitiveness in international markets could be significantly impaired, which would limit our growth and future revenue. Furthermore, there can be no assurance that third parties will not design around our patents.

Protection of our intellectual property rights has and may continue to result in costly litigation.

We may from time to time be required to institute litigation in order to enforce our patents, copyrights or other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement. Such litigation could result in substantial costs and diversion of resources and could negatively affect our sales, profitability and prospects regardless of whether we are able to successfully enforce our rights. For example, as described in Item 3, “Legal Proceedings,” below we are engaged in multiple patent litigations with Pall Corporation. We intend to prosecute and defend these cases vigorously and expect that these lawsuits will continue for extended periods of time and that we will incur substantial costs in pursuing them. In addition it may become necessary for us to initiate other costly patent litigation against this or other competitors in order to protect and/or perfect our intellectual property rights.

If we infringe on the proprietary technology of others, our business and prospects could be harmed.

Our commercial success will depend, in part, on our ability to avoid infringing or misappropriating any patents or other proprietary rights owned by third parties. If we are found to infringe or misappropriate a third party’s patent or other proprietary rights, we could be required to pay damages to such third party, alter our products or processes, obtain a license from the third party or cease activities utilizing such proprietary rights, including making or selling products utilizing such proprietary rights. If we are required to obtain a license from a third party, there can be no assurance that we will be able to do so on commercially favorable terms, if at all.

International Risks

We conduct a significant amount of our sales activity and manufacturing efforts outside the United States, which subjects us to additional business risks and may cause our profitability to decline due to increased costs.

Sales to customers outside the United States accounted for approximately 71% of our net sales in 2008, 74% of our net sales in 2007, and 71% of our net sales in 2006. We anticipate that international sales will continue to account for a majority of our net sales. In addition, a number of our key domestic customers derive a significant portion of their revenues from sales in international markets. We also manufacture a significant portion of our products outside the United States and are dependent on international suppliers for many of our parts. We intend to continue to pursue opportunities in both sales and manufacturing internationally. Our international operations are subject to a number of risks and potential costs that could adversely affect our revenue and profitability, including:

- unexpected changes in regulatory requirements that could impose additional costs on our operations or limit our ability to operate our business;
- greater difficulty in collecting our accounts receivable and longer payment cycles than is typical in domestic operations;
- changes in labor conditions and difficulties in staffing and managing foreign operations;
- expense and complexity of complying with U.S. and foreign import and export regulations;
- liability for foreign taxes assessed at rates higher than those applicable to our domestic operations; and
- political and economic instability.

In the past, we have incurred costs or experienced disruptions due to the factors described above and expect to do so in the future. For example, our operations in Asia, and particularly Korea, Taiwan and Japan, have been negatively impacted in the past as a result of regional economic instability. In addition, Taiwan and Korea account for a growing portion of the world’s semiconductor manufacturing. There have historically been strained relations between China and Taiwan and there are continuing tensions between North Korea and South Korea and the United States. Any adverse developments in those relations could significantly disrupt the worldwide production of semiconductors, which may lead to reduced sales of our products. Furthermore, we incur additional legal compliance costs associated with our international operations and could become subject to legal penalties in foreign countries if we do not comply with local laws and regulations, which may be substantially different from those in the United States. In many foreign countries it is common to engage in business practices that are prohibited by United States law applicable to us such as the Foreign Corrupt Practices Act. Although we implement policies and procedures designed to ensure compliance with these laws, there can be no assurance that all of our employees, contractors and agents, as well as those companies to which we outsource certain of our business operations, including those based in countries where practices that violate such United States laws may be customary, will not take actions in violation of our policies. Any such violation, even if prohibited by our policies, could have an adverse effect on our business.

Fluctuations in the value of the U.S. dollar in relation to other currencies may lead to lower net income and shareholders’ equity or may cause us to raise prices, which could result in reduced net sales.

Foreign currency exchange rate fluctuations could have an adverse effect on our net sales, results of operations and shareholders’ equity. Unfavorable foreign currency fluctuations against the U.S. dollar could require us to increase prices to foreign customers, which could result in lower net sales by us to such customers. Alternatively, if we do not adjust the prices for our products in response to unfavorable foreign currency fluctuations, our profitability could decline. In addition, sales made by our foreign subsidiaries will be denominated in the currency of the country in which these products are sold, and the currency we receive in payment for such sales could be less valuable at the time of receipt versus the time of sale as a result of foreign currency exchange rate fluctuations.

As we seek to source more of the materials from which our products are made from foreign countries we may be subject to increased import duties.

In an effort to reduce the cost of our products or to obtain the highest quality materials, we expect that our purchases of raw materials and components from foreign countries will increase. Those of our products manufactured in the United States or other countries from these materials and components may consequently be burdened by import duties imposed by the U.S. or those other countries, and these additional costs may be substantial and may put our products at a competitive disadvantage.

An increased concentration of wafer manufacturing in Japan could result in lower sales of our wafer shipper products.

A large percentage of the world's 300 mm wafer manufacturing currently takes place in Japan. Our market share in Japan is currently lower than in other regions we serve. If we are not able to successfully operate our manufacturing capability and increase market share in Japan, we might not be able to maintain our global market share in wafer shipper products, especially if 300 mm wafer manufacturing in Japan increases.

Terrorist attacks, such as the attacks that occurred in New York and Washington, D.C. on September 11, 2001 and other acts of violence or war may affect the markets in which we operate and hurt our profitability.

Terrorist attacks may negatively affect our operations and your investment. There can be no assurance that there will not be future terrorist attacks against the United States or United States businesses. These attacks or armed conflicts may directly impact our physical facilities or those of our suppliers or customers. Our primary facilities include headquarters, research and development and manufacturing facilities in the United States; sales, research and development and manufacturing facilities in Japan and Malaysia; and sales and service facilities in Europe and Asia. Attacks may also disrupt the global insurance and reinsurance industries with the result that we may not be able to obtain insurance at historical terms and levels for our facilities. Furthermore, such attacks may make travel and the transportation of our supplies and products more difficult and more expensive and may ultimately affect the sales of our products in the United States and overseas. As a result of terrorism the United States may enter into additional armed conflicts, which could have a further impact on our domestic and international sales, our supply chain, our production capacity and our ability to deliver products to our customers. The consequences of these armed conflicts and the associated instability are unpredictable, and we may not be able to foresee events that could have an adverse effect on our business and your investment.

Risks Related to the Economy, Securities Markets and Ownership of our Securities

Volatility in the global economy could adversely affect results.

Financial markets in the United States, Europe and Asia have been experiencing extreme disruption in recent months, including, among other things, volatility in security prices, diminished liquidity and credit availability, rating downgrades of certain investments and declining valuation of others. Currently, these conditions have had a significant impact on our financial condition and results of operations. Further, there can be no assurance that there will not be further change, which could lead to further challenges in our business and negatively impact our financial results. The current tightening of credit in financial markets adversely affects the ability of our customers and suppliers to obtain financing for significant purchases and operations and could result in a decrease in orders and spending for our products and services. We are unable to predict with certainty the likely duration and severity of the current disruption in financial markets and adverse economic conditions and the effects they may have on our business and financial condition.

Because of the past volatility of our stock price and the stock price of predecessor companies, the price of our common stock in the future may likewise be volatile so that the ability to trade our common shares may be adversely affected and our ability to raise capital through future equity financing may be reduced.

The price of our common stock has been volatile in the past and may be volatile in the future. For example: in fiscal year 2008, the closing price of our stock on the NASDAQ National Market ranged from a low of $1.04 to a high of $8.76 and in fiscal year 2007, the closing price of our stock on the NASDAQ National Market ranged from a low of $7.87 to a high of $12.18. Our share price was $0.61 at February 27, 2009.

The trading price of our common shares is subject to significant volatility in response to various factors, some of which are beyond our control, including factors discussed elsewhere in this report and including the following: the failure to meet the published expectations of securities analysts; changes in financial estimates by securities analysts; press releases or announcements by, or changes in market values of, comparable companies; volatility in the markets for high-technology stocks, general stock market price and volume fluctuations, which are particularly common among securities of high-technology companies; stock market price and volume fluctuations attributable to inconsistent trading volume levels; additions or departures of key personnel; and involvement in or adverse results from litigation. These market fluctuations may cause the trading price of our common stock to decrease.

If our common stock continues to trade below book value and the business outlook does not improve or worsens, we could likely be required to record material impairment losses for our long-lived assets, including property, plant and equipment and our identifiable intangibles.

In accordance with SFAS No. 144, the Company reviews its long-lived assets whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. If the carrying amount of an asset or group of assets exceeds its fair value, the asset will be written down to its fair value. In connection with the triggering events discussed above, during the third and fourth quarters of fiscal year 2008 the Company determined that none of its long-lived assets were impaired for its asset groups. The determination was based on reviewing estimated undiscounted cash flows for the Company's asset groups, which were greater than their carrying values. As required under U.S. generally accepted accounting principles, the SFAS No. 144 impairment analysis occurred before the SFAS No. 142 goodwill impairment assessment.

The evaluation of the recoverability of long-lived assets requires the Company to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to, the identification of the asset group at the lowest level of independent cash flows and the primary asset of the group; and long-range forecasts of revenue, reflecting management's assessment of general economic and industry conditions, operating income, depreciation and amortization and working capital requirements.

Due to the inherent uncertainty involved in making these estimates, which are made in the current economic environment and plan for a recovery, actual results could differ from those estimates. In addition, changes in the underlying assumptions would have a significant impact on the conclusion that an asset group's carrying value is recoverable, or the determination of any impairment charge if it was determined that the asset values were indeed impaired.

Due to the decline in the Company's market capitalization and the uncertain economic environment within the semiconductor industry, the Company will continue to monitor circumstances and events in future periods to determine whether additional asset impairment testing is warranted. It is possible that in the future the Company may no longer be able to conclude that there is no impairment of its long-lived assets, nor can the Company provide assurance that material impairment charges of long-lived assets will not occur in future periods.

Changes effected by the Sarbanes-Oxley Act of 2002 and related SEC regulations have in the past and are likely to continue to increase our costs.

The Sarbanes-Oxley Act of 2002 required changes in some of our corporate governance, securities disclosure and compliance practices. In response to the requirements of that Act, the Securities and Exchange Commission and the NASDAQ have promulgated new rules and listing standards covering a variety of subjects. Compliance with these rules and listing standards has increased our legal and financial and accounting costs, and we expect these increased costs to continue indefinitely. We also expect these developments to make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be forced to accept reduced coverage or incur substantially higher costs to obtain coverage. Likewise, these developments may make it more difficult for us to attract and retain qualified members of our board of directors, particularly independent directors, or qualified executive officers.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results. As a result, current and potential stockholders could lose confidence in our financial reporting, which would harm our business and the trading price of our stock.

Effective internal controls are necessary for us to provide reliable financial reports. If we cannot provide reliable financial reports, our business and operating results could be harmed. We have in the past discovered, and may in the future discover, areas of our internal controls that need improvement. For example, during each of the years 2008, 2007 and 2006, a material weakness in internal control over financial reporting was identified. Each of these material weaknesses represented a reasonable possibility that a material misstatement of the Company's annual or interim financial statements would not have been prevented or detected. None of these material weaknesses required the restatement of any of our annual financial statements.

Any failure to implement and maintain improvements in the controls over our financial reporting, or difficulties encountered in the implementation of these improvements in our controls, could cause us to fail to meet our reporting obligations. Any failure to improve our internal controls to address the identified material weaknesses could also cause investors to lose confidence in our reported financial information, which could have a negative impact on the trading price of our stock.

Provisions in our charter documents, Delaware law and our shareholder rights plan may delay or prevent an acquisition of us, which could decrease the value of your shares.

Our certificate of incorporation and By-Laws, Delaware law and our shareholder rights plan contain provisions that could make it harder for a third party to acquire us without the consent of our board of directors. These provisions include limitations on actions by our stockholders by written consent. In addition, our board of directors has the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer. Our shareholder rights plan will permit our stockholders to purchase shares of our common stock at a 50% discount upon the occurrence of specified events, including the acquisition by anyone of 15% or more of our common stock, unless such event is approved by our board of directors. Delaware law also imposes restrictions on mergers and other business combinations between us and any holder of 15% or more of our outstanding common stock. Although we believe these provisions provide for an opportunity to receive a higher bid by requiring potential acquirers to negotiate with our board of directors, these provisions apply even if the offer may be considered beneficial by stockholders. If a change of control or change in management is delayed or prevented, the market price of our common stock could suffer.

Your percentage ownership in us may be diluted by future issuances of capital stock, which could reduce your influence over matters on which stockholders vote.

Subject to applicable NASDAQ standards, our board of directors has the authority, without action or vote of our stockholders, to issue all or any part of our authorized but unissued shares. Issuances of common stock or the exercise of employee and director stock options would dilute your percentage ownership interest, which will have the effect of reducing your influence over matters on which our stockholders vote. In addition, we may issue substantial quantities of our common stock in order to effect acquisitions which would also dilute your ownership interest. If the issuances are made at prices that reflect a discount from the then current trading price of our common stock, your interest in the book value of our common stock might be diluted.

Item 1B. Unresolved Staff Comments.

Not Applicable.

Item 2. Properties.

Our principal executive offices are located in Chaska, Minnesota. We also have manufacturing, design and equipment cleaning facilities in the United States, Japan, France, Taiwan and Malaysia. Information about our principal facilities is set forth below:

Location	Principal Function	Approximate Square Feet	Leased/Owned
Chaska, Minnesota	Executive Offices, Research & Manufacturing	370,000	Owned(1)
Chaska, Minnesota	Warehouse	200,000	Leased
Billerica, Massachusetts	Executive Offices, Research & Manufacturing	175,000	Leased (2)
Colorado Springs, Colorado	Manufacturing	82,000	Owned
Gilroy, California	Manufacturing; Cleaning Services	60,000	Owned(3)
Decatur, Texas	Manufacturing	359,000	Owned
Montpellier, France	Cleaning Services	53,000	Owned
Yonezawa, Japan	Manufacturing	196,000	Owned
Kulim, Malaysia	Manufacturing	195,000	Owned

(1) In the fourth quarter of 2008, we announced that one of these buildings, comprising 178,000 square feet and housing our corporate headquarters, would be closed during the first half of 2009.

(2) This lease expires March 31, 2014, but is subject to two five-year renewal options.

(3) This facility was closed in 2008 and was in the process of being sold as of December 31, 2008.

We lease approximately 4,200 square feet of manufacturing space in Millipore's facility located at 80 Ashby Road, Bedford, Massachusetts pursuant to an Amended and Restated Membrane Manufacturing and Supply Agreement that expires December 31, 2010. We also lease approximately 13,000 square feet of research and development and manufacturing office space in two buildings located in San Diego, California. Approximately 31,000 square feet of office, research and development and manufacturing space located in Franklin, Massachusetts was assumed pursuant to the Mykrolis acquisition of Extraction Systems, Inc. in 2005.

We also lease an aggregate of approximately 11,000 square feet of office, research and development and manufacturing space in two buildings located in Burlington, Massachusetts which we acquired in connection with our acquisition of a specialty coatings business. These leases are for a term expiring December 31, 2009.

We maintain a worldwide network of sales, service, repair and cleaning centers in the United States, Germany, France, Japan, Taiwan, Singapore, China and Korea. Leases for our facilities expire through March 2014. We currently expect to be able to extend the terms of expiring leases or to find suitable replacement facilities on reasonable terms.

We believe that our facilities are well-maintained and suitable for their respective operations. All of our facilities are generally utilized within a normal range of production volume. However, many of our facilities were utilized below our normal range of production volume in the latter half of 2008 due to rapidly declining business levels. We are currently preparing several facilities in anticipation of expected product transfers related to the closure of one of the Company's facilities in Chaska, Minnesota.

Item 3. Legal Proceedings.

The following discussion provides information regarding certain litigation to which the Company was a party that were pending as of December 31, 2008.

As previously disclosed, on March 3, 2003 the Company's predecessor, Mykrolis Corporation, filed a lawsuit against Pall Corporation in the United States District Court for the District of Massachusetts alleging infringement of two of the Company's U.S. patents by certain fluid separation systems and related assemblies used in photolithography applications manufactured and sold by the defendant. The Company's lawsuit also sought a preliminary injunction preventing the defendant from the manufacture, use, sale, offer for sale or importation into the U.S. of any infringing product. On April 30, 2004, the Court issued a preliminary injunction against Pall Corporation and ordered Pall to immediately stop making, using, selling, or offering to sell within the U.S., or importing into the U.S., its PhotoKleen EZD-2 Filter Assembly products or “any colorable imitation” of those products. On January 18, 2005, the Court issued an order holding Pall Corporation in contempt of court for the violation of the preliminary injunction and ordering Pall to disgorge all profits earned from the sale of its PhotoKleen EZD-2 Filter Assembly products and colorable imitations thereof from the date the preliminary injunction was issued through January 12, 2005. In addition, Pall was also ordered to reimburse Mykrolis for certain of its attorney’s fees associated with the contempt and related proceedings. The Court’s order also dissolved the preliminary injunction, effective January 12, 2005, based on certain prior art cited by Pall which it alleged raised questions as to the validity of the patents in suit. On February 17, 2005, the Company filed notice of appeal to the U.S. Circuit Court of Appeals for the Federal Circuit appealing the portion of the Court’s order that dissolved the preliminary injunction and Pall filed a notice of appeal to that court with respect to the finding of contempt and the award of attorneys’ fees. On June 13, 2007 the Court of Appeals issued an opinion dismissing Pall’s appeal for lack of jurisdiction and affirming the District Court’s order dissolving the preliminary injunction.

On April 6, 2006 the Company filed a lawsuit against Pall Corporation in the United States District Court for the District of Massachusetts alleging infringement of the Company’s newly issued U.S. patent No. 7,021,667 by certain filter assembly products used in photolithography applications that are manufactured and sold by the defendant. The Company’s lawsuit also seeks a preliminary injunction preventing the defendant from the manufacture, use, sale, offer for sale or importation into the U.S. of the infringing products. On October 23, 2006 the Company’s motion for preliminary injunction was argued before the court. On March 31, 2008 the court issued an order denying the Company’s motion for a preliminary injunction.

On August 23, 2006 the Company filed a lawsuit against Pall Corporation in the United States District Court for the District of Massachusetts alleging infringement of the Company’s newly issued U.S. patent No. 7,037,424 by certain fluid separation modules and related separation apparatus, including the product known as the EZD-3 Filter Assembly, used in photolithography applications that are manufactured and sold by the defendant. It is believed that the EZD-3 Filter Assembly was introduced into the market by the defendant in response to the action brought by the Company in March of 2003 as described above. On May 5, 2008, the court issued an order consolidating this case with the two cases described in the preceding paragraphs for purposes of discovery; these cases are currently in the discovery stage.

As previously disclosed, on December 16, 2005 Pall Corporation filed suit against the Company in U.S. District Court for the Eastern District of New York alleging patent infringement. Specifically, the suit alleges infringement of two of plaintiff’s patents by one of the Company’s gas filtration products and by the packaging for certain of the Company’s liquid filtration products. Both products and their predecessor products have been on the market for a number of years. The Company intends to vigorously defend this suit and believes that it will ultimately prevail. This case is currently awaiting a hearing before the court for claim construction of the patents in suit.

On May, 4, 2007 Pall Corporation filed a lawsuit against the Company in the U.S. District Court for the Eastern District of New York alleging patent infringement. Specifically, the suit alleges that certain of the Company’s point-of-use filtration products infringe a newly issued Pall patent, as well as three older Pall patents. Pall’s action, which relates only to the U.S., asserts that “on information and belief” the Company’s Impact 2 and Impact Plus point-of-use photoresist filters infringe a patent issued to Pall on March 27, 2007, as well as three older patents. The Company intends to vigorously defend this suit and believes that it will ultimately prevail. This case is currently in the discovery stage.

Item 4. Submission of Matters to a Vote of Security Holders.

None.

PART II

Item 5. Market for Entegris' Common Stock, Related Stockholder Matters and Issuer Purchases of Equity Securities.

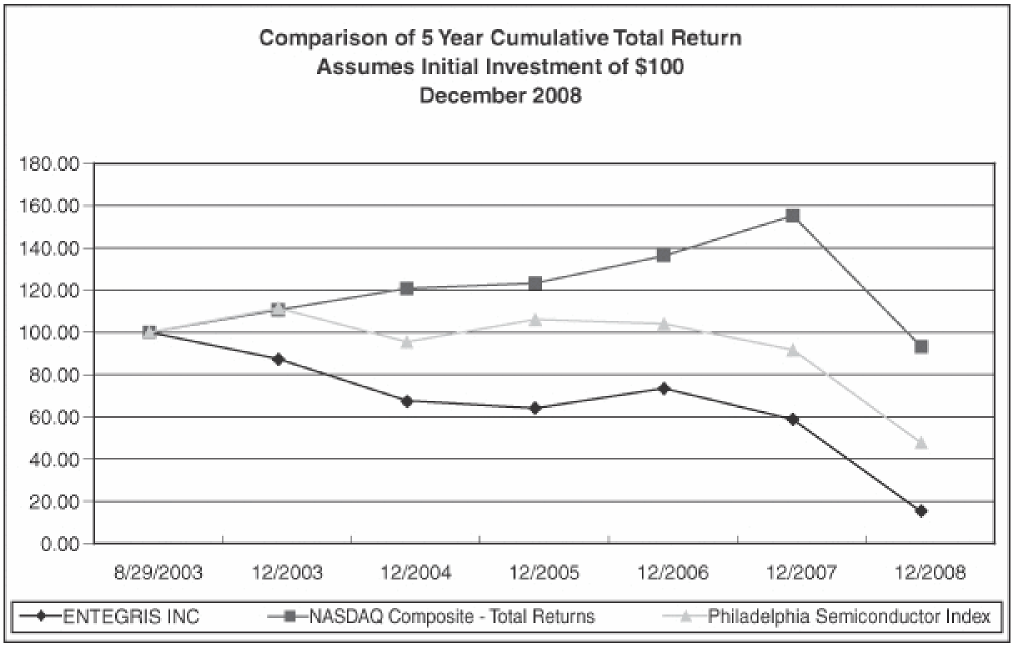
Entegris' Common Stock, $0.01 par value, trades on the NASDAQ National Market System (NMS) under the symbol "ENTG". The following table sets forth the highest and lowest sale prices of the Company shares during fiscal 2008 and 2007. As of February 1, 2009 there were 1,320 shareholders of record.

	Fiscal 2008		Fiscal 2007	
	High	Low	High	Low
First quarter	$8.76	$6.39	$11.98	$10.21
Second quarter	$8.05	$6.56	$12.18	$10.11
Third quarter	$7.10	$4.49	$12.17	$ 8.69
Fourth quarter	$4.94	$1.04	$ 9.49	$ 7.87

The Company has never declared or paid any cash dividends on its capital stock. The Company currently intends to retain all available earnings for use in its business operations and debt service and does not anticipate paying any cash dividends in the foreseeable future. On July 27, 2005 the Entegris Board of Directors declared a dividend of one common stock purchase right for each share of Entegris Common Stock outstanding to shareholders of record on August 8, 2005, payable on August 8, 2005. For a description of the Common Stock Rights Plan see "Other Information" in Item 1 above. Each right generally entitles the holder to purchase one one-hundredth of a share of a series of preferred stock of Entegris at a price of $50.

Comparative Stock Performance

The following graph compares the cumulative total shareholder return on the common stock of Entegris, Inc. from August 29, 2003 through December 31, 2008 with cumulative total return of (1) The NASDAQ Composite Index (NASDAQ), and (2) The Philadelphia Semiconductor Index (SOX), assuming $100 was invested at the close of trading August 29, 2003 in Entegris, Inc. common stock, the NASDAQ Composite Index and the Philadelphia Semiconductor Index and that all dividends are reinvested.



	August 29, 2003	December 31, 2003	December 31, 2004	December 31, 2005	December 31, 2006	December 31, 2007	December 31, 2008
Entegris, Inc.	100	87.30	67.59	63.99	73.50	58.62	14.87
NASDAQ Composite	100	110.66	120.79	123.35	136.17	155.06	93.09
Phila. Semi. Index	100	111.42	95.29	105.93	104.09	91.60	47.63

Issuer Purchases of Equity Securities

None

Item 6. Selected Financial Data

The table that follows presents selected financial data for each of the last five fiscal years and four months ended December 31, 2005 from the Company's consolidated financial statements and should be read in conjunction with the Company's Consolidated Financial Statements and the related Notes and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Form 10-K Report.

On December 13, 2005, the Company's board of directors approved a change in fiscal year end from a 52-week or 53-week fiscal year period ending on the last Saturday of August to December 31, effective as of December 31, 2005.

(In thousands, except per share amounts)	Year ended December 31, 2008	Year ended December 31, 2007	Year ended December 31, 2006	Four months ended December 31, 2005	Year ended August 27, 2005	Year ended August 28, 2004
Operating Results						
Net sales	$ 554,699	$ 626,238	$ 672,882	$ 199,644	$347,345	$329,006
Gross profit	211,515	266,237	305,078	70,207	138,183	149,857
Selling, general and administrative expenses	147,531	163,918	170,702	71,297	105,281	87,771
Engineering, research and development expenses	40,086	39,727	38,074	13,904	18,188	18,066
Amortization of intangible assets	19,585	18,874	17,609	5,956	5,060	3,891
Impairment of goodwill	473,799	—	—	—	—	—
Restructuring charges	10,423	—	—	—	—	—
Operating (loss) profit	(479,909)	43,718	78,693	(20,950)	9,654	40,129
(Loss) income before income taxes and equity in affiliate earnings	(496,413)	56,619	89,556	(18,572)	14,307	41,478
Income tax expense (benefit)	19,201	10,356	26,936	(8,713)	1,154	13,223
(Loss) income from continuing operations	(515,897)	46,356	63,151	(9,789)	12,906	28,242
Net (loss) income	$(517,002)	$ 44,359	$ 63,466	$ (18,324)	$ 9,393	$ 24,770
Earnings Per Share Data						
Diluted (loss) earnings per share—continuing operations	$ (4.58)	$ 0.37	$ 0.46	$ (0.07)	$ 0.16	$ 0.37
Weighted average shares outstanding—diluted	112,653	124,940	138,492	135,437	79,328	76,220
Operating Ratios—% of net sales						
Gross profit	38.1%	42.5%	45.3%	35.2%	39.8%	45.5%
Selling, general and administrative expenses	26.6	26.2	25.4	35.7	30.3	26.7
Engineering, research and development expenses	7.2	6.3	5.7	7.0	5.2	5.5
Amortization of intangible assets	3.5	3.0	2.6	3.0	1.5	1.2
Impairment of goodwill	85.4	—	—	—	—	—
Restructuring charges	1.9	—	—	—	—	—
Operating (loss) profit	(86.5)	7.0	11.7	(10.5)	2.8	12.2
(Loss) income before income taxes and equity in affiliate earnings	(89.5)	9.0	13.3	(9.3)	4.1	12.6
Effective tax rate	(3.9)	18.3	30.1	46.9	8.1	31.9
Net (loss) income	(93.2)	7.1	9.4	(9.2)	2.7	7.5

(In thousands, except per share amounts)	Year ended December 31, 2008	Year ended December 31, 2007	Year ended December 31, 2006	Four months ended December 31, 2005	Year ended August 27, 2005	Year ended August 28, 2004
Cash Flow Statement Data						
Depreciation and amortization	$ 46,343	$ 43,776	$ 42,905	$ 13,754	$ 23,599	$ 23,575
Capital expenditures	26,987	26,919	30,860	10,311	19,472	19,633
Net cash provided by operating activities	66,260	132,017	96,076	22,598	52,323	52,658
Net cash (used in) provided by investing activities	(199,921)	50,800	(17,370)	(13,116)	58,807	(86,880)
Net cash provided by (used in) financing activities	82,681	(183,061)	(80,037)	(15,432)	3,066	1,835
Balance Sheet and Other Data						
Current assets	$ 313,128	$ 382,621	$ 556,321	$ 516,364	$ 546,502	$276,482
Current liabilities	79,356	125,749	92,699	111,017	124,856	63,895
Working capital	233,772	256,872	463,622	405,347	421,646	212,587
Current ratio	3.95	3.04	6.00	4.65	4.38	4.33
Long-term debt	150,516	20,373	2,995	3,383	21,800	18,898
Shareholders’ equity	336,170	852,309	1,015,980	1,012,819	1,023,414	372,185
Total assets	597,824	1,035,241	1,157,618	1,142,790	1,185,620	467,046
Return on average shareholders’ equity—%	(87.0)	4.7	6.3	(1.8)	1.3	7.0
Shares outstanding at end of period	113,102	115,356	132,771	136,044	135,299	73,380

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis of the Company's consolidated financial condition and results of operations with the consolidated financial statements and the accompanying notes to the consolidated financial statements included elsewhere in this document. *This discussion contains forward-looking statements that involve numerous risks and uncertainties, including, but not limited to, those described in the* "FACTORS AND UNCERTAINTIES THAT MAY AFFECT FUTURE RESULTS" *section of this Item 7. The Company's actual results may differ materially from those contained in any forward-looking statements.*

Overview

This overview is not a complete discussion of the Company's financial condition, changes in financial condition and results of operations; it is intended merely to facilitate an understanding of the most salient aspects of its financial condition and operating performance and to provide a context for the discussion that follows. The detailed discussion and analysis that follows must be read in its entirety in order to fully understand the Company's financial condition and results of operations.

Entegris, Inc. is a leading provider of products and services that purify, protect and transport the critical materials used in key technology-driven industries. Entegris derives most of its revenue from the sale of products and services to the semiconductor and data storage industries. The Company's customers consist primarily of semiconductor manufacturers, semiconductor equipment and materials suppliers, and hard disk manufacturers, which are served through direct sales efforts, as well as sales and distribution relationships, in the United States, Asia, Europe and the Middle East.

The Company offers a diverse product portfolio which includes more than 15,000 standard and customized products that we believe provide the most comprehensive offering of materials integrity management products and services to the microelectronics industry. Certain of these products are unit-driven and consumable products that rely on the level of semiconductor manufacturing activity to drive growth, while others rely on expansion of manufacturing capacity to drive growth. The Company's unit-driven and consumable product class includes wafer shippers, disk shipping containers and test assembly and packaging products, membrane-based liquid filters and housings, metal-based gas filters and resin-based gas purifiers, as well as PVA roller brushes for use in post-CMP cleaning applications. The Company's capital expense- driven products include its process carriers that protect the integrity of in-process wafers, components, systems and subsystems that use electro-mechanical, pressure differential and related technologies to permit semiconductor and other electronics manufacturers to monitor and control the flow and condition of process liquids used in these manufacturing processes. With its August 2008 acquisition of Poco Graphite, Inc. (POCO) described below, the Company added process-critical, graphite-based consumables and finished products used in a variety of markets to its portfolio of products.

Key operating factors Key factors, which management believes have the largest impact on the overall results of operations of Entegris, Inc., include:

- ***Level of sales*** Since a large portion of the Company's product costs (except for raw materials, purchased components and direct labor) are largely fixed in the short to medium term, an increase or decrease in sales affects gross profits and overall profitability significantly. Also, increases or decreases in sales and operating profitability affect certain costs such as incentive compensation and commissions, which are highly variable in nature. The Company's sales are subject to effects of industry cyclicality, technological change and substantial competition, including pricing pressures.
- ***Variable margin on sales*** The Company's variable margin on sales is determined by selling prices and the costs of manufacturing and raw materials. This is also affected by a number of factors, which include the Company's sales mix, purchase prices of raw material (especially resin and purchased components), competition, both domestic and international, direct labor costs, and the efficiency of the Company's production operations, among others.

- ***Fixed cost structure*** Increases or decreases in sales have a large impact on profitability. There are a number of large fixed or semi-fixed cost components, which include salaries, indirect labor and benefits, facility costs, lease expense, and depreciation and amortization. It is not possible to vary these costs easily in the short term as volumes fluctuate. Thus changes in sales volumes can affect the usage and productivity of these cost components and can have a large effect on the Company's results of operations.

Overall Summary of Financial Results for the Year Ended December 31, 2008

For the year ended December 31, 2008 (2008), net sales were $554.7 million, down $71.5 million, or 11.4%, from net sales of $626.2 million reported for the year ended December 31, 2007 (2007). The sales decline was mitigated by the inclusion of sales of $23.3 million from POCO, which was acquired in August 2008, sales of $5.9 million related to the full-year inclusion of sales from the specialty coatings business acquired in August 2007, and a favorable foreign currency translation effect of $22.8 million. Excluding those mitigating factors, sales fell 19.7% in 2008 when compared to 2007.

Mainly reflecting the lower factory utilization associated with the year-over-year sales decrease and the $13.5 million incremental charge associated with the fair market value write-up of inventory acquired in the acquisition of POCO, the Company reported considerably lower gross profits and a reduced gross margin. The Company's gross margin in 2008 was 38.1% versus 42.5% in 2007. The Company's selling, general and administrative (SG&A) expenses decreased $16.4 million in 2008, the key element of the year-over-year reduction being the absence of incentive and profit sharing compensation.

The Company reported a loss from continuing operations of $515.9 million for 2008 compared to income of $46.4 million in 2007. The loss was substantially attributable to goodwill impairment charges of $473.8 million ($454.6 million, net of tax). The goodwill impairment charges, described in Note 2 to the Company's consolidated financial statements, have no impact on the Company's liquidity, cash flows from operating activities, or debt covenants.

As noted above, the Company acquired POCO on August 11, 2008 for cash consideration of $162.9 million. Based in Decatur, Texas, POCO is a leading provider of process-critical, graphite-based consumables and finished products used in a variety of markets. The acquisition was funded with a combination of existing cash balances and funds available from the Company's domestic credit facility.

During 2008, the Company's operating activities provided cash flow of $66.3 million. Cash and cash equivalents were $115.0 million at December 31, 2008 compared with $160.7 million at December 31, 2007. The decrease in cash mainly reflects the acquisition of POCO in the third quarter, partially offset by the cash provided by operating activities and an increase in long-term debt.

Critical Accounting Policies Management's discussion and analysis of financial condition and results of operations are based upon the Company's consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires the Company to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. At each balance sheet date, management evaluates its estimates, including, but not limited to, those related to accounts receivable, warranty and sales return obligations, inventories, long-lived assets, income taxes, business combinations and shared-based compensation. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions. The critical accounting policies affected most significantly by estimates, assumptions and judgments used in the preparation of the Company's consolidated financial statements are discussed below.

Net Sales The Company's net sales consist of revenue from sales of products net of trade discounts and allowances. The Company recognizes revenue upon shipment, primarily FOB shipping point, when evidence of an arrangement exists, contractual obligations have been satisfied, title and risk of loss have been transferred to the customer and collection of the resulting receivable is reasonably assured based upon historical collection results and regular credit evaluations. In most transactions, the Company has no obligations to its customers after the date products are shipped other than pursuant to warranty obligations. In the event that significant post-shipment obligations or uncertainties exist such as customer acceptance, revenue recognition is deferred as appropriate until such obligations are fulfilled or the uncertainties are resolved.

Accounts Receivable-Related Valuation Accounts The Company maintains allowances for doubtful accounts and for sales returns and allowances. Significant management judgments and estimates must be made and used in connection with establishing these valuation accounts. Material differences could result in the amount and timing of the Company's results of operations for any period if management made different judgments or utilized different estimates. In addition, actual results could be different from the Company's current estimates, possibly resulting in increased future charges to earnings.

The Company provides an allowance for doubtful accounts for all individual receivables judged to be unlikely for collection. For all other accounts receivable, the Company records an allowance for doubtful accounts based on a combination of factors. Specifically, management considers the age of receivable balances and historical bad debts write-off experience when determining its allowance for doubtful accounts. The Company's allowance for doubtful accounts was $1.3 million and $0.5 million at December 31, 2008 and 2007, respectively.

An allowance for sales returns and allowances is established based on historical and current trends in product returns. At December 31, 2008 and 2007, the Company's reserve for sales returns and allowances was $1.9 million and $2.0 million, respectively.

Inventory Valuation The Company uses certain estimates and judgments to properly value inventory. In general, the Company's inventories are recorded at the lower of cost or market value. Each quarter, the Company evaluates its ending inventories for obsolescence and excess quantities. This evaluation includes analyses of inventory levels, historical write-off trends, expected product lives, and sales levels by product. Inventories that are considered obsolete are written off or a full allowance is recorded. In addition, allowances are established for inventory quantities in excess of forecasted demand. Inventory allowances were $8.3 million and $8.9 million at December 31, 2008 and 2007, respectively.

The Company's inventories include materials and products subject to technological obsolescence, which are sold in highly competitive industries. If future demand or market conditions are less favorable than current conditions, additional inventory write-downs or allowances may be required and would be reflected in cost of sales in the period the revision is made.

Impairment of Goodwill and Long-Lived Assets The Company assesses the impairment of goodwill at least annually, or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The Company's annual impairment test is performed as of August 31. Factors considered important which could trigger an impairment review, and potentially an impairment charge, include the following:

- significant underperformance relative to historical or projected future operating results;
- significant changes in the manner of use of the acquired assets or the Company's overall business strategy;
- significant negative industry or economic trends; and
- significant decline in the Company's stock price for a sustained period, resulting in the Company's market capitalization being below its net book value.

In accordance with Statement of Financial Accounting Standards ("SFAS") No. 142, *Goodwill and Other Intangible Assets*, the Company tested for impairment of its goodwill in connection with its annual impairment test of goodwill as of August 31, 2008, and due to events and changes in circumstances through the end of 2008, the Company had an additional triggering event that indicated impairments had occurred.

Based on the results of the Company's assessment of goodwill for impairment, it was determined that the carrying value of the Company's net assets exceeded its estimated fair value. Therefore, the Company performed a second step of the impairment test to determine the implied fair value its goodwill. The Company performed the assessment of impairment of its goodwill twice during the year, once during the third quarter, when the Company wrote off $379.8 million of goodwill, and the second time at the end of the year, when the Company wrote off the remaining goodwill of $94.0 million. (See Note 2 to the consolidated financial statements.)

The Company routinely considers whether indicators of impairment of its property and equipment assets, particularly its molding equipment, and its intangible assets, are present. If such indicators are present, it is determined whether the sum of the estimated undiscounted cash flows attributable to the asset group in question is less than their carrying value. If less, an impairment loss is recognized based on the excess of the carrying amount of the asset group over its respective fair value. Fair value is determined by discounting estimated future cash flows, appraisals or other methods deemed appropriate. If the asset groups determined to be impaired are to be held and used, the Company recognizes an impairment charge to the extent the present value of anticipated net cash flows attributable to the asset group is less than the assets' carrying value. The fair value of the assets then becomes the assets' new carrying value, which is depreciated over the remaining estimated useful life of the assets.

In connection with the triggering events discussed above, during the third and fourth quarters of fiscal year 2008 the Company reviewed its long-lived assets and determined that none of its long-lived assets were impaired for its asset groups. The determination was based on reviewing estimated undiscounted cash flows for the Company's asset groups, which were greater than their carrying values. As required under U.S. generally accepted accounting principles, the SFAS No. 144 impairment analysis occurred before the SFAS No. 142 goodwill impairment assessment.

The evaluation of the recoverability of long-lived assets requires the Company to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to, the identification of the asset group at the lowest level of independent cash flows and the primary asset of the group; and long-range forecasts of revenue, reflecting management's assessment of general economic and industry conditions, operating income, depreciation and amortization and working capital requirements.

Due to the inherent uncertainty involved in making these estimates, particularly in the current economic environment and plan for a recovery, actual results could differ from those estimates. In addition, changes in the underlying assumptions would have a significant impact on the conclusion that an asset group's carrying value is recoverable, or the determination of any impairment charge if it was determined that the asset values were indeed impaired.

Due to the decline in the Company's market capitalization and the uncertain economic environment within the semiconductor industry, the Company will continue to monitor circumstances and events in future periods to determine whether additional asset impairment testing is warranted. It is not unlikely that in the future the Company may no longer be able to conclude that there is no impairment of its long-lived assets, nor can the Company provide assurance that material impairment charges of long-lived assets will not occur in future periods.

Income Taxes In the preparation of the Company's consolidated financial statements, management is required to estimate income taxes in each of the jurisdictions in which the Company operates. This process involves estimating actual current tax expense together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included in the Company's consolidated balance sheet.

The Company has significant amounts of deferred tax assets. Management reviews its deferred tax assets for recoverability on a quarterly basis and assesses the need for valuation allowances. Management considered the positive and negative evidence for the potential utilization of its deferred tax assets based upon an application of the principles of SFAS No. 109, *Accounting for Income Taxes,* and related accounting pronouncements. Management concluded that it is not more likely than not that the Company will realize certain deferred tax assets and provided an allowance for the portion of deferred tax assets management concluded will not be utilized. As a result, the Company recorded a deferred tax asset valuation allowance of $42.7 million, which is included in income tax expense for 2008.

In addition, the calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with management's expectations could have a material impact on the Company's financial condition and operating results.

Warranty Claims Accrual The Company records a liability for estimated warranty claims. The amount of the accrual is based on historical claims data by product group and other factors. Estimated claims could be materially different from actual results for a variety of reasons, including a change in product failure rates and service delivery costs incurred in correcting a product failure, manufacturing changes that could impact product quality, or as yet unrecognized defects in products sold. At December 31, 2008 and 2007, the Company's accrual for estimated future warranty costs was $1.1 million and $1.3 million, respectively.

Business Acquisitions The Company accounts for acquired businesses using the purchase method of accounting, which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. The judgments made in determining the estimated fair value assigned to each class of assets acquired and liabilities assumed, as well as asset lives, can materially impact net income. Accordingly, for significant acquisitions, the Company typically obtains assistance from independent valuation specialists.

There are several methods that can be used to determine the fair value of assets acquired and liabilities assumed. For intangible assets, the Company normally utilizes the "income method." This method starts with a forecast of all of the expected future net cash flows. These cash flows are then adjusted to present value by applying an appropriate discount rate that reflects the risk factors associated with the cash flow streams. Some of the more significant estimates and assumptions inherent in the income method or other methods include the projected amount and timing of future cash flows and the discount rate reflecting the risks inherent in the future cash flows.

Determining the useful life of an intangible asset also requires judgment. For example, different types of intangible assets will have different useful lives and certain assets may even be considered to have indefinite useful lives. All of these judgments and estimates can significantly impact net income.

Share-Based Compensation Statement of Financial Accounting Standards No. 123 (revised 2004*), Share-Based Payment*, (SFAS 123(R)) requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors based on estimated fair values. Under SFAS 123(R), the Company must estimate the value of employee stock option and restricted stock awards on the date of grant.

The fair value of restricted stock and restricted stock unit awards is valued based on the Company's stock price on the date of grant. The fair value of stock option awards is estimated on the date of grant using an option-pricing model affected by the Company's stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the expected stock price volatility over the term of the awards, risk-free interest rate and dividend yield assumptions, and actual and projected employee stock option exercise behaviors and forfeitures. Because share-based compensation expense recognized in the consolidated statement of operations is based on awards ultimately expected to vest, it has been recorded net of estimated forfeitures. SFAS 123(R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures are estimated based on historical experience.

If the above factors change, and the Company uses different assumptions in the application of SFAS 123(R) in future periods, the share-based compensation expense recorded under SFAS 123(R) may differ significantly from what was recorded in the current period.

Certain restricted stock and restricted stock unit awards involve stock to be issued upon the achievement of performance conditions (performance shares) under the Company's stock incentive plans. Such performance shares become available subject to time-based vesting conditions if, and to the extent that, financial performance criteria for the applicable fiscal year or multi-year period are achieved. Accordingly, the number of performance shares earned will vary based on the level of achievement of financial performance objectives for the applicable period. Until such time that the Company's performance can ultimately be determined, each quarter the Company estimates the number of performance shares more likely than not to be earned based on an evaluation of the probability of achieving the performance objectives. Such estimates are revised, if necessary, in subsequent periods when the underlying factors change the Company's evaluation of the probability of achieving the performance objectives. Accordingly, share-based compensation expense associated with performance shares recorded under SFAS 123(R) may differ significantly from the amount recorded in the current period.

Results of Operations

Year ended December 31, 2008 compared to year ended December 31, 2007

The following table sets forth the results of operations and the relationship between various components of operations, stated as a percent of net sales, for the years ended December 31, 2008 and 2007. The Company's historical financial data was derived from its consolidated financial statements and related notes included elsewhere in this annual report.

(Dollars in thousands)	2008		2007	
		% of net sales		% of net sales
Net sales	$ 554,699	100.0%	$626,238	100.0%
Cost of sales	343,184	61.9	360,001	57.5
Gross profit	211,515	38.1	266,237	42.5
Selling, general and administrative expenses	147,531	26.6	163,918	26.2
Engineering, research and development expenses	40,086	7.2	39,727	6.3
Amortization of intangible assets	19,585	3.5	18,874	3.0
Impairment of goodwill	473,799	85.4	—	—
Restructuring charges	10,423	1.9	—	—
Operating (loss) profit	(479,909)	(86.5)	43,718	7.0
Interest expense (income), net	1,018	0.2	(5,245)	(0.8)
Other expense (income), net	15,486	2.8	(7,656)	(1.2)
(Loss) income before income taxes and equity in earnings of affiliates	(496,413)	(89.5)	56,619	9.0
Income tax expense	19,201	3.5	10,356	1.7
Equity in net loss (earnings) of affiliates	283	0.1	(93)	(0.0)
Net (loss) income from continuing operations	$(515,897)	(93.0)	$ 46,356	7.4

Net sales For the year ended December 31, 2008 (2008), net sales were $554.7 million, down $71.5 million, or 11.4%, from sales for the year ended December 31, 2007 (2007). The sales decline was mitigated by the inclusion of sales of $23.3 million from POCO, which was acquired in August 2008, sales of $5.9 million related to the full-year inclusion of sales from the specialty coatings business acquired in August 2007, and a favorable foreign currency translation effect of $22.8 million. Excluding those mitigating factors, sales fell 19.7% in 2008 compared to 2007. The currency effect reflected the strengthening of most international currencies versus the U.S. dollar, most notably the Japanese yen and the Euro. On a geographic basis, total sales to North America were 29%, Asia Pacific 34%, Europe 16% and Japan 21% in 2008.

Demand drivers for the Company's business primarily consist of semiconductor fab utilization and production (unit-driven) as well as capital spending for new or upgraded semiconductor fabrication facilities (capital-driven). The Company analyzes sales of its products by these two key drivers. Both unit-driven and capital-driven sales in 2008 decreased as compared with 2007. Sales of unit-driven products represented 65% of sales and sales of capital-driven products represented 35% of total sales in 2008. This compares to a unit-driven to capital-driven ratio of 60:40 for 2007, indicating a decrease in demand of capital-driven sales within the industry over the past twelve months.

Sales of unit-driven products fell 5% in 2008. Excluding sales of POCO, sales of unit-driven products fell 11% in 2008. Unit-driven products have average lives of less than 18 months or need to be replaced based on usage levels. These products include liquid filters used in the photolithography, CMP and wet etch and clean processes, and in wafer shippers used to ship raw wafers, particularly at wafer sizes of 150mm and below, as well as in chip trays and data storage components used to ship 65mm and 95mm disk drives. Sales of shippers declined 13%, partially offset by the increase in sales of 300mm wafer shippers of 181%. In addition, sales of filtration products declined by 11%.

Year-over-year sales of capital-driven products decreased 22% in 2008. Capital-driven products include wafer process carriers, gas microcontamination control systems used in the deployment of advanced photolithography processes, fluid handling systems, including dispense pumps used in the photolithography process, and integrated liquid flow controllers used in various processes around the fab. Sales of control systems declined by 20% due to lower sales of dispense pumps, which fell by 48%. Sales of wafer transport products fell by 31%, such as 300mm FOUP products which declined by 39%. Sales of filtration products also fell by 16% primarily due to decreased sales of gas filtration products.

Gross profit Gross profit for 2008 decreased by $54.7 million, to $211.5 million, a decrease of 20.6% from $266.2 million for 2007. The gross margin rate for 2008 was 38.1% versus 42.5% for 2007.

The gross profit decline was primarily due to lower utilization of the Company's production facilities compared to the prior period, as well as the fair market value write-up of inventory discussed below. Production volumes were considerably lower in 2008. Despite significant increases in the price of oil and other commodities during much of 2008, price increases for the Company's raw materials and purchased components were relatively modest on a year-over-year basis. Charges to cost of sales associated with obsolescence and excess inventory quantities were $2.2 million lower in 2008 compared to 2007.

Gross margin in 2008 included a $13.5 million incremental charge associated with the fair market value write-up of inventory acquired in the acquisition of POCO. This incremental charge had a negative 2.4% impact on the overall gross margin for 2008. The inventory write-up was recorded as part of the purchase price allocation and is charged to cost of sales over inventory turns of the acquired inventory. The Company expects to record additional incremental charges of $4.1 million associated with the fair market value write-up of POCO inventory, most of which will be recorded in the first quarter of 2009.

Selling, general and administrative expenses Selling, general and administrative (SG&A) expenses of $147.5 million for 2008 decreased $16.4 million, or 10%, compared to $163.9 million in 2007. SG&A expenses, as a percent of net sales, increased to 26.6% from 26.2% a year earlier.

The year-over-year decrease in SG&A costs includes reductions in commissions and incentive compensation totaling $8.2 million; share-based compensation expense and pension expense of $6.2 million, and royalty expense of $3.5 million. In addition, costs of $2.6 million were incurred by the Company in 2007 in connection with the integration and realignment activities associated with the Mykrolis merger. Partially offsetting these decreases was an increase of $4.8 million in SG&A costs reflecting the effect of foreign currency translation.

Engineering, research and development expenses Engineering, research and development (ER&D) expenses rose by $0.4 million, or 0.9%, to $40.1 million in 2008 compared to $39.7 million in 2007. ER&D expenses as a percent of net sales were 7.2% compared to 6.3% a year ago.

Amortization of intangible assets Amortization of intangible assets was $19.6 million in 2008 compared to $18.9 million for 2007. The increase mainly reflects the additional amortization expenses related to the intangibles of POCO that were acquired in August 2008 and the full-year amortization of the intangibles of the specialty coatings business acquired in August 2007.

Impairment of Goodwill In accordance with Statement of Financial Accounting Standards ("SFAS") No. 142, *Goodwill and Other Intangible Assets*, the Company performed the assessment of impairment of its goodwill twice during the year, once in connection with its annual impairment test of goodwill as of August 31, 2008 and due to events and changes in circumstances through the end of the fourth quarter of fiscal 2008, the Company had a second trigger event that indicated impairments had occurred. In addition, the Company tested for impairment its long-lived assets (principally property, plant and equipment and intangibles) in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets.*

The factors deemed by management to have collectively constituted impairment triggering events included a significant decrease in the Company's market capitalization throughout 2008, to a level significantly below the recorded value of its consolidated net assets, and a significant decline in the current and forecasted business level. As a result of the impairment assessments, the Company recorded impairment charges of goodwill of $473.8 million in 2008. As of December 31, 2008, the Company had no remaining goodwill.

Restructuring charges In 2008, the Company initiated a global business restructuring of its sales and marketing function, manufacturing operations, and realignment of the global supply chain and other ancillary operational functions. Related to these cost reduction initiatives, the Company announced on November 4, 2008 that it will close the larger of its two manufacturing facilities in Chaska, Minnesota and will transfer production to its other existing facilities. Associated with these changes, the Company recorded $10.4 million in restructuring charges in 2008, consisting mainly of employee severance costs.

Interest expense (income), net Net interest expense was $1.0 million in 2008 compared to interest income of $5.2 million in 2007. The decrease reflects lower average invested balances compared to a year ago and an increase in the Company's short-term borrowings and long-term debt in 2008.

Other expense (income) Other expense was $15.5 million in 2008 compared to other income of $7.7 million in 2007. Other expense in 2008 includes impairment losses on equity investments of $11.1 million and foreign currency transaction losses of $4.4 million. Other income in 2007 includes foreign currency transaction gains of $1.2 million and a pre-tax gain of $6.1 million on the sale of the Company's interest in a privately held equity investment accounted for using the cost method. Proceeds from the sale totaled $6.6 million.

Income tax expense The Company recorded income tax expense of $19.2 million in 2008, compared to income tax expense of $10.4 million in 2007. The effective tax rate was (3.9)% in 2008 compared with a 18.3% rate in 2007.

The effective tax rate for 2008 is principally attributable to two factors. The Company recorded a $473.8 million goodwill impairment charge in 2008. Most of the Company's goodwill impairment charge is not deductible for income tax purposes. Accordingly, the Company recognized a tax benefit of only $19.2 million in connection with the impairment charge.

Also during 2008, the Company recorded a $42.7 million valuation allowance against its deferred tax assets consisting primarily of net operating loss carryovers, general business carryovers and foreign tax credit carryforwards, $0.6 million of which related to discontinued operations. The Company carried no valuation allowance against its deferred tax assets at December 31, 2007. As a result of the recent general economic and industry downturn, and its impact on the Company's future outlook, management has reviewed its deferred tax assets and concluded that the uncertainties related to the realization of its assets, have become unfavorable. Management considered the positive and negative evidence for the potential utilization of its deferred tax assets based upon an application of the principles of SFAS No.109 and related accounting pronouncements. Management concluded that it is not more likely than not that the Company will realize certain deferred tax assets and thus provided an allowance for the portion of deferred tax assets management concluded will not be utilized.

The Company's 2007 tax rate was lower than the U.S. statutory rate for a number of reasons. In the fourth quarter of 2007, the Company's Japanese subsidiary declared a dividend of 6.8 billon yen (approximately U.S. $60 million) and also loaned 4.6 billion yen (approximately U.S. $40 million) to the Company. The resulting recharacterization of $100 million of the Japanese subsidiary's accumulated undistributed earnings resulted in a fourth quarter tax benefit of $9.4 million, net of state income tax expense. The Company also benefited from the tax holiday in Malaysia in 2007 in the amount of $2.1 million.

Discontinued operations

The Company's businesses classified as discontinued operations recorded a net loss of $1.1 million in 2008. The Company completed the sale of its cleaning equipment business, classified as a discontinued operation, for proceeds of $0.7 million in April 2008.

The Company's discontinued operations recorded a net loss of $2.0 million for 2007. These results included an operating loss of $1.4 million, a pre-tax impairment charge of $2.6 million recorded in connection with the write-down of long-lived assets to fair value less cost to sell, and a tax benefit of $0.7 million related to a reduction in the Company's deferred tax asset valuation allowance, resulting from the utilization of a capital loss carryforward to offset a portion of the capital gain on the sale of an equity investment.

Net (loss) income The Company recorded a net loss of $517.0 million, or $4.59 per share, in 2008, compared to net income of $44.4 million, or $0.36 per diluted share, in 2007. The Company's loss from continuing operations for 2008 was $515.9 million, or $4.58 per share, compared to income from continuing operations of $46.4 million, or $0.37 per diluted share, in the prior year.

Year ended December 31, 2007 compared to year ended December 31, 2006

The following table sets forth the results of operations and the relationship between various components of operations, stated as a percent of net sales, for the years ended December 31, 2007 and 2006. The Company's historical financial data was derived from its consolidated financial statements and related notes included elsewhere in this annual report.

(Dollars in thousands)	2007		2006	
		% of net sales		% of net sales
Net sales	$626,238	100.0%	$672,882	100.0%
Cost of sales	360,001	57.5	367,804	54.7
Gross profit	266,237	42.5	305,078	45.3
Selling, general and administrative expenses	163,918	26.2	170,702	25.4
Engineering, research and development expenses	39,727	6.3	38,074	5.7
Amortization of intangible assets	18,874	3.0	17,609	2.6
Operating profit	43,718	7.0	78,693	11.7
Interest income, net	(5,245)	(0.8)	(9,205)	(1.4)
Other income, net	(7,656)	(1.2)	(1,658)	(0.2)
Income before income taxes and equity in earnings of affiliates	56,619	9.0	89,556	13.3
Income tax expense	10,356	1.7	26,936	4.0
Equity in net earnings of affiliates	(93)	(0.0)	(531)	(0.1)
Net income from continuing operations	$ 46,356	7.4	$ 63,151	9.4

Net sales For the year ended December 31, 2007 (2007), net sales were $626.2 million, down $46.6 million, or 6.9%, from sales for the year ended December 31, 2006 (2006). Net sales for 2007 included favorable foreign currency translation effects of $8.9 million. This reflected the strengthening of certain international currencies versus the U.S. dollar, most notably the Euro. On a geographic basis, total sales to North America were 26%, Asia Pacific 36%, Europe 15% and Japan 23% in 2007. Sales from products of the high-purity semiconductor coatings business acquired in the third quarter totaled $6.2 million in 2007.

Demand drivers for the Company's business primarily consist of semiconductor fab utilization and production (unit-driven) as well as capital spending for new or upgraded semiconductor fabrication facilities (capital-driven). The Company analyzes sales of its products by these two key drivers. Both unit-driven and capital-driven sales in 2007 decreased as compared with 2006. Sales of unit-driven products represented 60% of sales and sales of capital-driven products represented 40% of total sales in 2007. This compares to a unit-driven to capital-driven ratio of 59:41 for 2006.

Sales of unit-driven products fell 6% in 2007 as semiconductor fab utilization rates were relatively flat. Unit-driven products have average lives of less than 18 months or need to be replaced based on usage levels. These products include liquid filters used in the photolithography, CMP and wet etch and clean processes, and in wafer shippers used to ship raw wafers, particularly at wafer sizes of 150mm and below, as well as in chip trays and data storage components used to ship 65mm and 95mm disk drives. Sales of wafer shippers declined 11%, while sales of disk shippers fell 17%, primarily due to lower sales of 65mm shippers.

Year-over-year sales of capital-driven products decreased 11% in 2007. Capital-driven products include wafer process carriers, gas microcontamination control systems used in the deployment of advanced photolithography processes, fluid handling systems, including dispense pumps used in the photolithography process, and integrated liquid flow controllers used in various processes around the fab. Sales of liquid systems also declined in the latter half of 2007, reflecting the general slowing in the industry. Wafer transport products, such as 300mm FOUP products, also fell, particularly at some North American customers. Sales of gas microcontamination control products fell 5% after reaching peak levels in 2006.

Gross profit Gross profit for 2007 decreased by $38.8 million, to $266.2 million, a decrease of 12.7% from $305.1 million for 2006. The gross margin rate for 2007 was 42.5% versus 45.3% for 2006.

The gross profit decline was primarily due to the lower utilization of the Company's production facilities compared to the prior period. Production volumes were considerably lower in 2007 as the Company sold inventory on hand to satisfy customer demand, particularly in the first half of the year. Prices for raw materials were relatively stable on a year-over-year basis.

Gross margin for 2007 also was affected by $2.2 million in transition costs such as travel, sampling and customer qualification costs related to the transfer of four product lines from U.S. facilities to the Company's facility in Kulim, Malaysia. Costs of $2.9 million associated with the consolidation or closure of manufacturing facilities in the U.S. and Singapore also reduced gross profit in 2007.

Gross margin in 2007 included a $0.8 million cost of sales charge associated with the fair market value write-up of inventory acquired in the purchase of the assets of the high-purity semiconductor coatings business acquired in the third quarter of 2007. The inventory write-up was recorded as part of the purchase price allocation and is charged to cost of sales over inventory turns of the acquired inventory.

Gross profit in 2006 was reduced by costs of $2.8 million incurred in connection with the consolidation of manufacturing facilities in the U.S., Germany and Japan. Offsetting these charges to 2006 gross profit was a gain of $0.7 million on the sale of a facility recognized during the second quarter of 2006. Gross profit in the third and fourth quarters of 2006 was lower than the strong levels achieved earlier in the year due to manufacturing inefficiencies experienced at a North American plant in the third quarter and expenses incurred in the fourth quarter in connection with a comprehensive worldwide review of the Company's manufacturing operations to identify and resolve manufacturing inefficiencies.

Selling, general and administrative expenses Selling, general and administrative (SG&A) expenses of $163.9 million for 2007 decreased $6.8 million, or 4.0%, compared to $170.7 million in 2006. SG&A expenses, as a percent of net sales, increased to 26.2% from 25.4% a year earlier.

The year-over-year decrease in SG&A costs reflects the lower SG&A expenses incurred by the Company in connection with the integration activities associated with the Mykrolis merger and other realignment activities, as well as the benefit of the consolidation of various sales, marketing and other corporate functions during 2006. Costs of $2.6 million were incurred by the Company in 2007 in connection with the integration and realignment activities associated with the Mykrolis merger, compared to $12.1 million in 2006. The costs included in this category generally relate to expenses incurred to integrate Mykrolis' operations and systems into the Company's pre-existing operations and systems. These costs include, but are not limited to, the integration of information systems, employee benefits and compensation, accounting/finance, tax, treasury, risk management, compliance, administrative services, sales and marketing and other functions and include severance and retention costs. The year-over-year decrease in SG&A expenses also includes a decline in incremental share-based compensation expense of $3.0 million, offset by an increase in professional fees of $2.2 million.

Engineering, research and development expenses Engineering, research and development (ER&D) expenses rose by $1.7 million, or 4.3%, to $39.7 million in 2007 compared to $38.1 million in 2006. ER&D expenses as a percent of net sales were 6.3% compared to 5.7% in 2006. The increase reflected higher product sampling costs as the Company continued to focus on the support of current product lines and the development of new products and manufacturing technologies.

Amortization of intangible assets Amortization of intangible assets was $18.9 million in 2007 compared to $17.6 million in 2006. The increase mainly reflects the additional amortization expenses related to the intangibles of the specialty coatings business acquired in August 2007.

Interest income, net Net interest income was $5.2 million in 2007 compared to $9.2 million in 2006. The decrease reflects lower average invested balances compared to the prior year, primarily related to the Company's use of cash to finance the repurchase of its common shares during the second quarter of 2007.

Other income Other income in 2007 includes a pre-tax gain of $6.1 million on the sale of the Company's interest in a privately held equity investment accounted for using the cost method. Proceeds from the sale totaled $6.6 million.

Income tax expense The Company recorded income tax expense of $10.4 million in 2007, compared to income tax expense of $26.9 million in 2006. The effective tax rate was 18.3% in 2007 compared with a 30.1% rate a year earlier.

The Company's 2007 tax rate was lower than statutory rates for a number of reasons. In the fourth quarter of 2007, the Company's Japanese subsidiary declared a dividend of 6.8 billon yen (approximately U.S. $60 million) and also loaned 4.6 billion yen (approximately U.S. $40 million) to the Company. The resulting recharacterization of $100 million of the Japanese subsidiary's accumulated undistributed earnings resulted in a fourth quarter tax benefit of $9.4 million, net of state income tax expense.

The Company also benefited from a tax holiday in Malaysia whereby, as a result of employment commitments, research and development expenditures and capital investments made by the Company, income from certain manufacturing activities in Malaysia was exempt from tax with tax benefits in 2007 in the amount of $2.1 million. In 2006, the Company's benefit from the tax holiday was $2.8 million. The 2007 effective tax rate was also lower due to a corporate income tax refund of $0.8 million resulting from new legislation in Germany and a $0.9 million favorable adjustment recorded to recognize the reconciliation of the Company's 2006 federal tax return and tax accounts. Partially offsetting these reductions was an increase to the Company's tax contingency reserves.

Discontinued operations

The Company's businesses classified as discontinued operations recorded losses of $2.0 million, net of taxes, in 2007. These results included an operating loss of $1.4 million, a pre-tax impairment charge of $2.6 million recorded in connection with the write-down of long-lived assets to fair value less cost to sell, and a tax benefit of $0.7 million related to a reduction in the Company's deferred tax asset valuation allowance, resulting from the utilization of a capital loss carryforward to offset a portion of the capital gain on the sale of an equity investment.

The Company's discontinued operations recorded income of $0.3 million net of taxes for 2006. The after-tax earnings of discontinued operations in 2006 included a tax benefit of $1.6 million associated with a decrease in the Company's deferred tax asset valuation allowance described above. The change in the valuation allowance resulted from the settlement of negotiations regarding the terms of sale of a discontinued operation which established the characterization of certain gains and losses.

Net income The Company recorded net income of $44.4 million, or $0.36 per diluted share, in 2007, compared to net income of $63.5 million, or $0.46 per diluted share, in 2006. Income from continuing operations for 2007 was $46.4 million, or $0.37 per diluted share, compared to income from continuing operations of $63.2 million, or $0.46 per diluted share, in the prior year.

Quarterly Results of Operations

The following table presents selected data from the Company's consolidated statements of operations for the eight quarters ended December 31, 2008. This unaudited information has been prepared on the same basis as the audited consolidated financial statements appearing elsewhere in this annual report. All adjustments that management considers necessary for the fair presentation of the unaudited information have been included in the quarters presented.

QUARTERLY STATEMENTS OF OPERATIONS DATA (UNAUDITED)

	2007				2008			
(In thousands)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Net sales	$159,571	$153,508	$151,811	$161,348	$148,227	$147,947	$ 145,789	$ 112,736
Gross profit	68,508	65,494	65,510	66,725	63,988	59,887	55,398	32,242
Selling, general and administrative expenses	41,445	39,830	39,267	43,376	43,322	37,105	35,373	31,731
Engineering, research and development expenses	10,534	9,679	9,409	10,105	10,501	10,362	10,284	8,939
Amortization of intangible assets	4,499	4,487	4,716	5,172	5,087	4,552	4,858	5,088
Impairment of goodwill	—	—	—	—	—	—	379,810	93,989
Restructuring charges	—	—	—	—	—	—	3,332	7,091
Operating profit (loss)	12,030	11,498	12,118	8,072	5,078	7,868	(378,259)	(114,596)
Net income (loss)	10,383	14,777	8,417	10,782	2,865	4,933	(393,002)	(131,798)

(Percent of net sales)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Net sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gross profit	42.9	42.7	43.2	41.4	43.2	40.5	38.0	28.6
Selling, general and administrative expenses	26.0	25.9	25.9	26.9	29.2	25.1	24.3	28.1
Engineering, research and development expenses	6.6	6.3	6.2	6.3	7.1	7.0	7.1	7.9
Amortization of intangibles	2.8	2.9	3.1	3.2	3.4	3.1	3.3	4.5
Impairment of goodwill	—	—	—	—	—	—	260.5	83.4
Restructuring charges	—	—	—	—	—	—	2.3	6.3
Operating profit (loss)	7.5	7.5	8.0	5.0	3.4	5.3	(259.5)	(101.6)
Net income (loss)	6.5	9.6	5.5	6.7	1.9	3.3	(269.6)	(116.9)

Our quarterly results of operations have been, and will likely continue to be, subject to significant fluctuations due to a variety of factors, a number of which are beyond the Company's control.

Reflecting the downturn in the semiconductor industry and general economic conditions, the Company's net sales declined 30% in the fourth quarter of 2008 compared to the comparable 2007 period, resulting in a significantly reduced gross profit for the quarter. In the third and fourth quarters of 2008, the Company's results included goodwill impairment losses of $379.8 million and $94.0 million, respectively. The third and fourth quarter of 2008 also included incremental charges of $5.7 million and $7.8 million, respectively, associated with the write-up of inventory to fair value in connection with acquisition of POCO in August 2008. These factors contributed to significant net losses for the Company for those quarters.

Liquidity and Capital Resources

The Company has historically financed its operations and capital requirements through cash flow from operating activities, long-term loans, lease financing and borrowings under domestic and international short-term lines of credit.

Operating activities Net cash flow provided by operating activities totaled $66.3 million for the year ended December 31, 2008 (2008). Cash flow was provided by the Company's operations, net of various non-cash charges, including impairment of goodwill of $473.8 million, depreciation and amortization of $46.3 million, share-based compensation expense of $7.0 million and a $13.5 million incremental charge associated with the fair market value write-up of inventory acquired in the acquisition of POCO.

Working capital stood at $233.8 million at December 31, 2008, including $115.0 million in cash and cash equivalents, down from $256.9 million as of December 31, 2007, including $160.7 million in cash and cash equivalents.

During 2008, accounts receivable, net of foreign currency translation adjustments, decreased by $53.4 million, reflecting lower sales and an improvement in the Company's days sales outstanding, which were 57 days at year end compared to 63 days at the beginning of the year. Inventories decreased by $1.9 million from December 31, 2008, net of foreign currency translation adjustments and the addition of inventory acquired with the POCO acquisition.

Accounts payable and accrued expenses were $35.5 million lower than reported at December 31, 2007. This decrease mainly reflects the payment of 2007 incentive compensation in 2008, with no incentive compensation accrued as of December 31, 2008. Income taxes payable and refundable income taxes decreased by $18.9 million in 2008, with the Company making payments net of refunds of $23.3 million.

Investing activities Cash flow used in investing activities totaled $199.9 million in 2008. The purchase price for the acquisition of POCO in August 2008 totaled $162.9 million. In 2008, the Company invested $11.0 million to purchase equity interests in three privately held technology companies. Expenditures for acquisition of property and equipment totaled $27.0 million and primarily consisted of additions of manufacturing equipment, tooling and information systems. The Company expects total capital expenditures in 2009 to be approximately $16 million.

Financing activities Net cash provided by financing activities totaled $82.7 million during 2008. The Company made payments of $64.7 million on outstanding borrowings and received proceeds of $173.8 million from new borrowings.

During 2008, the Company purchased 4.0 million shares of its common stock at a total cost of $28.9 million under a Rule 10b-5-1 trading plan authorized by the Company's Board of Directors. The Company received proceeds of $3.1 million in connection with common shares issued under the Company's stock option and employee stock purchase plans.

On February 15, 2008, the Company entered into a credit agreement with Wells Fargo Bank, National Association, as agent, and certain other banks. The agreement provides for a $230 million revolving credit facility (the Facility) for a period of five years with an uncommitted option to expand the Facility by up to $20 million provided that no default or event of default has occurred or is continuing at such time. The Facility replaced the Company's credit agreement, executed in June 2007 between the Company and Wells Fargo Bank, National Association, as agent, and certain other banks. The Company generally may elect that the loans comprising each borrowing bear interest at a rate per annum equal to (a) the Base Rate equal to the higher of the Prime Rate then in effect and the Federal Funds Rate then in effect, plus 0.50% or (b) a LIBOR rate plus a LIBOR Margin ranging from 1.00% to 1.50% depending on leverage. As of December 31, 2008, $139.0 million was outstanding under the Facility.

At December 31, 2008, the Company's shareholders' equity was $336.2 million, down 61% from $852.3 million at the beginning of the period. The decrease is primarily a result of the Company's fiscal 2008 net loss of $517.0 million.

As of December 31, 2008, the Company's sources of available funds comprised $115.0 million in cash and cash equivalents, as well as funds available under various credit facilities. Entegris has a credit agreement with one domestic commercial bank with available borrowing capacity of $90.1 million, with $139.0 million borrowings outstanding as of December 31, 2008. The Company also has a line of credit with three international banks that provide for borrowings of currencies for two of the Company's overseas subsidiaries, equivalent to an aggregate of approximately $19.6 million. There were no borrowings outstanding on these three international lines of credit at December 31, 2008.

As described in greater detail in Note 23 to its consolidated financial statements, the Company executed an amended domestic credit agreement in February 2009, which expires in November 2011, with a total borrowing capacity of $150 million.

As described in Note 23 to the Company's consolidated financial statements, the Company executed a new $150 million domestic credit agreement in February 2009, which expires in November 2011, with initial borrowing capacity of $139 million, with an additional $11 million available at the discretion of the majority of the Company's banks.

A global credit market crisis has created a very difficult business environment. These conditions have generally worsened since October 2008. The Company's operating performance, as well as its liquidity position, has been and continues to be negatively affected by these economic conditions, many of which are beyond its control. The Company does not believe it is likely that these adverse economic conditions, and their effect on the semiconductor industry, will improve significantly in the near term. However, the effect of current global economic environment on the semiconductor industry requires that the Company maintain its near-term liquidity support.

The amended credit facility requires that the Company meet various financial covenants. If the Company's future financial performance fails to meet these financial covenants, then its lenders may take control of the Company's cash receipts from the collection of its receivables as well as certain other assets. In this event, the Company's ability to conduct business could be severely impeded as there can be no assurance that funds adequate in amounts and timing will be available to meet the Company's liquidity requirements.

The Company plans to manage its business during this time through a series of operating measures designed to reduce expenditures and to generate incremental cash flow through asset management initiatives. If the economic environment does not improve in 2009, the Company's planned and initiated actions may not be sufficient and could lead to possibly failing the financial debt covenants required under the amended credit facility.

The Company believes that its cash and cash equivalents, cash flow from operations and funds available under its amended domestic credit facility will be sufficient to meet its working capital and investment requirements for the next 12 months. If available liquidity is not sufficient to meet the Company's operating and debt service obligations as they come due, management's plans include reducing expenditures as necessary, or pursuing alternative arrangements through additional equity or debt financing, in order to meet the Company's cash requirements through 2009. However, there can be no assurance that any such financing would be available on commercially acceptable terms.

The following table summarizes the maturities of the Company's significant financial obligations as of December 31, 2008:

(In thousands)	Total	2009	2010	2011	2012	2013	Thereafter
	Maturity by fiscal year						
Contractual obligations related to off-balance sheet arrangements:							
Operating leases	$ 26,291	$ 8,574	$ 6,522	$ 3,380	$ 3,001	$ 2,752	$ 2,062
Foreign currency contracts	280	280	—	—	—	—	—
Total	$ 26,571	$ 8,854	$ 6,522	$ 3,380	$ 3,001	$ 2,752	$ 2,062
Contractual obligations reflected in the balance sheet:							
Long-term debt	$ 163,682	$ 13,166	$ 11,516	$ —	$ —	139,000	$ —
Pension obligations	$ 17,183	624	920	589	472	549	14,029
Total	$ 180,865	$ 13,790	$ 12,436	$ 589	$ 472	$ 139,549	$ 14,029

As described in Note 23 to the Company's consolidated financial statements, the Company amended its existing domestic credit agreement. The amended credit agreement has a maturity date of November 2011.

The Company adopted FIN 48, *Accounting for Uncertainty in Income Taxes-an Interpretation of FASB Statement No. 109* as of January 1, 2007. The Company had $5.5 million and $16.6 million of total gross unrecognized tax benefits at December 31, 2008 and 2007, respectively. The timing of any payments which could result from these unrecognized tax benefits will depend on a number of factors. Accordingly, the Company cannot make reasonably reliable estimates of the amount and period of potential cash settlements, if any, with taxing authorities.

Quantitative and Qualitative Disclosure About Market Risks

Entegris' principal financial market risks are sensitivities to interest rates and foreign currency exchange rates. The Company's interest-bearing cash equivalents and certain long-term debt are subject to interest rate fluctuations. Most of the Company's long-term debt at December 31, 2008 carries floating rates of interest. The Company's cash equivalents are instruments with maturities of three months or less. A 100 basis point change in interest rates would potentially increase or decrease annual net income by approximately $0.7 million annually.

The cash flows and earnings of the Company's foreign-based operations are subject to fluctuations in foreign exchange rates. The Company occasionally uses derivative financial instruments to manage the foreign currency exchange rate risks associated with its foreign-based operations. At December 31, 2008, the Company was party to forward contracts to deliver Euros with notional values of approximately $1.8 million. A hypothetical 10% change in the foreign currency exchange rates would potentially result in exchange gains or losses that could increase or decrease net income by approximately $0.3 million.

On February 6, 2007, the Company entered into a 10-month Japanese yen-based cross-currency interest rate swap, with aggregate notional principal amounts of 2.4 billion Japanese yen and $20 million that matured on November 30, 2007. This swap effectively hedged a portion of the Company's net investment in its Japanese subsidiary. During the term of this transaction, the Company remitted to, and received from, its counterparty interest payments based on rates that were reset quarterly equal to three-month Japanese LIBOR and three-month U.S. LIBOR rates, respectively. The Company designated this hedging instrument as a hedge of a portion of the net investment in its Japanese subsidiary, and used the spot rate method of accounting to value changes of the hedging instrument attributable to currency rate fluctuations. Accordingly, a $2.1 million adjustment in the fair market value of the hedging instrument related to changes in the spot rate was recorded as a charge to "Foreign currency translation" within accumulated other comprehensive loss in shareholders' equity in 2007 to offset changes in a portion of the yen-denominated net investment in the Company's Japanese subsidiary and will remain there until the net investment is disposed. The Company recorded $0.7 million in net interest income in 2007 in connection with the cross-currency interest rate swap.

Impact of Inflation

The Company's consolidated financial statements are prepared on a historical cost basis, which does not completely account for the effects of inflation. Material and labor expenses are the Company's primary costs. The cost of materials, including polymers and stainless steel, was generally flat in 2008 compared to 2007 due to increased production capacity of suppliers, despite higher oil prices. Entegris expects the cost of these materials to increase slightly in 2009. Higher oil prices contributed to higher freight costs in 2008. Despite the fall in oil prices in recent months, freight costs remain above the levels experienced before last year's increase in oil prices. Labor costs, including taxes and fringe benefits rose in 2008, but slightly lower total costs can be reasonably anticipated for 2009 due to the Company's actions to align spending with expected sales volumes. The Company's products are sold under contractual arrangements with its large customers and at current market prices to other customers. Consequently, the Company can adjust its selling prices, to the extent allowed by competition and contractual arrangements, to reflect cost increases caused by inflation. However, many of these cost increases may not be recoverable.

FACTORS AND UNCERTAINTIES THAT MAY AFFECT FUTURE RESULTS

The matters discussed in this Annual Report on Form 10-K include forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include but are not limited to statements about:

- our strategy;
- our revenues;
- sufficiency of our cash resources;
- product development;
- our research and development and other expenses; and
- our operations and legal risks.

Discussions containing these forward-looking statements may be found throughout this report including in the items entitled "Business" (Item 1), "Risk Factors" (Item 1A),and "Management's Discussion and Analysis of Financial Condition and Results of Operations" (Item 7), as well as any amendments thereto reflected in subsequent filings with the SEC. These statements are based on current management expectations and are subject to substantial risks and uncertainties which could cause actual results to differ materially from the results expressed in, or implied by, these forward-looking statements. When used herein or in such statements, the words "anticipate", "believe", "estimate", "expect", "may", "will", "should" or the negative thereof and similar expressions as they relate to Entegris or its management are intended to identify such forward-looking statements. We undertake no obligation to publicly release any revisions to the forward-looking statements or reflect events or circumstances after the date of this Annual Report on Form 10-K except as required by law.

Item 7a. Quantitative and Qualitative Disclosures about Market Risk

The information required by this item can be found under the subcaption "Quantitative and Qualitative Disclosure About Market Risks" of "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7.

Item 8. Financial Statements and Supplementary Data.

The information called for by this item is set forth in the Consolidated Financial Statements covered by the Report of Independent Registered Public Accounting Firm at the end of this report.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

This item is not applicable.

Item 9A. Controls and Procedures.

(a) EVALUATION OF DISCLOURE CONTROLS AND PROCEDURES

Management evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the Exchange Act)), as of December 31, 2008, the end of the fiscal period covered by this report on Form 10-K. The Securities and Exchange Commission, or SEC, rules define the term "disclosure controls and procedures" to mean a company's controls and other procedures that are designed to ensure that information required to be disclosed in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time period specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in its reports filed under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Based on the evaluation of the effectiveness of our disclosure controls and procedures by our management team with the participation of the Chief Executive Officer and the Chief Financial Officer, our Chief Executive Officer and our Chief Financial Officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms.

(b) MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining an adequate system of internal control over financial reporting of the Company. This system of internal financial reporting controls is designed to provide reasonable assurance that assets are safeguarded and transactions are properly recorded and executed in accordance with management's authorization. The design, monitoring and revision of the system of internal financial reporting controls involves, among other things, management's judgments with respect to the relative cost and expected benefits of specific control measures. The effectiveness of the control system is supported by the selection, retention and training of qualified personnel and an organizational structure that provides an appropriate division of responsibility and formalized procedures. The system of internal accounting controls is periodically reviewed and modified in response to changing conditions. Designated Company employees regularly monitor the adequacy and effectiveness of internal accounting controls.

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changes in conditions, the effectiveness of internal controls over financial reporting may vary over time. Our system contains control-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

Management conducted an evaluation of the effectiveness of the system of internal control over financial reporting based on the framework in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation, management concluded that the Company's system of internal control over financial reporting was effective as of December 31, 2008.

Effective August 11, 2008 the Company acquired Poco Graphite, Inc. In the conduct of its assessment of the effectiveness of the Company's internal control over financial reporting for the year ended December 31, 2008, management has excluded total assets of $113 million and net sales of $23 million related to Poco Graphite, Inc. that are included in the consolidated financial statements of Entegris, Inc. and subsidiaries as of and for the year ended December 31, 2008.

(C) Changes in Internal Control Over Financial Reporting

Management's actions to remediate material weaknesses

As previously reported in the Company's Annual Report on Form 10-K, as filed with the Securities & Exchange Commission on March 3, 2008, in connection with the Company's assessment of the effectiveness of its internal control over financial reporting at the end of its last fiscal year, management identified a material weakness in the internal control over its financial reporting as of December 31, 2007 related to ineffective controls over the accounting for income taxes. Specifically, the Company did not have sufficient tax personnel with adequate expertise to effectively monitor and review the process to prepare the income tax provision.

In addition, as previously reported in the Company's Quarterly Report on Form 10-Q/A for the quarter ended March 29, 2008 as filed with the Securities & Exchange Commission on August 7, 2008, in connection with the Company's assessment of the effectiveness of its internal control over financial reporting at the end of its quarter ended March 29, 2008, management identified a material weakness in the internal control over financial reporting as of March 29, 2008 related to the combined effect of two significant deficiencies in the Company's accounting for intercompany profit elimination and recording of inventory variances.

Through the course of fiscal 2008, management, with oversight from the Company's Audit & Finance Committee, worked to address these material weaknesses and in doing so effected significant changes in internal control such that both these material weaknesses were deemed by management to be remediated as of December 31, 2008.

Specifically, the Company implemented the following remediation steps to address the material weakness in it its internal controls relating to income taxes noted above:

- Hired and obtained a significant control benefit from additional experienced tax professionals with public accounting and/or public company income tax experience; and
- Continued to improve the Company's review processes and procedures over the preparation, reconciliation and analysis of its income tax provision and income tax-related accounts.

The Company also implemented the following remediation steps to address the significant deficiencies in its internal controls relating to intercompany profit elimination and the recording of inventory variances noted above:

- Improved the Company's procedures over the calculation, reconciliation, and analysis of its intercompany profit elimination; and
- Enhanced procedures and conducted significant training with accounting personnel concerning journal entry preparation, documentation and review.

As of December 31, 2008 management, through its testing of internal controls, has concluded these new procedures have effectively remediated the material weakness and significant deficiencies.

Other than the changes mentioned above to remediate the material weaknesses, there was no change in the Company's internal control over financial reporting during the most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, internal controls over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information called for by this item with respect to registrant's directors, including information relating to the independence of certain directors, identification of the audit committee and the audit committee financial expert, and with respect to corporate governance is set forth under the caption "Election of Directors" and "Corporate Governance", respectively, in the Company's definitive Proxy Statement for the Entegris, Inc. Annual Meeting of Stockholders to be held on May 6, 2009, and to be filed with the Securities and Exchange Commission on or about April 3, 2009, which information is hereby incorporated herein by reference.

The information called for by this item with respect to registrant's compliance with Section 16(a) of the Securities Exchange Act of 1934, as amended, is set forth under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's definitive Proxy Statement for the Entegris, Inc. Annual Meeting of Stockholders to be held on May 6, 2009, and to be filed with the Securities and Exchange Commission on or about April 3, 2009, which information is hereby incorporated herein by reference.

Information called for by this item with respect to registrant's executive officers is set forth under "Executive Officers" in Item 1 of this report.

The Company has adopted a code of ethics, the Entegris, Inc. Code of Business Ethics, which applies to all employees of the registrant, including the registrant's Chief Executive Officer, Chief Financial Officer and Chief Accounting Officer. A copy of the Entegris, Inc. Code of Business Ethics is posted on our website at http://www.Entegris.com, under "Investor Relations—Governance". The Entegris, Inc. Code of Business Ethics is available in print to any stockholder that requests a copy. A copy of the Entegris, Inc. Code of Business Ethics may be obtained by contacting Peter W. Walcott, the Company's Senior Vice President & General Counsel, at the Company's headquarters. The Company intends to comply with the requirements of Item 10 of Form 8-K with respect to any waiver of the provisions of the Entegris, Inc. Code of Business Ethics applicable to the registrant's Chief Executive Officer, Chief Financial Officer or Chief Accounting Officer by posting notice of any such waiver at the same location on our website.

Item 11. Executive Compensation.

The information called for by this item is set forth under the caption "COMPENSATION OF EXECUTIVE OFFICERS", "MANAGEMENT DEVELOPMENT & COMPENSATION COMMITTEE" and "REPORT OF THE MANAGEMENT DEVELOPMENT & COMPENSATION COMMITTEE", respectively, in the Company's definitive Proxy Statement for the Entegris, Inc. Annual Meeting of Stockholders to be held on May 6, 2009, and to be filed with the Securities and Exchange Commission on or about April 3, 2009, which information is hereby incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The following information is provided as of December 31, 2008 with respect to our compensation plans under which equity securities are authorized for issuance. The only equity securities currently authorized for issuance under our compensation plans are common stock for awards or options to acquire our common stock.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders[1]	6,316,164	$ 8.28	9,814,167[3]
Equity compensation plans not approved by security holders[2]	372,556	$ 8.65	1,233,667[4]
Total	6,688,720	$ 8.30	11,047,834

(1) Includes shares of Entegris, Inc. common stock available for award or to support option grants under the Entegris, Inc. 2001 Equity Incentive Plan, the Entegris, Inc. 1999 Long Term Incentive and Stock Option Plan, and the Entegris, Inc Outside Directors' Option Plan. The first enumerated plan contains an "evergreen" provision that annually increases the number of shares available for award or to support option grants by 1% of the number of shares of the Company's common stock outstanding on the date of each Annual Meeting of Stockholders.

(2) Includes shares of Entegris common stock available for award or to support option grants under the Entegris, Inc. 2003 Employment Inducement and Acquisition Stock Option Plan described below.

(3) This balance of remaining shares has been reduced by: **(i)** the maximum number of shares that are potentially subject to award under outstanding performance share awards in the aggregate amount of 913,794 shares; if certain financial performance criteria are not met during the award period then these awards will be forfeited and the shares will be returned to the balance of shares available for future issuance under equity compensation plans; and **(ii)** the number of outstanding restricted share awards that remain subject to a risk of forfeiture, in the aggregate amount of 1,464,343 shares; if the awardee leaves the employment of the Company before these restrictions lapse then these shares will be forfeited and returned to the balance of shares available for future issuance under equity compensation plans. Under these plans the indicated balance is available for award either as stock options, restricted stock, restricted stock units or performance shares.

(4) This balance of remaining shares has been reduced by the number of outstanding restricted share awards under this plan that remain subject to a risk of forfeiture, in the aggregate amount of 75,200 shares; if the awardee leaves the employment of the Company before these restrictions lapse then these shares will be forfeited and returned to the balance of shares available for future issuance under equity compensation plans. Under this plan the indicated balance is available for award either as stock options, restricted stock awards, deferred stock awards or awards of securities convertible into shares.

The securities issued and available for issue pursuant to equity compensation plans not approved by security holders listed in the table above refers to the Entegris, Inc. 2003 Employment Inducement and Acquisition Stock Option Plan which was adopted by the Board of Directors of Mykrolis and assumed by the Company by action of its Board of Directors effective August 10, 2005. This stock option plan originally provided for the grant of stock options covering an aggregate of 486,500 shares of the Common stock, $0.01 par value, of the Company to newly hired (or rehired) employees and to employees of companies acquired by Entegris. The plan has a term of ten years and provides that all stock options granted under the plan carry an exercise price of fair market value on the date of grant. This plan also contains an "evergreen" provision that annually increases the number of shares available for award or to support option grants by 0.25% of the number of shares of the Company's common stock outstanding on the date of each Annual Meeting of Stockholders during the term of the plan.

The information called for by Item 403 of Regulation S-K is set forth under the caption "OWNERSHIP OF ENTEGRIS COMMON STOCK" in the Company's definitive Proxy Statement for the Entegris, Inc. Annual Meeting of Stockholders to be held on May 6, 2009, and to be filed with the Securities and Exchange Commission on or about April 3, 2009, which information is hereby incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information called for by this item with respect to certain transactions and relationships between the registrant and directors, executive officers and five percent stockholders is set forth under the caption "MANAGEMENT AND ELECTION OF DIRECTORS-Nominees for Election as Directors" in the Company's definitive Proxy Statement for the Entegris, Inc. Annual Meeting of Stockholders to be held on May 6, 2009, and to be filed with the Securities and Exchange Commission on or about April 3, 2009, which information is hereby incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information called for by this item with respect to the fees paid to and the services performed by the registrant's principal accountant is set forth under the caption "ACCOUNTANTS" in the Company's definitive Proxy Statement for the Entegris, Inc. Annual Meeting of Stockholders to be held on May 6, 2009, and to be filed with the Securities and Exchange Commission on or about April 3, 2009, which information is hereby incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules, and Reports on Form 8-K.

(a) The following documents are filed as a part of this report:

1. **Financial Statements.** The Consolidated Financial Statements listed under Item 8 of this report and in the Index to Consolidated Financial Statements on page F-1 of this report that is incorporated by reference.

2. **Exhibits.**

   A. The following exhibits are incorporated by reference:

Reg. S-K Item 601(b) Reference	Document Incorporated	Referenced Document on file with the Commission
(2)	Agreement and Plan of Merger, dated as of March 21, 2005, by and among Entegris, Inc., Mykrolis Corporation and Eagle DE, Inc.	Included as Annex A in the joint proxy statement/prospectus included in S-4 Registration . Statement of Entegris, Inc. and Eagle DE, Inc. (No. 333-124719)
(2)	Agreement and Plan of Merger, dated as of March 21, 2005, by and between Entegris, Inc., and Eagle DE, Inc.	Included as Annex B in the joint proxy statement/prospectus included in S-4 Registration. Statement of Entegris, Inc. and Eagle DE, Inc. (No. 333-124719)
(2)	Form of Master Separation and Distribution Agreement between Millipore Corporation and Mykrolis Corporation	Exhibit 2.1 to Mykrolis Corporation Form S-1 Registration Statement (No. 333-57182)
(2)	Form of General Assignment and Assumption Agreement between Millipore Corporation and Mykrolis Corporation	Exhibit 2.2 to Mykrolis Corporation Form S-1 Registration Statement (No. 333-57182)
(3)	Amended and Restated Certificate of Incorporation of Entegris, Inc.	Included as Annex C-2 in the joint proxy statement/prospectus included in S-4 Registration Statement of Entegris, Inc. and Eagle DE, Inc. (No. 333-124719)
(4)	Form of certificate representing shares of Common Stock, $.01 par value per share	Exhibit 4.1 to Form S-4 Registration Statement of Entegris, Inc. and Eagle DE, Inc. (No. 333-124719)
(4)	Rights Agreement dated July 26, 2005, between Entegris and Wells Fargo Bank, N.A as rights agent	Exhibit 4.1 to Entegris, Inc. (Entegris Minnesota) Current Report on Form 8-K filed with the Securities and Exchange Commission on July 29, 2005
(10)	Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan*	Entegris, Inc. Registration Statement on Form S-1 (No. 333-33668)
(10)	Amendment No. 3 to Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan*	Exhibit 10.3 to Entegris, Inc. Form 10-Q Quarterly Report for the period ended June 28, 2008
(10)	Entegris, Inc. Outside Directors' Stock Option Plan*	Entegris, Inc. Registration Statement on Form S-1 (No. 333-33668)

* A "management contract or compensatory plan"

Reg. S-K Item 601(b) Reference	Document Incorporated	Referenced Document on file with the Commission
(10)	Entegris, Inc. 2000 Employee Stock Purchase Plan	Entegris, Inc. Registration Statement on Form S-1 (No. 333-33668)
(10)	2001 Equity Incentive Plan*	Exhibit 10.1 to Mykrolis Corporation Form S-1 Registration Statement (No. 333-57182)
(10)	Amendment No. 2 to 2001 Equity Incentive Plan*	Exhibit 10.2 to Entegris, Inc. Form 10-Q Quarterly Report for the period ended June 28, 2008
(10)	2003 Employment Inducement and Acquisition Stock Option Plan*	Exhibit 10.6 to Mykrolis Corporation Form 10-Q Quarterly Report for the period ended September 27, 2003
(10)	Amended and Restated Entegris Incentive Plan *	Exhibit 10.1 to Entegris, Inc. Form 10-Q Quarterly Report for the period ended June 28, 2008
(10)	Lease Agreement, dated April 1, 2002 Between Nortel Networks HPOCS Inc. And Mykrolis Corporation, relating to Executive office, R&D and manufacturing facility located at 129 Concord Road Billerica, MA	Exhibit 10.1.3 to Mykrolis Corporation Quarterly Report on Form 10-Q, for the period ended March 31, 2002
(10)	Master Patent License Agreement	Exhibit 10.8 to Mykrolis Corporation Form S-1 Registration Statement (No. 333-57182)
(10)	Master Patent Grantback License Agreement	Exhibit 10.9 to Mykrolis Corporation Form S-1 Registration Statement (No. 333-57182)
(10)	Master Trademark License Agreement	Exhibit 10.11 to Mykrolis Corporation Form S-1 Registration Statement (No. 333-57182)
(10)	Master Invention Disclosure Assignment	Exhibit 10.12 to Mykrolis Corporation Form S-1 Registration Statement (No. 333-57182)
(10)	Master Trade Secret and Know-How Agreement	Exhibit 10.13 to Mykrolis Corporation Form S-1 Registration Statement (No. 333-57182)
(10)	Amended and Restated Employment Agreement, dated as of May 4, 2005, by and between Mykrolis Corporation and Gideon Argov*	Exhibit 10.13 to Mykrolis Corporation's Quarterly Report on Form 10-Q for the quarter ended April 2, 2005
(10)	STAT-PRO(R) 3000 and STAT-PRO(R) 3000E Purchase and Supply Agreement between Fluoroware, Inc. and Miller Waste Mills, d/b/a RTP Company, dated April 6, 1998	Entegris, Inc. Registration Statement on Form S-1 (No. 333-33668)
(10)	PFA Purchase and Supply Agreement by and between E.I. Du Pont De Nemours and Company and Fluoroware, Inc., dated January 7, 1999, which was made effective retroactively to November 1, 1998, and supplemented by the Assignment and Limited Amendment by and between the same parties and Entegris, Inc., dated as of September 24, 1999	Entegris, Inc. Registration Statement on Form S-1 (No. 333-33668)

* A "management contract or compensatory plan"

Reg. S-K Item 601(b) Reference	Document Incorporated	Referenced Document on file with the Commission
(10)	Credit Agreement, dated as of February 15, 2008, among Entegris, Inc., the Banks (as defined therein) Wells Fargo Bank NA, as agent, Citibank, as syndication Agent and RBS Citizens Bank, as documentation agent	Exhibit 10.1 to Entegris, Inc. Quarterly Report on Form 10-Q for the quarter ended March 29, 2008
(10)	Form of Indemnification Agreement between Entegris, Inc. and each of its executive officers and Directors	Exhibit 10.30 to Entegris, Inc. Annual Report on form 10- K for the period ended August 27, 2005
(10)	Form of Executive Change of Control Termination Agreement between Entegris, Inc. and each of its executive officers*	Exhibit 10.31 to Entegris, Inc. Annual Report on Form 10-K for the period ended August 27, 2005
(10)	Entegris, Inc. 401 (k) Savings and Profit Sharing Plan (2005 Restatement)*	Exhibit 10.35 to Entegris, Inc. Annual Report on Form 10-K for the period ended August 27, 2005
(10)	Form of Entegris, Inc. Restricted Stock Award Agreement*	Exhibit 10.2 to Entegris, Inc. Quarterly Report on Form 10-Q for the period ended November 27, 2005
(10)	Entegris, Inc.—Form of 2006 Equity Incentive Award Agreement	Exhibit 10.1 to Entegris, Inc. Quarterly Report on Form 10-Q for the period ended April 1, 2006,
(10)	Translation of Loan Agreement, dated November 2, 2007, between Nihon Entegris KK and Summitomo Mitsui Banking Corporation	Exhibit 10.1 to Entegris, Inc. Annual Report on Form 10-K for the fiscal year ended December 31, 2007
(10)	Translation of Specialized Overdraft Account Agreement, dated November 2, 2007, between Nihon Entegris KK and Bank of Tokyo-Mitsubishi UFJ, Ltd.	Exhibit 10.2 to Entegris, Inc. Annual Report on Form 10-K for the fiscal year ended December 31, 2007
(10)	Agreement and Plan of Merger and Amendment #1 thereto by and among Entegris, Inc. Entegris Acquisition Co. LLC, Poco Graphite, Inc. and Poco Graphite Holdings LLC, dated July 13, 2008	Exhibits 99.1 and 99.2 to Entegris, Inc. Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 11, 2008
(10)	Executive Termination Agreement, dated July 7, 2008 between Entegris, Inc. and Jean-Marc Pandraud*	Exhibit 10.2 to Entegris, Inc. Quarterly Report on Form 10-Q for the period ended September 27, 2008
(10)	Severance Agreement, dated July 7, 2008 between Entegris, Inc. and Gregory B. Graves*	Exhibit 10.3 to Entegris, Inc. Quarterly Report on Form 10-Q for the period ended September 27, 2008
(10)	Trust Agreement between Entegris, Inc. Fidelity Management Trust Company and Entegris Inc. 401(k) Savings and Profit Sharing Plan Trust, dated December 29, 2007.	Exhibit 10.3 to Entegris, Inc. Annual Report on Form 10-K for the fiscal year ended December 31, 2007

* A "management contract or compensatory plan"

Reg. S-K Item 601(b) Reference	Document Incorporated	Referenced Document on file with the Commission
(10)	Entegris, Inc. 2007 Deferred Compensation Plan*	Exhibit 10.2 to Entegris, Inc. Quarterly Report on Form 10-Q for the fiscal period ended June 30, 2007
(10)	Entegris, Inc.—Form of 2007 Equity Incentive Award Agreement*	Exhibit 10.4 to Entegris, Inc. Annual Report on Form 10-K for the fiscal year ended December 31, 2007

B. The Company hereby files as exhibits to this Annual Report on Form 10-K the following documents:

Reg. S-K Item 601(b) Reference	Exhibit No.	Documents Filed Herewith
(3)	3	By-Laws of Entegris, Inc., as amended December 17, 2008 (revised to correct typographical errors)
(10)	10.1	Second Amended and Restated Membrane Manufacture and Supply Agreement, dated December 19, 2008, by and between Entegris, Inc. and Millipore Corporation
(10)	10.2	Amended and Restated Supplemental Executive Retirement Plan for Key Salaried Employees*
(10)	10.3	Entegris, Inc.—Form of 2008 Equity Incentive Award Agreement*
(21)	21	Subsidiaries of Entegris, Inc.
(23)	23	Consent of Independent Registered Public Accounting Firm
(24)	24	Power of Attorney by the Directors of Entegris, Inc.
(31)	31.1	Certification required by Rule 13a-14(a) in accordance with Section 302 of the Sarbanes-Oxley Act of 2002.
(31)	31.2	Certification required by Rule 13a-14(a) in accordance with Section 302 of the Sarbanes-Oxley Act of 2002.
(32)	32.1	Certification required by Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
(32)	32.2	Certification required by Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* A “management contract or compensatory plan”

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ENTEGRIS, INC.

Dated: March 2, 2009

By /s/ GIDEON ARGOV
Gideon Argov
President & Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ GIDEON ARGOV **Gideon Argov**	Chief Executive Officer and Director	March 2, 2009
/s/ GREGORY B. GRAVES **Gregory B. Graves**	Chief Financial Officer	March 2, 2009
/s/ LYNN BLAKE **Lynn Blake**	Chief Accounting Officer	March 2, 2009
ROGER D. MCDANIEL* **Roger D. McDaniel**	Director (Chairman of the Board)	March 2, 2009
MICHAEL A. BRADLEY* **Michael A. Bradley**	Director	March 2, 2009
MICHAEL P.C. CARNS* **Michael P.C. Carns**	Director	March 2, 2009
DANIEL W. CHRISTMAN* **Daniel W. Christman**	Director	March 2, 2009
GARY F. KLINGL* **Gary F. Klingl**	Director	March 2, 2009
PAUL L.H. OLSON* **Paul L.H. Olson**	Director	March 2, 2009
BRIAN F. SULLIVAN* **Brian F. Sullivan**	Director	March 2, 2009

*By /s/ PETER W. WALCOTT
PETER W. WALCOTT, ATTORNEY-IN-FACT

ENTEGRIS, INC.
INDEX TO FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
Entegris, Inc.:

We have audited the accompanying consolidated balance sheets of Entegris, Inc. and subsidiaries as of December 31, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2008. We also have audited the Company's 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 these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A.(b) *Management's Report on Internal Control Over Financial Reporting*. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Company's internal control over financial reporting 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Entegris, Inc. and subsidiaries as of December 31, 2008 and 2007, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles. Also in our opinion, Entegris, Inc. 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 the Committee of Sponsoring Organizations of the Treadway Commission.

The scope of management's assessment of internal control over financial reporting as of December 31, 2008 includes all of the subsidiaries of Entegris, Inc. except for Poco Graphite, Inc., which was acquired on August 11, 2008. The consolidated net sales of Entegris, Inc. and subsidiaries for the year ended December 31, 2008 were $555 million of which Poco Graphite, Inc. represented $23 million. The consolidated total assets of Entegris, Inc. and subsidiaries as of December 31, 2008 were $598 million of which Poco Graphite, Inc. represented $113 million. Our audit of internal control over financial reporting of Entegris, Inc. also excluded an evaluation of the internal control over financial reporting of Poco Graphite, Inc.

As discussed in Note 16 to the consolidated financial statements, the Company adopted the provisions of Financial Accounting Standards Board Interpretation No. 48, "*Accounting for Uncertainty in Income Taxes an interpretation of FASB Statement No. 109"* as of January 1, 2007.

As discussed in Note 19 to the consolidated financial statements, the Company adopted the provisions of Financial Accounting Standards Board Statement No. 157, "*Fair Value Measurements"* as of January 1, 2008.

/s/ KPMG LLP

Minneapolis, Minnesota
March 2, 2009

ENTEGRIS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

(In thousands, except share data)	December 31, 2008	December 31, 2007
ASSETS		
Current assets:		
Cash and cash equivalents	$ 115,033	$ 160,655
Trade accounts and notes receivable, net	70,535	112,053
Inventories	102,189	73,120
Deferred tax assets, deferred tax charges and refundable income taxes	14,661	23,238
Assets of discontinued operations and other assets held for sale	2,450	4,187
Other current assets	8,260	9,368
Total current assets	313,128	382,621
Property, plant and equipment, net	159,738	121,157
Other assets:		
Investments	14,003	13,871
Goodwill	—	402,125
Other intangible assets, net	93,139	76,370
Deferred tax assets and other noncurrent tax assets	13,315	35,323
Other	4,501	3,774
Total assets	$ 597,824	$ 1,035,241
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Current maturities of long-term debt	$ 13,166	$ 9,310
Short-term borrowings	—	17,802
Accounts payable	21,782	24,260
Accrued liabilities	36,971	57,657
Deferred tax liabilities and income taxes payable	7,437	12,495
Liabilities of discontinued operations	—	4,225
Total current liabilities	79,356	125,749
Long-term debt, less current maturities	150,516	20,373
Pension benefit obligations and other liabilities	24,559	21,320
Deferred tax liabilities and other noncurrent tax liabilities	7,223	15,490
Commitments and contingent liabilities	—	—
Shareholders' equity:		
Preferred stock, par value $.01; 5,000,000 shares authorized; none issued and outstanding as of December 31, 2008 and 2007	—	—
Common stock, par value $.01; 400,000,000 shares authorized; issued and outstanding shares: 113,101,535 and 115,355,560	1,131	1,154
Additional paid-in capital	684,974	701,510
Retained (deficit) earnings	(376,247)	145,462
Accumulated other comprehensive income	26,312	4,183
Total shareholders' equity	336,170	852,309
Total liabilities and shareholders' equity	$ 597,824	$ 1,035,241

See the accompanying notes to consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)	Year ended December 31, 2008	Year ended December 31, 2007	Year ended December 31, 2006
Net sales	$ 554,699	$ 626,238	$ 672,882
Cost of sales	343,184	360,001	367,804
Gross profit	211,515	266,237	305,078
Selling, general and administrative expenses	147,531	163,918	170,702
Engineering, research and development expenses	40,086	39,727	38,074
Amortization of intangible assets	19,585	18,874	17,609
Impairment of goodwill	473,799	—	—
Restructuring charges	10,423	—	—
Operating (loss) profit	(479,909)	43,718	78,693
Interest expense (income), net	1,018	(5,245)	(9,205)
Other expense (income), net	15,486	(7,656)	(1,658)
(Loss) income before income taxes and equity in net loss (earnings) of affiliates	(496,413)	56,619	89,556
Income tax expense	19,201	10,356	26,936
Equity in net loss (earnings) of affiliates	283	(93)	(531)
(Loss) income from continuing operations	(515,897)	46,356	63,151
(Loss) income from operations of discontinued businesses, net of taxes	(1,105)	(891)	315
Impairment loss on assets of discontinued businesses, net of taxes	—	(1,106)	—
(Loss) income from discontinued operations, net of taxes	(1,105)	(1,997)	315
Net (loss) income	$(517,002)	$ 44,359	$ 63,466
Basic (loss) earnings per common share:			
Continuing operations	$ (4.58)	$ 0.38	$ 0.47
Discontinued operations	(0.01)	(0.02)	0.00
Net (loss) income	$ (4.59)	$ 0.36	$ 0.47
Diluted (loss) earnings per common share:			
Continuing operations	$ (4.58)	$ 0.37	$ 0.46
Discontinued operations	(0.01)	(0.02)	0.00
Net (loss) income	$ (4.59)	$ 0.36	$ 0.46
Weighted shares outstanding			
Basic	112,653	122,557	135,116
Diluted	112,653	124,940	138,492

See the accompanying notes to consolidated financial statements.

ENTEGRIS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY AND COMPREHENSIVE INCOME (LOSS)

(In thousands)	Common shares outstanding	Common stock	Additional paid-in capital	Prepaid Forward Contract for Share Repurchase	Retained earnings	Accumulated other comprehensive income (loss)	Total	Comprehensive income (loss)
Balance at December 31, 2005	136,044	1,360	809,012	—	206,936	(4,489)	1,012,819	
Shares issued under employee stock plans	5,607	57	19,962	—	—	—	20,019	
Share-based compensation expense		—	14,776	—	—	—	14,776	
Repurchase and retirement of common stock	(8,880)	(89)	(53,445)	(5,000)	(41,466)	—	(100,000)	
Tax benefit associated with stock plans	—	—	2,753	—	—	—	2,753	
Foreign currency translation	—	—	—	—	—	2,171	2,171	$ 2,171
Net change in unrealized gain on marketable securities, net of tax	—	—	—	—	—	204	204	204
Minimum pension liability adjustment to initially apply SFAS No. 158	—	—	—	—	—	(228)	(228)	—
Net income	—	—	—	—	63,466	—	63,466	63,466
Total comprehensive income								$ 65,841
Balance at December 31, 2006	132,771	$ 1,328	$ 793,058	$ (5,000)	$ 228,936	$ (2,342)	$1,015,980	
Adoption of FIN No. 48	—	—	—	—	1,110	—	1,110	
Adjusted beginning balance	132,771	$ 1,328	$ 793,058	$ (5,000)	$ 230,046	$ (2,342)	$1,017,090	
Shares issued under employee stock plans	4,573	46	29,810				29,856	
Share-based compensation expense		—	10,344	—	—	—	10,344	
Repurchase and retirement of common stock	(21,988)	(220)	(131,946)	5,000	(128,943)	—	(256,109)	
Tax benefit associated with stock plans	—	—	244	—	—	—	244	
Foreign currency translation	—	—	—	—	—	7,383	7,383	$ 7,383
Net change in unrealized gain on marketable securities, net of tax	—	—	—	—	—	(135)	(135)	(135)
Minimum pension liability adjustment	—	—	—	—	—	(723)	(723)	(723)
Net income	—	—	—	—	44,359	—	44,359	44,359
Total comprehensive income								$ 50,884
Balance at December 31, 2007	115,356	$ 1,154	$ 701,510	$ —	$ 145,462	$ 4,183	$ 852,309	
Shares issued under employee stock plans	1,717	17	3,080				3,097	
Share-based compensation expense		—	7,024	—	—	—	7,024	
Repurchase and retirement of common stock	(3,971)	(40)	(24,148)	—	(4,707)	—	(28,895)	
Tax shortfall associated with stock plans	—	—	(2,492)	—	—	—	(2,492)	
Foreign currency translation	—	—	—	—	—	23,139	23,139	$ 23,139
Minimum pension liability adjustment	—	—	—	—	—	(1,010)	(1,010)	(1,010)
Net loss	—	—	—	—	(517,002)	—	(517,002)	(517,002)
Total comprehensive (loss)								$ (494,873)
Balance at December 31, 2008	113,102	$ 1,131	$ 684,974	$ —	$(376,247)	$ 26,312	$ 336,170	

ENTEGRIS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY AND COMPREHENSIVE INCOME (LOSS)

The accumulated balances for each component of accumulated other comprehensive income (loss) are as follows:

(In thousands)	Foreign currency translation	Net unrealized gain (loss) on marketable securities	Minimum pension liability adjustment	Total accumulated other comprehensive income (loss)
Balance at December 31, 2005	$ (4,420)	$ (69)	$ —	$ (4,489)
Foreign currency translation	2,171	—	—	2,171
Change in unrealized gain on marketable securities, net of tax of $125	—	204	—	204
Minimum pension liability adjustment, net of tax of $113	—	—	(228)	(228)
Balance at December 31, 2006	$ (2,249)	$ 135	$ (228)	$ (2,342)
Foreign currency translation	7,383	—	—	7,383
Change in unrealized gain on marketable securities, net of tax of $83	—	(135)	—	(135)
Minimum pension liability adjustment, net of tax of $522	—	—	(723)	(723)
Balance at December 31, 2007	$ 5,134	$ —	$ (951)	$ 4,183
Foreign currency translation	23,139	—	—	23,139
Minimum pension liability adjustment, net of tax of $648	—	—	(1,010)	(1,010)
Balance at December 31, 2008	$ 28,273	$ —	$ (1,961)	$ 26,312

See the accompanying notes to consolidated financial statements

ENTEGRIS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)	Year ended December 31, 2008	Year ended December 31, 2007	Year ended December 31, 2006
Operating activities:			
Net (loss) income	$ (517,002)	$ 44,359	$ 63,466
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Loss (income) from discontinued operations	1,105	1,997	(315)
Depreciation	26,758	24,902	25,296
Amortization	19,585	18,874	17,609
Stock-based compensation expense	7,024	10,344	14,776
Impairment of property and equipment	1,388	4,098	1,505
Impairment of goodwill	473,799	—	—
Impairment of intangibles	—	235	—
Impairment of equity investments	11,698	—	—
Provision for doubtful accounts	697	(227)	(508)
Deferred tax valuation allowance	42,093	—	—
Provision for deferred income taxes	(26,443)	(20,434)	11,155
Charge for fair value mark-up of acquired inventory sold	13,519	836	—
Excess tax benefit from employee stock plans	—	(244)	(3,031)
Equity in net loss (earnings) of affiliates	283	(93)	(531)
Gain on sale of property and equipment	(63)	(274)	(903)
Gain on sale of equity investments	—	(6,068)	—
Changes in operating assets and liabilities, excluding effects of acquisitions:			
Trade accounts receivable and notes receivable	53,355	20,054	(16,960)
Inventories	1,922	24,061	(24,280)
Accounts payable and accrued liabilities	(35,523)	(2,935)	(10,357)
Other current assets	1,195	(1,695)	3,189
Income taxes payable and refundable income taxes	(18,873)	14,682	7,669
Other	9,743	(455)	8,296
Net cash provided by operating activities	66,260	132,017	96,076
Investing activities:			
Acquisition of property and equipment	(26,987)	(26,919)	(30,860)
Acquisition of businesses, net of cash acquired	(162,852)	(44,911)	—
Proceeds from sales of property and equipment	900	2,021	3,866
Proceeds from sale of equity investments	—	6,568	—
Purchase of equity investments	(10,982)	(6,126)	—
Purchases of short-term investments	—	(269,822)	(170,205)
Proceeds from sale or maturities of short-term investments	—	390,915	181,412
Other	—	(926)	(1,583)
Net cash (used in) provided by investing activities	(199,921)	50,800	(17,370)
Financing activities:			
Principal payments on short-term borrowings and long-term debt	(64,707)	(88,115)	(3,087)
Proceeds from short-term borrowings and long-term debt	173,811	131,063	—
Repurchase and retirement of common stock	(28,895)	(256,109)	(100,000)
Excess tax benefit from employee stock plans	—	244	3,031
Payment for debt issue costs	(625)	—	—
Issuance of common stock	3,097	29,856	20,019
Net cash provided by (used in) financing activities	82,681	(183,061)	(80,037)
Discontinued operations:			
Net cash (used in) provided by operating activities	(1,878)	1,237	1,754
Net cash provided by investing activities	735	—	13,017
Net cash (used in) provided by discontinued operations	(1,143)	1,237	14,771
Effect of exchange rate changes on cash and cash equivalents	6,501	4,856	(1,472)
(Decrease) increase in cash and cash equivalents	(45,622)	5,849	11,968
Cash and cash equivalents at beginning of period	160,655	154,806	142,838
Cash and cash equivalents at end of period	$ 115,033	$ 160,655	$ 154,806
Supplemental Cash Flow Information			
Non-cash transactions:			
Equipment purchases in accounts payable	$ 4,737	$ 1,198	—
Schedule of interest and income taxes paid:			
Interest paid	$ 2,772	$ 691	$ 463
Income taxes, net of refunds received	$ 23,300	$ 3,794	$ 2,502

See accompanying notes to consolidated financial statements.

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations and Principles of Consolidation Entegris is a leading provider of a wide range of products for purifying, protecting and transporting critical materials used in processing and manufacturing in the semiconductor and other high-technology industries. The consolidated financial statements include the accounts of the Company and its majority-owned subsidiaries. Intercompany profits, transactions and balances have been eliminated in consolidation.

The Company was incorporated in Delaware in June 2005 under the name Eagle DE, Inc. (Eagle DE) as a wholly owned subsidiary of Entegris, Inc., a Minnesota corporation (Entegris Minnesota). Effective August 6, 2005, Entegris Minnesota and Mykrolis Corporation, a Delaware corporation, completed a strategic merger of equals transaction, pursuant to which they were each merged into the Company to carry on the combined businesses. Pursuant to the merger the Company's name was changed to Entegris, Inc. The stock-for-stock transaction was accounted for under the purchase method of accounting as an acquisition of Mykrolis by the Company.

Fiscal Year On December 13, 2005, the Company's Board of Directors approved a change in fiscal year end from a 52-week or 53-week fiscal year period ending on the last Saturday of August to a fiscal year ending December 31. The Company's new fiscal quarters consist of 13 week periods that end on Saturday, except in the fourth quarter. The Company's fiscal quarters in 2008 ended on March 29, 2008, June 28, 2008, September 27, 2008 and December 31, 2008.

Basis of Presentation The accompanying consolidated financial statements have been prepared on a going concern basis.

The Company had a net loss of $517.0 million in fiscal 2008, including a fourth quarter net loss of $131.7 million, which included after-tax goodwill impairment charges of $454.6 million and $89.4 million, respectively. Revenues declined sharply in the fourth quarter of 2008 to $112.7 million down from $145.8 million in the third quarter 2008 and from $161.3 million in the fourth quarter of 2007. The revenue run rate for the first seven weeks of 2009 is down significantly from what the Company experienced in the fourth quarter of 2008. As a result of this poor business environment, the Company projected that it would violate the debt covenants in its $230 revolving credit facility in the first half of 2009. Therefore, the Company's management, working with its banks, undertook amending its $230 million revolving credit facility. On March 2, 2009, the Company entered into a $150 million amended revolving credit facility. The $150 million amended revolving credit facility allows the Company to borrow up to $139 million based on its current borrowing base with an additional $11 million available at the discretion of the majority of its banks. As of December 31, 2008 and February 27, 2009, the Company has $139 million outstanding. The amended revolving credit facility requires the Company to maintain compliance with new debt covenants and to pay higher rates of interest (see Note 23 to the Company's consolidated financial statements).

While the Company has taken significant action to date including the announcement of the closure of its largest Chaska facility that will ultimately result in the layoff of approximately 200 employees and the reduction of exempt employees' wages by an aggregate annual amount in excess of $5.0 million, further actions will be necessary if revenue levels do not improve in the very near term. At current 2009 revenue levels, the Company's management will be required to act upon its identified contingency plan to significantly reduce operating expenses further in order to avoid violating the covenants in the $150 million amended revolving credit facility. These reductions, if necessary, would include such items as furloughs, permanent headcount reductions, office closures, further reductions in discretionary spending, elimination of certain new product development initiatives and other cost reduction measures. Certain of the contingency plan actions may likely need to be implemented late in the first quarter to realize the financial benefits necessary to maintain compliance with the Company's debt covenants. While there can be no assurances that these actions will be sufficient, such contingency plans are within the Company's control. Further, the Company has the intent and ability to execute as necessary and believes such benefits are achievable. However, there can be no assurance that these additional operating expense reductions will not have a lasting negative impact on the Company's long term business prospects.

In the second quarter and year ended December 31, 2008, the Company identified certain errors in its inventory accounts related to its fiscal year ended December 31, 2007. The impact of correcting these errors in the second quarter decreased cost of goods sold by $0.7 million with a corresponding increase to inventory. Associated with the correction of this error, the Company increased income tax expense by $0.2 million with a corresponding increase to income taxes payable resulting in an increase in net income of $0.5 million. Neither the origination nor the correction of the errors was material to the Company's consolidated financial statements.

Use of Estimates and Risks and Uncertainties The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, particularly receivables, inventories, property, plant and equipment, and intangibles, accrued expenses and income taxes and related accounts, and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. See Note 2 as to the use of estimates in connection with the Company's review of its long-lived assets.

The Company is experiencing significant revenue deterioration due to a severe downturn in both the capital and unit-driven segments of the semiconductor industry that began during the second half of 2008. The Company is unable to predict the ultimate duration and severity of this downturn or the timing of a recovery, if any, for the semiconductor industry. The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, particularly receivables, inventories, property, plant and equipment, and intangibles, accrued expenses and income taxes and related accounts, and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. See Note 2 as to the use of estimates in connection with the Company's review of its long-lived assets.

Under its $150 million amended credit facility, dated March 2, 2009, the Company is at its borrowing cap of $139 million. The borrowing cap can be adjusted downward if the Company's level of qualifying US accounts receivable, inventories and value of property plant and equipment were to decline from current levels. The remaining $11 million of the credit facility may not be borrowed unless a majority of the lenders consent. The Company's amended credit agreement contains various financial covenants that limit its ability to purchase no more than $16 million in capital equipment in 2009 and no more than $20 million in 2010; requires that the Company maintain a minimum level of cash in the United States; and achieve certain levels of EBITDA performance during 2009 and the first quarter of 2010.

During the first two months of 2009 the Company's revenue levels have declined significantly from those it experienced during the fourth quarter of 2008 which has a negative impact on its ability to remain compliant with the EBITDA levels as required by the Company's debt covenants. If revenue continues at these levels for the balance of 2009, at the current operating expense levels, the Company will violate the financial covenants of its amended credit agreement during 2009. In the event that revenue levels do not improve in the very near term, management will be required to act upon its identified contingency plan to significantly reduce operating expenses in order to avoid violating those covenants. These reductions, if necessary, would include such items as furloughs, permanent headcount reductions, office closures, further reductions in discretionary spending, elimination of certain new product development initiatives and other cost reduction measures. Certain of the contingency plan actions may likely need to be implemented late in the first quarter to realize the financial benefits necessary to maintain debt compliance.

Concentrations of Suppliers Certain materials included in the Company's products are obtained from a single source or a limited group of suppliers. Although the Company seeks to reduce dependence on those sole and limited source suppliers, the partial or complete loss of these sources could have at least a temporary adverse effect on the Company's results of operations. Furthermore, a significant increase in the price of one or more of these components could adversely affect the Company's results of operations.

Share-based Compensation The Company accounts for share-based compensation in accordance with Statement of Financial Accounting Standard ("SFAS") No. 123R*, Share-Based Payment*. SFAS No. 123R requires the Company to measure the cost of employee services received in exchange for the award of equity instruments based on the fair value of the award at the date of grant. The cost is to be recognized over the period during which an employee is required to provide services in exchange for the award.

Cash, Cash Equivalents and Short-term Investments Cash and cash equivalents include cash on hand and highly liquid debt securities with original maturities of three months or less, which are valued at cost which approximates fair value. Debt securities with original maturities greater than three months and remaining maturities of less than one year are classified and accounted for as available for sale and are recorded at fair value, and are classified as short-term investments.

Allowance for Doubtful Accounts An allowance for uncollectible trade receivables is estimated based on a combination of write-off history, aging analysis and any specific, known troubled accounts.

Inventories Inventories are stated at the lower of cost or market. Cost is generally determined by the first-in, first-out (FIFO) method.

Property, Plant, and Equipment Property, plant and equipment are carried at cost and are depreciated principally on the straight-line method over the estimated useful lives of the assets. When assets are retired or disposed of, the cost and related accumulated depreciation are removed from the accounts, and gains or losses are recognized in the same period. Maintenance and repairs are expensed as incurred; significant additions and improvements are capitalized. Property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or group of asset(s) may not be recoverable based on estimated future undiscounted cash flows. The amount of impairment, if any, is measured as the difference between the net book value and the estimated fair value of the asset(s).

Investments The Company's nonmarketable investments are accounted for under either the cost or equity method of accounting, as appropriate. All equity investments are periodically reviewed to determine whether declines, if any, in fair value below cost basis are other-than-temporary. If the decline in fair value is determined to be other-than-temporary, an impairment loss is recorded and the investment written down to a new cost basis.

Fair Value of Financial Instruments The carrying value of cash equivalents, accounts receivable, accounts payable and short-term debt approximates fair value due to the short maturity of those instruments. The fair value of long-term debt was estimated using discounted cash flows based on market interest rates for similar instruments and approximated its carrying value at December 31, 2008.

Goodwill and Other Intangible Assets Goodwill is the excess of the purchase price over the fair value of net assets of acquired businesses. The Company does not amortize goodwill, but tests for impairment at least annually. Other amortizable intangible assets include, among other items, patents, unpatented and other developed technology and customer-based intangibles, and are amortized using the straight-line method over their respective estimated useful lives of 3 to 15 years. The Company reviews intangible assets for impairment if changes in circumstances or the occurrence of events suggest the remaining value is not recoverable.

Derivative Financial Instruments SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, requires the Company to record derivatives as assets or liabilities on the balance sheet and to measure such instruments at fair value. Changes in fair value of derivatives are recorded each period in current results of operations or other comprehensive income, depending on whether the derivative is designated as part of a hedge transaction.

The Company periodically enters into forward foreign currency contracts to reduce exposures relating to rate changes in certain foreign currencies. Certain exposures to credit losses related to counterparty nonperformance exist. However, the Company does not anticipate nonperformance by the counterparties since they are large, well-established financial institutions. Except as described in the following paragraph, none of these derivatives is accounted for as a hedge transaction under the provisions of SFAS No. 133. Accordingly, changes in the fair value of forward foreign currency contracts are recorded as a component of net income. The fair values of the Company's derivative financial instruments are based on prices quoted by financial institutions for these instruments. The Company was a party to forward foreign currency contracts with notional amounts of $1.8 million and $33.6 million at December 31, 2008 and 2007, respectively.

On February 6, 2007, the Company entered into a 10-month Japanese yen-based cross-currency interest rate swap, with aggregate notional principal amounts of 2.4 billion Japanese yen and $20 million that matured on November 30, 2007. This swap effectively hedged a portion of the Company's net investment in its Japanese subsidiary. During the term of this transaction, the Company remitted to, and received from, its counterparty interest payments based on rates that were reset quarterly equal to three-month Japanese LIBOR and three-month U.S. LIBOR rates, respectively. The Company designated this hedging instrument as a hedge of a portion of the net investment in its Japanese subsidiary, and used the spot rate method of accounting to value changes of the hedging instrument attributable to currency rate fluctuations. As such, a $2.1 million adjustment in the fair market value of the hedging instrument related to changes in the spot rate was recorded as a charge to "Foreign currency translation" in shareholders' equity in 2007 to offset changes in a portion of the yen-denominated net investment in the Company's Japanese subsidiary and will remain there until the net investment is disposed. The Company recorded $0.7 million in net interest income in 2007 in connection with the cross-currency interest rate swap.

Foreign Currency Translation Assets and liabilities of foreign subsidiaries are translated from foreign currencies into U.S. dollars at period-end exchange rates, and the resulting gains and losses arising from translation of net assets located outside the U.S. are recorded as a cumulative translation adjustment, a component of accumulated other comprehensive income (loss) in the consolidated balance sheets. Income statement amounts are translated at the weighted average exchange rates for the year. Translation adjustments are not adjusted for income taxes as substantially all translation adjustments relate to permanent investments in non-U.S. subsidiaries. Gains and losses resulting from foreign currency transactions are included in other income, net in the consolidated statements of operations.

Revenue Recognition/Concentration of Risk Revenue and the related cost of sales are generally recognized upon shipment of the products. Revenue for product sales is recognized upon delivery, when persuasive evidence of an arrangement exists, when title and risk of loss have been transferred to the customer, collectibility is reasonably assured, and pricing is fixed or determinable.

The Company provides for estimated returns and warranty obligations when the revenue is recorded. The Company sells its products throughout the world primarily to companies in the microelectronics industry. The Company performs continuing credit evaluations of its customers and generally does not require collateral. Letters of credit may be required from its customers in certain circumstances. The Company maintains an allowance for doubtful accounts that management believes is adequate to cover losses on trade receivables.

The Company collects various sales and value-added taxes on certain product and service sales that are accounted for on a net basis.

Income Taxes Deferred income taxes are provided in amounts sufficient to give effect to temporary differences between financial and tax reporting. The Company accounts for tax credits as reductions of income tax expense. The Company utilizes the asset and liability method for computing its deferred income taxes. Under the asset and liability method, deferred tax assets and liabilities are based on the temporary difference between the financial statement and tax basis of assets and liabilities and the enacted tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. The Company collects various sales and value-added taxes on certain product and service sales, which are accounted for on a net basis.

The Company has significant amounts of deferred tax assets. Management reviews its deferred tax assets for recoverability on a quarterly basis and assesses the need for valuation allowances. These deferred tax assets are evaluated jurisdictionally, by considering historical levels of income, estimates of future taxable income streams and the impact of tax planning strategies. A valuation allowance is recorded to reduce deferred tax assets when it is determined that it is more likely than not that the Company would not be able to realize all or part of its deferred tax assets based on all available evidence. At December 31, 2008, the Company recorded a $42.7 million valuation allowance against deferred tax assets which, in management's estimate, cannot be determined to be more likely than not to be realized. The Company carried no valuation allowance against its deferred tax assets at December 31, 2007.

Except as indicated in Note 16 as relates to 13.4 billion yen (approximately $122 million), the Company intends to continue to reinvest its remaining undistributed international earnings in its international operations indefinitely; therefore, no U.S. tax expense has been recorded to cover the repatriation of such undistributed earnings.

The Company's policy for recording interest and penalties associated with audits and unrecognized tax benefits is to record such items as a component of income before taxes. Penalties are recorded in other expense and interest paid or received is recorded in interest expense or interest income, respectively, in the statement of operations.

Comprehensive Income (Loss) Comprehensive income (loss) represents the change in shareholders' equity resulting from items other than shareholder investments and distributions. The Company's foreign currency translation adjustments, unrealized gains and losses on marketable securities and minimum pension liability adjustments are included in accumulated other comprehensive income (loss). Comprehensive income (loss) and the components of accumulated other comprehensive income (loss) are presented in the accompanying consolidated statements of shareholders' equity and comprehensive income (loss).

Recent Accounting Pronouncements In December 2007, the Financial Accounting Standard Board (FASB) issued SFAS No. 141 (revised 2007) *Business Combinations* (SFAS No. 141(R)). SFAS No. 141(R) retains the fundamental requirements of the original pronouncement requiring that the purchase method be used for all business combinations. SFAS No. 141(R) defines the acquirer as the entity that obtains control of one or more businesses in the business combination, establishes the acquisition date as the date that the acquirer achieves control, and requires the acquirer to recognize the assets acquired, liabilities assumed and any noncontrolling interest at their fair values as of the acquisition date. SFAS No. 141(R) also requires that acquisition-related costs be recognized separately from the acquisition. SFAS No. 141(R) is effective for the Company January 1, 2009. The Company is currently assessing the impact of SFAS No. 141(R) on its consolidated financial statements.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements (*SFAS No. 160*)*. SFAS No. 160 clarifies that a noncontrolling interest in a subsidiary should be reported as equity in the consolidated financial statements. Consolidated net income should include the net income for both the parent and the noncontrolling interest, with disclosure of both amounts on the consolidated statement of income. The calculation of earnings per share will continue to be based on income amounts attributable to the parent. SFAS No. 160 is effective for the Company January 1, 2009. The Company is currently assessing the impact of SFAS No. 160 on its consolidated financial statements.

In March 2008, the FASB issued SFAS No. 161, *Disclosures about Derivative Instruments and Hedging Activities* (SFAS 161). SFAS 161 amends and expands the disclosure requirements of SFAS 133, *Accounting for Derivative Instruments and Hedging Activities* (SFAS 133). It requires qualitative disclosures about objectives and strategies for using derivatives, quantitative disclosures about fair value amounts of gains and losses on derivative instruments, and disclosures about credit-risk-related contingent features in derivative agreements. SFAS No. 161 is effective for the Company January 1, 2009. The Company is currently assessing the impact of SFAS No. 161 on its consolidated financial statements.

In April 2008, the FASB issued FASB Staff Position (FSP) 142-3, *Determination of the Useful Life of Intangible Assets*, (FSP 142-3). FSP 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under SFAS No. 142, *Goodwill and Other Intangible Assets*. FSP 142-3 is effective for the Company January 1, 2009. The Company is currently assessing the impact of FSP 142-3 on its consolidated financial statements.

In May 2008, the FASB issued SFAS 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. SFAS 162 was effective November 15, 2008 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 implementation of this standard did not have a material impact on the Company's consolidated financial statements.

In June 2008, the FASB issued FSP Emerging Issues Task Force (EITF) 03-6-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities* (FSP EITF 03-6-1). FSP EITF 03-6-1 clarified that all outstanding unvested share-based payment awards that contain rights to nonforfeitable dividends participate in undistributed earnings with common shareholders. Awards of this nature are considered participating securities and the two-class method of computing basic and diluted earnings per share must be applied. FSP EITF 03-6-1 is effective for the Company January 1, 2009. The application of FSP EITF 03-6-1 will not have a material impact on the Company's consolidated financial statements.

In June 2008, the FASB ratified EITF Issue No. 07-5, *Determining Whether an Instrument (or an Embedded Feature) Is Indexed to an Entity's Own Stock* (EITF 07-5). EITF 07-5 provides that an entity should use a two-step approach to evaluate whether an equity-linked financial instrument (or embedded feature) is indexed to its own stock, including evaluating the instrument's contingent exercise and settlement provisions. It also clarifies the impact of foreign currency denominated strike prices and market-based employee stock option valuation instruments on the evaluation. EITF 07-5 is effective for the Company January 1, 2009. The application of EITF Issue No. 07-5 will not have a material impact on the Company's consolidated financial statements.

In June 2008, the FASB ratified EITF Issue No. 08-3, *Accounting for Lessees for Maintenance Deposits Under Lease Arrangements* (EITF 08-3). EITF 08-3 provides guidance for accounting for nonrefundable maintenance deposits. It also provides revenue recognition accounting guidance for the lessor. EITF 08-3 is effective for the Company January 1, 2009. The application of EITF Issue No. 08-3 will not have a material impact on the Company's consolidated financial statements.

(2) IMPAIRMENT OF GOODWILL

In accordance with Statement of Financial Accounting Standards ("SFAS") No. 142, *Goodwill and Other Intangible Assets*, the Company tested for impairment of its goodwill in connection with its annual impairment test of goodwill as of August 31, 2008, and due to events and changes in circumstances through the end of the third and fourth quarters of the year ended December 31, 2008, the Company had additional triggering events that indicated impairments had occurred. In addition, the Company tested for impairment of its long-lived assets (principally property, plant and equipment and intangibles) in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets.*

The factors deemed by management to have collectively constituted impairment triggering events included a significant decrease in the Company's market capitalization as of its annual impairment date and as of December 31, 2008, which was significantly below the recorded value of its consolidated net assets, and a significant decline in the current and forecasted business levels. As a result of the impairment assessments, the

Company recorded goodwill impairment charges of $379.8 million and $94.0 million in the third and fourth quarters, respectively, of the year ended December 31, 2008.

Goodwill

The Company assesses goodwill for impairment annually as of August 31, and when an event occurs or circumstances change that would indicate that the asset might be impaired. Goodwill is tested for impairment using a two-step process. In the first step, the fair value of the reporting unit is compared to its carrying value. For purposes of assessing impairment under SFAS No. 142, the Company is a single reporting unit. If the fair value of the reporting unit exceeds the carrying value of its net assets, goodwill is considered not impaired, and no further testing is required. If the carrying value of the net assets exceeds the fair value of the reporting unit, a second step of the impairment assessment is performed in order to determine the implied fair value of a reporting unit's goodwill. Determining the implied fair value of goodwill requires a valuation of the reporting unit's tangible and intangible assets and liabilities in a manner similar to the allocation of purchase price in a business combination. If the carrying value of the reporting unit's goodwill exceeds the implied fair value of its goodwill, goodwill is deemed impaired and is written down to the extent of the difference.

Throughout fiscal 2008, the Company experienced a sustained and significant decline in its stock price. As a result of the decline in stock price and a significant decline in the current and forecasted business level, the Company's market capitalization fell significantly below the recorded value of its consolidated net assets.

Based on the results of the Company's initial assessment of impairment of its goodwill (step 1), it was determined that the consolidated carrying value of the Company exceeded its estimated fair value. Therefore, the Company performed a second step of the impairment assessment to determine the implied fair value of goodwill. In performing the goodwill assessment, the Company used current market capitalization, discounted cash flows and other factors as the best evidence of fair value. There are inherent uncertainties and management judgment required in an analysis of goodwill impairment. The Company performed the assessment of impairment of its goodwill twice during the year, once during the third quarter, resulting in write-off of $379.8 million, and during the fourth quarter, resulting in the write-off of the Company's remaining goodwill of $94.0 million.

Long-Lived Assets

In accordance with SFAS No. 144, the Company reviews its long-lived assets whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. If the carrying amount of an asset or group of assets exceeds its fair value, the asset will be written down to its fair value. In connection with the triggering events discussed above, during the third and fourth quarters of fiscal year 2008 the Company reviewed its long-lived assets and determined that none of its long-lived assets were impaired for its asset groups. The determination was based on reviewing estimated undiscounted cash flows for the Company's asset groups, which were greater than their carrying values. As required under U.S. generally accepted accounting principles, the SFAS No. 144 impairment analysis occurred before the SFAS No. 142 goodwill impairment assessment.

The evaluation of the recoverability of long-lived assets requires the Company to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to, the identification of the asset group at the lowest level of independent cash flows and the primary asset of the group; and long-range forecasts of revenue, reflecting management's assessment of general economic and industry conditions, operating income, depreciation and amortization and working capital requirements.

Due to the inherent uncertainty involved in making these estimates, particularly in the current economic environment and plan for a recovery, actual results could differ from those estimates. In addition, changes in the underlying assumptions would have a significant impact on the conclusion that an asset group's carrying value is recoverable, or the determination of any impairment charge if it was determined that the asset values were indeed impaired.

Due to the decline in the Company's market capitalization and the uncertain economic environment within the semiconductor industry, the Company will continue to monitor circumstances and events in future periods to determine whether additional asset impairment testing is warranted. It is not unlikely that in the future the Company may no longer be able to conclude that there is no impairment of its long-lived assets, nor can the Company provide assurance that material impairment charges of long-lived assets will not occur in future periods.

(3) ACQUISITIONS AND DIVESTITURES

On August 11, 2008, Entegris acquired Poco Graphite, Inc (POCO). Based in Decatur, Texas, POCO is a leading provider of process-critical, graphite-based consumables and finished products used in a variety of markets, including semiconductor, EDM (electrical discharge machining), medical, opto-electronic, aerospace and specialty industrial. The intent of the acquisition was to extend the Company's position in the semiconductor market and to add new complementary growth opportunities in other high-performance industries.

The Company paid cash consideration of $162.9 million for POCO, including transaction costs of $1.3 million. The transaction is subject to extensive escrow fund arrangements, portions of which remain in place to various dates through August 2013, totaling $24.0 million to secure certain environmental and export compliance obligations of the POCO sellers. This acquisition was accounted for under the purchase method of accounting. The Company's consolidated financial statements for the year ended December 31, 2008 include the net assets, recorded at their fair value, and results of operations of POCO from August 11, 2008, the date of acquisition. Pro forma results are not presented since this acquisition did not constitute a material business combination.

Allocation of Purchase Price

The purchase price for POCO has been preliminarily allocated based on the fair values of assets acquired and liabilities assumed. The final valuation of net assets is expected to be completed as soon as possible, but no later than one year from the acquisition date. Given the size and complexity of the acquisition, the fair valuation of certain net assets and liabilities is still being finalized. The following table presents the preliminary allocation of purchase price.

(In thousands)	
Book value of tangible net assets acquired	$ 55,354
Remaining allocation:	
Increase inventories to fair value[a]	16,989
Increase property, plant and equipment to fair value[b]	10,546
Record identifiable intangible assets[c]	36,400
Decrease other net assets to fair value	(754)
Adjustments to tax-related assets and liabilities[d]	(21,576)
Goodwill[e]	65,893
Purchase price	$162,852

The following table summarizes the allocation of the POCO purchase price to the fair values of the assets acquired and liabilities assumed:

(In thousands)	
Accounts receivable, inventories and other assets	$ 58,456
Property, plant and equipment	35,786
Intangible assets	36,400
Goodwill	65,893
Total assets acquired	196,535
Current liabilities	(6,839)
Deferred tax liabilities	(26,844)
Total liabilities assumed	(33,683)
Net assets acquired	$162,852

(a) The fair value of acquired inventories was determined as follows:

- Finished goods—the estimated selling price less the cost of disposal and reasonable profit for the selling effort.
- Work in process—the estimated selling price of finished goods less the cost to complete, cost of disposal and reasonable profit on the selling and remaining manufacturing efforts.
- Raw materials—estimated current replacement cost, which equaled POCO's historical cost.

The increase in inventories to record the fair values of finished goods and work in process was as follows:

(In thousands)	
Finished goods	$ 5,847
Work in process	11,142
Total	$ 16,989

(b) The fair value of acquired property, plant and equipment was valued at its value-in-use.

(c) The Company worked with independent valuation specialists to determine the fair value of identifiable intangible assets, which were as follows:

(In thousands)	Fair value	Useful life in years	Weighted average life in years
Developed technology	$18,500	10	10
Trade names	6,500	15	15
Customer relationships	11,300	15	15
Noncompete covenant	100	2	2
Total	$36,400		

The total weighted average life of identifiable intangible assets acquired from POCO that are subject to amortization is 12.4 years.

Developed technology represents the technical processes, intellectual property, and institutional understanding that were acquired with the POCO acquisition with respect to products, compounds and/or processes for which development had been completed.

The fair value of identifiable intangible assets was determined using the "income approach." This method starts with a forecast of expected future net cash flows. These net cash flow projections do not anticipate any revenue or cost synergies. These cash flows are then adjusted to present value by applying an appropriate discount rate that reflects the risk factors associated with the cash flow streams, some of which are more certain than others.

The valuations were based on the information that was available as of the acquisition date and the expectations and assumptions that have been deemed reasonable by the Company's management. No assurance can be given, however, that the underlying assumptions or events associated with such assets will occur as projected. For these reasons, among others, the actual results may vary from the projected results.

(d) Gives the effect of the estimated tax effects of the acquisition.

(e) In accordance with the requirements of SFAS No. 142, *Goodwill and Other Intangible Assets* (SFAS No.142), the goodwill associated with the merger will not be amortized. None of the goodwill is deductible for tax purposes. The goodwill was analyzed for impairment and written off in 2008. See Note 2 to the consolidated financial statements.

Acquisition of Specialty Coatings business

On August 16, 2007, the Company acquired the specialty coatings business of a privately held company located in Burlington, Massachusetts. This specialty coatings business develops and applies proprietary low-temperature, high-purity coatings to critical wafer handling components used in ion implant operations as well as to other critical components used in semiconductor manufacturing and other applications.

The purchase price was $44.9 million in cash, including transaction costs of $0.2 million and contingent consideration of $3.1 million paid to the seller as certain financial metrics related to calendar 2007 results were met. This acquisition was accounted for under the purchase method of accounting and the results of operations of this specialty coatings business are included in the Company's consolidated financial statements since August 16, 2007. Pro forma results are not presented as this acquisition did not constitute a material business combination.

The above purchase price has been allocated to the fair values of assets acquired and liabilities assumed as summarized in the table below.

(In thousands)	
Inventory	$ 1,478
Equipment	600
Other intangible assets	26,500
Goodwill	16,633
Total assets acquired	$45,211
Current liabilities	(300)
Net assets acquired	$44,911

The amount allocated to acquired inventories above replacement cost was $0.8 million. Accordingly, the results of operations for the year ended December 31, 2007 include an incremental charge of $0.8 million in cost of sales.

The $26.5 million of other intangible assets included $16.1 million of customer relationships (12-year economic consumption life), $10.0 million of developed technologies (12-year economic consumption life), and $0.4 million of employment and non-competition agreements (2.4-year average economic consumption life). These intangible assets were valued at fair value as determined by the Company with the assistance of an independent valuation specialist.

The goodwill recorded in connection with the acquisition will not be amortized, but is deductible for tax purposes. The goodwill was analyzed for impairment and written off in 2008. See Note 2 to the consolidated financial statements.

Divestitures and Discontinued Operations

In June 2007, the Company announced its intent to divest its cleaning equipment business. The cleaning equipment business sold precision cleaning systems to semiconductor and hard disk drive customers for use in their manufacturing operations. In conjunction with the establishment of management's plan to sell the cleaning equipment business, the fair value of the assets of that business was tested for impairment and, where applicable, adjusted to fair value less costs to sell. The Company sold the operating assets of the cleaning equipment business in April 2008 for proceeds of $0.7 million, essentially equal to the carrying value of the assets sold.

On September 12, 2005, the Company announced that it would divest its gas delivery, life science and tape and reel product lines. The gas delivery products included mass flow controllers, pressure controllers and vacuum gauges that are used by customers in manufacturing operations to measure and control process gas flow rates and to control and monitor pressure and vacuum levels during the semiconductor manufacturing process. The life sciences products included stainless steel clean in place systems for life sciences applications. Tape and reel products included the Stream™ product line, which is a packaging system designed to protect and transport microelectronic components, while enabling the high-speed automated placement of the components onto printed circuit boards used for electronics.

The assets and liabilities of the life sciences product line and the assets of the tape and reel product line were sold in December 2005 for net proceeds of $0.8 million and $1.0 million, respectively. The Company closed the sale of the gas delivery assets in February 2006. After adjustments for severance, sublease payments and other closing costs, the net proceeds of the sale totaled $13.1 million. As part of the purchase accounting allocation of the acquisition of Mykrolis, the fair values of the assets of the gas delivery product line were classified as assets held for sale as of the date of the August 6, 2005 acquisition. Accordingly, the Company adjusted its purchase price allocation related to the assets of the gas delivery product line and did not recognize a gain or loss from the sale.

The consolidated financial statements have been reclassified to segregate as discontinued operations the assets and liabilities, and operating results of, the product lines divested for all periods presented. The summary of operating results from discontinued operations for the years ended December 31, 2008, 2007 and 2006 is as follows:

(In thousands)	2008	2007	2006
Net sales	$ 4,460	$ 4,891	$ 9,227
Loss from discontinued operations, before income taxes	$(1,040)	$(3,996)	$(1,906)
Income tax (expense) benefit	(65)	1,999	2,221
(Loss) income from discontinued operations, net of taxes	$(1,105)	$(1,997)	$ 315

Net liabilities of discontinued operations at December 31, 2007 consisted of the following:

(In thousands)	2007
Accounts receivable	$ 276
Inventory	3,029
Assets held for sale	882
Total assets of discontinued operations	4,187
Total liabilities associated with discontinued operations	4,225
Net liabilities of discontinued operations	$ (38)

No interest expense was allocated to the operating results of discontinued operations. The after-tax earnings of discontinued operations in the year ended December 31, 2006 included a tax benefit of $1.6 million associated with a decrease in the Company's deferred tax asset valuation allowance resulting from the resolution of a matter with respect to the characterization of certain gains and losses.

Assets of discontinued operations and other assets held for sale shown in the consolidated balance sheet as of December 31, 2008 include a building located in Gilroy, California unrelated to the cleaning equipment business held for sale and carried at $2.5 million. Assets of discontinued operations and other assets held for sale shown in the consolidated balance sheet as of December 31, 2007 include the net assets of the cleaning equipment business carried at $4.2 million.

(4) ACCOUNTS RECEIVABLE

Accounts receivable and notes receivable from customers at December 31, 2008 and 2007 consist of the following:

(In thousands)	2008	2007
Accounts receivable	$ 59,326	$ 99,236
Notes receivable	12,521	13,316
	71,847	112,552
Less allowance for doubtful accounts	1,312	499
	$ 70,535	$ 112,053

(5) INVENTORIES

Inventories at December 31, 2008 and 2007 consist of the following:

(In thousands)	2008	2007
Raw materials	$ 24,922	$ 21,237
Work-in-process	16,498	3,496
Finished goods[(a)]	59,954	47,455
Supplies	815	932
	$ 102,189	$ 73,120

(a) Includes consignment inventories held by customers for $4,465 and $6,428 at December 31, 2008 and 2007 respectively.

(6) PROPERTY, PLANT AND EQUIPMENT

Property, plant, and equipment at December 31, 2008 and 2007 consist of the following:

(In thousands)	2008	2007	Estimated useful lives in years
Land	$ 12,560	$ 10,826	
Buildings and improvements	78,960	72,001	5-35
Manufacturing equipment	138,505	100,319	5-10
Molds	81,593	85,669	3-5
Office furniture and equipment	56,101	63,611	3-8
	367,719	332,426	
Less accumulated depreciation	207,981	211,269	
	$159,738	$121,157	

Depreciation expense for the years ended December 31, 2008, 2007, and 2006, was $26.8 million, $24.9 million, and $25.3 million, respectively. The Company recorded asset impairment write-offs on molds and equipment due to abandonment of approximately $1.4 million, $4.1 million, and $1.5 million for the fiscal years ended December 31, 2008, 2007 and 2006, respectively. All impairment losses are included in cost of sales.

(7) INVESTMENTS

At December 31, 2008 and 2007, the Company held equity investments totaling $14.0 million and $13.9 million, respectively. These investments all represent interests in privately held companies. Investments representing $10.3 million of the total at December 31, 2008 are accounted for under the equity method of accounting, with the remaining $3.7 million accounted for under the cost method.

During 2008, the Company invested $11.0 million in equity investments. Also in 2008, the Company determined that four of its investments were partially or totally impaired. The Company recorded impairment losses of $11.1 million that were classified as other expense. During 2007, the Company recorded other income of $6.1 million on the sale of the Company's interest in a privately held equity investment with a carrying value of $0.5 million accounted for using the cost method. Proceeds from the sale totaled $6.6 million.

(8) INTANGIBLE ASSETS

As of December 31, 2008, the Company recognized no goodwill on its consolidated balance sheet. The reduction from $402.1 million balance reflected at December 31, 2007 mainly reflects the $473.8 million impairment charge recorded during the year (See Note 2 for further discussion). The impairment charge and other changes to goodwill are reflected in the table below.

The changes in the carrying amount of goodwill for the years ended December 31, 2008 and 2007 are as follows:

(In thousands)	2008	2007
Beginning of period	$ 402,125	$394,531
Acquisition of specialty coatings business	—	16,633
Acquisition of POCO Graphite, Inc.	65,893	—
Adjustments to Mykrolis purchase price allocation	(822)	(6,981)
Adjustments to specialty coatings acquisition purchase price allocation	59	—
Impairment of goodwill associated with assets held for sale	—	(408)
Other, including foreign currency translation	6,544	(1,650)
Impairment charge	(473,799)	—
End of year	$ —	$402,125

As of December 31, 2008, goodwill amounted to zero, a decrease of $402.1 million from the balance at December 31, 2007. The decrease mainly reflects the $473.8 million impairment charge as discussed above.

Other intangible assets, excluding goodwill, at December 31, 2008 and 2007 consist of the following:

	2008			
(In thousands)	Gross carrying amount	Accumulated amortization	Net carrying value	Weighted average life in years
Patents	$ 17,855	$ 15,218	$ 2,637	9.1
Developed technology	74,988	36,742	38,246	7.5
Trademarks and trade names	15,500	6,872	8,628	9.1
Customer relationships	55,400	12,595	42,805	11.1
Employment and noncompete agreements	3,507	3,215	292	4.6
Other	4,157	3,626	531	5.6
	$ 171,407	$ 78,268	$ 93,139	8.9

	2007			
(In thousands)	Gross carrying amount	Accumulated amortization	Net carrying value	Weighted average life in years
Patents	$ 17,855	$ 13,323	$ 4,532	9.1
Developed technology	56,488	26,203	30,285	6.6
Trademarks and trade names	9,000	5,513	3,487	4.9
Customer relationships	44,100	7,888	36,212	10.2
Employment and noncompete agreements	3,407	2,893	514	4.7
Other	4,203	2,863	1,340	5.6
	$ 135,053	$ 58,683	$ 76,370	7.9

Amortization expense was $19.6 million, $18.9 million, $17.6 million in the fiscal years ended December 31, 2008, 2007 and 2006, respectively.

Estimated amortization expense for the fiscal years 2009 to 2013, and thereafter, is $19.0 million, $12.9 million, $9.6 million, $9.0 million, $8.4 million, and $34.3 million, respectively.

(9) ACCRUED LIABILITIES

Accrued liabilities at December 31, 2008 and 2007 consist of the following:

(In thousands)	2008	2007
Payroll and related benefits	$ 19,601	$ 29,915
Employee benefits	1,868	4,664
Taxes, other than income taxes	823	3,135
Royalties	1	1,568
Interest	1,734	1,692
Warranty and related	1,112	1,306
Other	11,832	15,377
	$ 36,971	$ 57,657

(10) WARRANTY

The Company accrues for warranty costs based on historical trends and the expected material and labor costs to provide warranty services. The majority of products sold are generally covered by a warranty for periods ranging from 30 days to one year. The following table summarizes the activity related to the product warranty liability during the fiscal years ended December 31, 2008, 2007 and 2006:

(In thousands)	2008	2007	2006
Beginning of year	$ 1,306	$ 1,824	$ 1,795
Accrual for warranties issued during the period	2,221	1,742	2,042
Adjustment of previously recorded accruals	(878)	(1,170)	(21)
Settlements during the year	(1,537)	(1,090)	(1,992)
End of year	$ 1,112	$ 1,306	$ 1,824

(11) FINANCING ARRANGEMENTS

Short-term borrowings at December 31, 2008 and 2007 consist of the following:

(In thousands)	2008	2007
Bank borrowings, denominated in Japanese yen with an average interest rate of 1.28%	$—	$17,802
Total short-term borrowings	$—	$17,802

Long-term debt at December 31, 2008 and 2007 consists of the following:

(In thousands)	2008	2007
Revolving credit agreement with interest of LIBOR rate plus a LIBOR margin ranging from 1% to 1.5% through 2013	$ 139,000	$ —
Bank loan denominated in Japanese yen with interest of 1.43% through 2010	22,128	26,702
Stock redemption notes payable with interest of 8% through December 2010	835	1,223
Small Business Administration loans with interest ranging from 5.5% to 7.35% and various maturities through July 2010	1,719	1,758
Total long-term debt	163,682	29,683
Less current maturities of long-term debt	13,166	9,310
Long-term debt less current maturities	$ 150,516	$ 20,373

Annual maturities of long-term debt as of December 31, 2008, are as follows:

Fiscal year ending	*(In thousands)*
2009	$ 13,166
2010	11,516
2011	—
2012	—
2013	139,000
Thereafter	—
	$ 163,682

On February 15, 2008, the Company entered into a credit agreement with Wells Fargo Bank National Association, as agent, and certain other banks. The agreement provided for a $230 million revolving credit facility (the Facility) for a period of five years with an uncommitted option to expand the Facility by up to $20 million provided that no default or event of default has occurred or is continuing at such time. The Facility replaced the Company's credit agreement executed in 2007 between the Company and Wells Fargo Bank National Association, as agent, and certain other banks. Under the Facility, the Company generally may elect that the loans comprising each borrowing bear interest at a rate per annum equal to (a) the Base Rate equal to the higher of the Prime Rate then in effect and the Federal Funds Rate then in effect, plus 0.50% or (b) a LIBOR rate plus a LIBOR Margin ranging from 1.00% to 1.50% depending on leverage. The Company borrowed $168.0 million under the Facility during the year ended December 31, 2008 with $139.0 million outstanding at the end of the period.

The Facility is guaranteed by the Company's material direct and indirect subsidiaries that are treated as domestic for tax purposes. In addition, the Company is obligated to pledge 65% of the stock of each material subsidiary which is treated as foreign for tax purposes and owned by a domestic entity. The Facility requires that the Company comply on a quarterly basis with certain financial covenants, including leverage and interest coverage ratio covenants. In addition, the Facility includes negative covenants, subject to exceptions, restricting or limiting the Company's ability and the ability of its subsidiaries to, among other things, sell assets, engage in mergers, acquisitions and other business combinations, declare dividends or redeem or repurchase capital stock. The Facility also contains customary representations, warranties, covenants and events of default.

As described in Note 23, the Company executed a new domestic credit agreement in February 2009, which expires in November 2011, with initial and maximum borrowing capacities of $139 million and $150 million, respectively.

A global credit market crisis has created a very difficult business environment. These conditions have generally worsened since October 2008. The Company's operating performance, as well as its liquidity position, has been and continues to be negatively affected by these economic conditions, many of which are beyond its control. The

Company does not believe it is likely that these adverse economic conditions, and their effect on the semiconductor industry, will improve significantly in the near term. However, the effect of current global economic environment on the semiconductor industry requires that the Company maintain its near-term liquidity support.

The amended credit facility requires that the Company meet various financial covenants. If the Company's future financial performance fails to meet these financial covenants, then its lenders may take control of the Company's cash receipts from the collection of its receivables as well as certain other assets. In this event, the Company's ability to conduct business could be severely impeded as there can be no assurance that funds adequate in amounts and timing will be available to meet the Company's liquidity requirements.

The Company plans to manage its business during this time through a series of operating measures designed to reduce expenditures and to generate incremental cash flow through asset management initiatives. If the economic environment does not improve in 2009, the Company's planned and initiated actions may not be sufficient and could lead to possibly failing the financial debt covenants required under the amended credit facility.

During the fourth quarter of 2007, the Company executed a 3.0 billion yen ($26.7 million) unsecured term note agreement with a Japanese bank. Under the note agreement, the Company will make semi-annual payments in May and November each year of 500 million yen ($4.7 million) through November 2010, along with interest at a rate of 1.43%. Borrowings outstanding under this agreement at December 31, 2008 and December 31, 2007 were $22.1 million and $26.7 million, respectively.

The Company has entered into unsecured line of credit agreements, which expire at various dates, with three international commercial banks, which provide for aggregate borrowings of 10.5 million Malaysia ringgits and 1.5 billion Japanese yen for its foreign subsidiaries, which is equivalent to $19.6 million as of December 31, 2008. Interest rates for these facilities are based on a factor of the banks' reference rates. Borrowings outstanding under international line of credit agreements at December 31, 2008 and December 31, 2007, were none and $17.8 million, respectively.

(12) LEASE COMMITMENTS

As of December 31, 2008, the Company was obligated under noncancellable operating lease agreements for certain sales offices and manufacturing facilities, manufacturing equipment, vehicles, information technology equipment and warehouse space. Future minimum lease payments for noncancellable operating leases with initial or remaining terms in excess of one year are as follows:

Fiscal year ending December 31	*(In thousands)*
2009	$ 8,574
2010	6,522
2011	3,380
2012	3,001
2013	2,752
Thereafter	2,062
Total minimum lease payments	$ 26,291

Total rental expense for all equipment and building operating leases for the fiscal years ended December 31, 2008, 2007, and 2006, were $12.3 million, $14.0 million, $13.7 million, respectively.

(13) RESTRUCTURING COSTS

For the years ended December 31, 2008, 2007, and 2006, the accrued liabilities, provisions and payments associated with the employee severance and retention costs of the Company's restructuring activities were as follows:

(In thousands)	2008	2007	2006
Accrued liabilities at beginning of period	$ 6,209	$ 6,497	$ 568
Provision	16,552	7,980	10,224
Payments	(9,271)	(8,268)	(4,295)
Accrued liabilities at end of period	$13,490	$ 6,209	$ 6,497

Global restructuring initiatives

In order to adjust the Company's operations to changing business conditions in March 2008, the Company terminated approximately 75 employees. In connection with these reductions, the Company recorded severance charges of $4.8 million in the year ended December 31, 2008 related to employee severance and retention costs (generally over the employees' required remaining term of service) that are primarily classified as selling, general and administrative expenses.

In the third quarter of 2008, the Company announced the appointment of a new Chief Operating Officer. In conjunction with this change in executive management, the Company initiated a global business restructuring of its sales and marketing function, manufacturing operations, and realignment of the global supply chain and other ancillary operational functions. Related to these cost reduction initiatives, the Company announced on November 4, 2008 that it will close the larger of its two manufacturing facilities in Chaska, Minnesota and will transfer production to its other existing facilities. The closure, which will impact approximately 200 jobs or approximately 7% of the Company's worldwide workforce, is expected to be completed in 2009. Associated with these changes, the Company recorded $10.4 million in the year ended December 31, 2008 related to employee severance and retention costs (generally over the employees' required remaining term of service) that are classified as restructuring charges. In addition, other costs of $0.2 million related to accelerated depreciation expense classified in cost of sales was recorded for the year ended December 31, 2008. As part of the business restructuring, the Company intends to take further steps to reduce its operating expenses through 2009.

Gilroy Cleaning Service Facility

In November 2007, the Company announced that it would close its cleaning service facility in Gilroy, California and relocate certain equipment to other existing manufacturing plants located in Asia, Europe, and the United States. In connection with this action, the Company recorded charges of $0.1 million and $3.8 million for the years ended December 31, 2008 and 2007, respectively, for employee severance and retention costs (generally over the employees' required remaining term of service) and asset impairment and accelerated depreciation expense.

Severance and retention costs, mainly classified as selling, general and administrative expense, totaled $0.1 million and $0.7 million for years ended December 31, 2008 and 2007, respectively. Other costs of $45,000 and $3.1 million related to fixed asset write-offs, classified in cost of sales, were also recorded for years ended December 31, 2008 and 2007, respectively.

The Company's facility in Gilroy became available for sale during the first quarter ended March 29, 2008 and was classified in assets held for sale at December 31, 2008 at a carrying value of $2.5 million.

Bad Rappenau Facility

In November 2005, the Company announced that during 2006 it would close its manufacturing plant located in Bad Rappenau, Germany and relocate the production of products made in that facility to other existing manufacturing plants located in the United States and Asia. In addition, the Company moved its Bad Rappenau administrative center to Dresden, Germany. In connection with these actions, the Company incurred charges of $7.5 million for employee severance and retention costs (generally over the employees' required remaining term of service) and asset impairment and accelerated depreciation.

Severance and retention costs, mainly classified as selling, general and administrative expense, totaled $(0.2) million and $4.4 million for the years ended December 31, 2007 and 2006, respectively. Other costs of $0.4 million and $1.2 million, related to fixed asset write-offs and accelerated depreciation classified in cost of sales, were also recorded for the years ended December 31, 2007 and 2006, respectively.

The Company's facility in Bad Rappenau became available for sale during the third quarter of 2006 and was classified in assets held for sale as of December 31, 2006 at a carrying value of $2.2 million. During the second quarter of 2007, the Company sold the facility for $1.9 million.

(14) INTEREST (EXPENSE) INCOME, NET

Interest income, net for the years ended December 31, 2008, 2007 and 2006 consists of the following:

(In thousands)	2008	2007	2006
Interest income	$ 1,796	$ 7,815	$9,668
Interest expense	(2,814)	(2,570)	(463)
Interest (expense) income, net	$(1,018)	$ 5,245	$9,205

(15) OTHER INCOME (EXPENSE), NET

Other income (expense), net for the years ended December 31, 2008, 2007 and 2006 consists of the following:

(In thousands)	2008	2007	2006
(Loss) gain on foreign currency remeasurement	$ (4,442)	$1,196	$ 794
Gain on sale of equity investments	—	6,068	—
Impairment loss on equity investments	(11,102)	—	—
Other, net	58	392	864
Other (expense) income, net	$(15,486)	$7,656	$1,658

(16) INCOME TAXES

(Loss) income before income taxes for the years ended December 31, 2008, 2007 and 2006 was derived from the following sources:

(In thousands)	2008	2007	2006
Domestic	(511,412)	$ 2,563	$ 46,864
Foreign	14,999	54,056	42,692
(Loss) income before income taxes	(496,413)	$56,619	$ 89,556

Income tax expense for the years ended December 31, 2008, 2007 and 2006 is summarized as follows:

(In thousands)	2008	2007	2006
Current:			
Federal	$ (104)	6,612	$ 923
State	(608)	3,122	1,115
Foreign	4,263	21,056	13,474
	3,551	30,790	15,512
Deferred (net of valuation allowance):			
Federal	11,124	(18,974)	13,038
State	(1,879)	(72)	610
Foreign	6,405	(1,388)	(2,224)
	15,650	(20,434)	11,424
Income tax expense	$19,201	$ 10,356	$26,936

Income tax (benefit) expense differs from the expected amounts based upon the statutory federal tax rates for the years ended December 31, 2008, 2007, and 2006 as follows:

(In thousands)	2008	2007	2006
Expected federal income tax at statutory rate	(173,746)	19,817	$31,344
State income taxes before valuation allowance, net of federal tax effect	(3,128)	1,983	1,131
Effect of foreign source income	1,416	(2,637)	(4,671)
Goodwill impairment	147,811	—	—
Tax effect of foreign dividend	3,594	(11,175)	—
Valuation allowance	42,093	—	—
Other items, net	1,161	2,368	(868)
Income tax expense (benefit)	$ 19,201	$ 10,356	$26,936

During 2008, the Company recorded a $42.7 million valuation allowance against its deferred tax assets, of which $0.6 million is related to discontinued operations. The Company carried no valuation allowance against these deferred tax assets at December 31, 2007. The unrecognized deferred tax assets relate primarily to net operating loss carryovers, general business credit carryovers, and tax credits carryforwards.

Generally, the provisions of SFAS No. 109, *Accounting for Income Taxes* require deferred tax assets to be reduced by a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. SFAS No. 109 requires an assessment of all available evidence, both positive and negative, to determine the amount of any required valuation allowance.

As a result of the recent general economic and industry declines, and their impact on the Company's future outlook, management has reviewed its deferred tax assets and concluded that the uncertainties related to the realization of its assets have become unfavorable. As of December 31, 2008 the Company has a U.S. net deferred tax asset position of $42.3 million which is composed of temporary differences and various credit carryforwards. Management has considered the positive and negative evidence for the potential utilization of the net deferred tax asset based upon an application of the principles of SFAS No. 109 and related accounting pronouncements. Management has concluded that it is not more likely than not that the Company will realize the net deferred tax asset and thus is required to provide an allowance for a portion of the net deferred tax assets management has concluded will not be utilized. As a result, the Company recorded a deferred tax asset valuation allowance of $42.1 million against U.S. deferred tax assets, which is included in income tax expense from continuing and discontinued operations for 2008.

As of December 31, 2008 the Company had a net non-U.S. deferred tax asset position of $12.5 million before valuation allowance. During the fourth quarter of fiscal year 2008, management determined that based upon the available evidence, a valuation allowance was required against non-U.S. deferred tax assets in certain jurisdictions. The establishment of a valuation allowance of approximately $0.6 million was recorded as an increase to income tax expense. For other non-U.S. jurisdictions, management believes that it is more likely than not that the net deferred tax assets will be realized.

As a result of commitments made by the Company related to investments in tangible property and equipment (approximately $43 million by December 31, 2010), the establishment of a research and development center in 2006 and certain employment commitments through 2010, income from certain manufacturing activities in Malaysia is exempt from tax for years up through 2015. The income tax benefits attributable to the tax status of this subsidiary are estimated to be none, $2.1 million (2 cents per diluted share) and $2.8 million (2 cents per diluted share for the years ended December 31, 2008, 2007 and 2006, respectively.

$0.2 million and $2.8 million was added to additional paid-in capital in accordance with SFAS No. 123(R) reflecting tax differences relating to employee stock option and restricted stock award transactions for the years ended December 31, 2007 and 2006, respectively. $2.5 million was charged to additional paid-in capital in accordance with SFAS No. 123(R) reflecting tax differences relating to employee stock option and restricted stock award transactions for the year ended December 31, 2008.

Goodwill was reduced by $0.8 million and $7.0 million in 2008 and 2007, respectively, largely due to the determination that tax contingencies established in connection with the Mykrolis acquisition were no longer necessary.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2008 and 2007 are as follows:

(In thousands)	2008	2007
Deferred tax assets attributable to:		
Accounts receivable	$ 760	$ 837
Inventory	3,305	3,535
Intercompany profit	1,896	6,188
Accruals not currently deductible for tax purposes	12,212	12,206
Net operating loss and credit carryforwards	26,742	31,506
Depreciation	4,501	5,308
Equity compensation	2,957	5,764
Asset impairments	4,024	—
Other, net	5,777	2,819
Gross deferred tax assets	62,174	68,163
Valuation allowance	(42,676)	—
Total deferred tax assets	19,498	68,163
Deferred tax liabilities attributable to:		
Repatriation reserve	3,628	—
Purchased intangible assets	5,450	19,045
Total deferred tax liabilities	9,078	19,045
Net deferred tax assets	$ 10,420	$49,118

In, 2007, the Company's Japanese subsidiary, Nihon Entegris KK (NEKK) declared and paid a dividend of 6.8 billon yen (approximately U.S. $60 million) and loaned 4.6 billion yen (approximately U.S. $40 million) to the Company. The dividend and loan were funded from available cash and lines of credit established with Japanese banks. Prior to the declaration of the dividend, the accumulated undistributed earnings of NEKK were considered to be reinvested indefinitely as allowed by the provisions of Accounting Principles Board (APB) Opinion No. 23, *Accounting for Income Taxes—Special Areas*, as amended by SFAS No. 109 (APB No.23), such that no U.S. tax effect had been provided with respect to such accumulated undistributed NEKK earnings. The dividend and loan transactions resulted in a recharacterization of $100 million of NEKK's accumulated undistributed earnings as no longer being indefinitely reinvested, resulting in a 2007 U.S. tax benefit of approximately $9.4 million after reduction for state taxes of $1.9 million.

On December 24, 2008, NEKK loaned 2.0 billon yen (approximately U.S. $22 million) to the Company. The loan was funded from available cash and lines of credit established with Japanese banks. Prior to this loan, $56.3 million of the accumulated undistributed earnings of NEKK were considered to be reinvested indefinitely as allowed by the provisions of APB No. 23, such that no U.S. tax effect had been provided with respect to such accumulated undistributed NEKK earnings. The loan transaction resulted in a recharacterization of $22 million of NEKK's accumulated undistributed earnings as no longer being indefinitely reinvested.

At December 31, 2008, there were approximately $125.7 million of accumulated undistributed earnings of subsidiaries outside the United States that are considered to be reinvested indefinitely. Management has considered its future cash needs and affirms its intention to indefinitely invest such earnings overseas to be utilized for working capital purposes, expansion of existing operations, possible acquisitions and servicing local bank debt. No U.S. tax has been provided on such earnings. If they were remitted to the Company, applicable U.S. federal and foreign withholding taxes may be partially offset by available foreign tax credits. Management has concluded that it is impracticable to compute the full actual tax impact, but it has estimated that $4.2 million of withholding taxes would be incurred if the $125.7 million were distributed.

At December 31, 2008, the Company had state operating loss carryforwards of approximately $0.3 million, which begin to expire in 2011; foreign tax credit carryforwards of approximately $25.3 million, which expire in 2018; alternative minimum tax credit carryforwards of approximately $0.4 million; federal research tax credit carryforwards of approximately $2.4 million, which begin to expire in 2021; and foreign operating loss carryforwards of $2.3 million, $1.8 million of which does not expire under current law and $0.5 million which expires in 2011.

The Company adopted the provisions of FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes, an Interpretation of FASB Statement 109," (FIN No. 48), effective January 1, 2007. FIN No. 48 prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Benefits from tax positions should be recognized in the financial statements only when it is more likely than not that the tax positions will be sustained upon examination by the appropriate taxing authority that would have full knowledge of all relevant information. A tax position that meets the more-likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Tax positions that previously failed to meet the more-likely-than-not recognition threshold should be recognized in the first subsequent financial reporting period in which that threshold is met. Previously recognized tax positions that no longer meet the more-likely-than-not recognition threshold should be derecognized in the first subsequent financial reporting period in which that threshold is no longer met. FIN No. 48 also provides guidance on the accounting for and disclosure of unrecognized tax benefits, interest and penalties.

Reconciliations of the beginning and ending balances of the total amounts of gross unrecognized tax benefits for the years ended December 31, 2008 and 2007 are as follows:

(In thousands)	2008	2007
Gross unrecognized tax benefits at beginning of year	$ 16,633	$11,679
Increases in tax positions for prior years	567	8,775
Decreases in tax positions for prior years	(10,563)	(4,919)
Increases in tax positions for current year	1,004	1,485
Settlements	(297)	(193)
Lapse in statute of limitations	(1,805)	(194)
Gross unrecognized tax benefits at end of year	$ 5,539	$16,633

The total amount of net unrecognized tax benefits that, if recognized, would affect the effective tax rate was $0.7 million at December 31, 2008.

The Company's policy for recording interest and penalties associated with audits is to record such items as a component of income before taxes. Penalties are recorded in "Other (gains) losses," and interest paid or received is recorded in interest expense or interest income, respectively, in the statement of income. For the years ended December 31, 2008 and 2007, the Company has accrued interest and penalties related to unrecognized tax benefits of $1.9 million and $3.1 million, respectively. $0.6 million and $0.5 million of interest and penalties were recognized in the statement of operations for the years ended December 31, 2008 and 2007, respectively.

The Company files income tax returns in the U.S. and in various state, local and foreign jurisdictions. The statute of limitations related to the consolidated Federal income tax return is closed for all years up to and including fiscal 2004. With respect to foreign jurisdictions, the statute of limitations varies from country to country, with the earliest open year for the Company's major foreign subsidiaries being 2003.

Due to the potential for resolution of foreign examinations, the expiration of various statutes of limitation, the filings for change in accounting methods and amended return filings, it is reasonably possible that the Company's gross unrecognized tax benefit balance may change within the next twelve months by approximately $0.8 million

(17) SHAREHOLDERS' EQUITY

Share Repurchase Program

On August 21, 2006, the Company's Board of Directors authorized a share repurchase program of up to $150 million over the succeeding 12 to 18 months. In connection with the share repurchase program the Company entered into an Accelerated Share Repurchase Agreement (ASRA) and a Collared Accelerated Share Repurchase Agreement (CASRA) with Goldman, Sachs & Co. (GS) on August 30, 2006. Under the ASRA, which was effective as of August 30, 2006, the Company acquired 4.7 million shares of common stock on September 5, 2006 from GS for $50.0 million, which was paid on September 5, 2006. The transaction was accounted for as a share retirement with common stock, paid-in capital and retained earnings reduced by $47 thousand, $28.2 million, and $21.7 million, respectively.

Under the CASRA, the Company paid $50.0 million for a prepaid forward contract, which was effective August 30, 2006, to repurchase the Company's common stock. The Company received deliveries of common stock of 3.0 million shares and 1.2 million shares on September 5, 2006 and October 6, 2006, respectively. The transaction was accounted for as a share retirement with common stock, paid-in capital and retained earnings reduced by $42 thousand, $25.2 million, and $19.8 million, respectively. $5.0 million of the $50.0 million payment was reflected as a prepaid forward contract for share repurchase in shareholders' equity, which was credited when the Company received additional shares under the CASRA.

The Company financed the ASRA and CASRA with its available cash equivalents and short-term investments. Under the terms of the ASRA and the CASRA, GS repurchased an equivalent number of shares in the open market from September 2006 through August 2007. Upon GS's completion of trading in August 2007, the Company's price under the ASRA was adjusted up based on the volume-weighted average price of the stock repurchased by GS, resulting in a cash payment to GS of $0.6 million in 2007, leaving $49.4 million remaining available for repurchases pursuant to the August 2006 authorization. Also in 2007, the Company received 0.4 million additional shares of common stock pursuant to the CASRA, based on the volume-weighted average price of the stock repurchased by GS.

In May 2007, the Company's Board of Directors authorized a self-tender offer program to acquire up to $250 million of the Company's common stock. A modified "Dutch Auction" tender offer began on May 11, 2007 and expired on June 8, 2007, and was subject to the terms and conditions described in the offering materials mailed to the Company's shareholders and filed with the Securities and Exchange Commission. The tender offer was completed on June 14, 2007 with the Company purchasing 21.1 million shares of its common stock at a price of $11.80 per share. The Company incurred $2.3 million in costs associated with the tender offer for a total cost of approximately $251.4 million.

In November 2007, the Company's Board of Directors authorized a Rule 10b-5-1 trading plan to acquire up to $49.4 million of the Company's common stock. The share buyback program, which commenced on December 1, 2007 and ended on August 1, 2008, was established in accordance with the provisions of Rule 10b5-1 and Rule 10b-18 under the Securities Exchange Act of 1934. Under the trading plan, the Company purchased 4.0 million and 0.5 million shares of its common stock in 2008 and 2007, respectively, at an average price of $7.28 and $8.99 per share in 2008 and 2007, respectively. The total cost of the purchases was $28.9 million and $4.1 million in 2008 and 2007, respectively.

Share-based Compensation Expense

The Company follows Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-Based Payment*, (SFAS 123(R)) which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors including employee stock options and employee stock purchases related to the Employee Stock Purchase Plan (employee stock purchases) to be based on estimated fair values. The Company adopted SFAS 123(R) as of August 28, 2005 using the modified prospective transition method. In accordance with the modified prospective transition method, the Company's consolidated financial statements for prior periods were not restated to reflect, and did not include, the impact of SFAS 123(R). Share-based compensation expense recorded under SFAS 123(R) for the years ended December 31, 2008, 2007 and 2006 was $7.4 million, $10.5 million and $14.8 million, respectively.

SFAS 123(R) requires companies to estimate the fair value of share-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods in the Company's consolidated statement of operations.

Share-based compensation expense is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. Share-based compensation expense recognized in the Company's Consolidated Statement of Operations for the years ended December 31, 2008, 2007 and 2006 includes compensation expense for share-based payment awards granted prior to, but not yet vested as of August 27, 2005 based on the grant date fair value estimated in accordance with the pro forma provisions of SFAS 123.

Share-based payment awards in the form of restricted stock awards for 0.8 million shares, 0.9 million shares, and 1.1 million shares were granted to employees during the years ended December 31, 2008, 2007 and 2006, respectively. Share-based payment awards in the form of stock awards subject to performance conditions for up to 0.5 million share, 0.9 million shares and 0.9 million shares were also granted to certain employees during the years ended December 31, 2008, 2007 and 2006, respectively.

Share-based payment awards in the form of stock option awards for 0.9 million options were granted to employees during the year ended December 31, 2008 with no stock options granted during the years ended December 31, 2007 and 2006. Compensation expense is based on the grant date fair value estimated in accordance with the provisions of SFAS 123(R).

In conjunction with the adoption of SFAS 123(R), the Company changed its method of attributing the value of share-based compensation to expense from the accelerated multiple-option approach to the straight-line single option method. Compensation expense for all share-based payment awards granted on or prior to August 27, 2005 is recognized using the accelerated multiple-option approach, while compensation expense for all share-based payment awards granted subsequent to August 27, 2005 is recognized using the straight-line single-option method. Because share-based compensation expense recognized in the Consolidated Statement of Operations for the years ended December 31, 2008, 2007 and 2006 is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. SFAS 123(R) requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

On November 10, 2005, the Financial Accounting Standards Board (FASB) issued FASB Staff Position No. FAS 123(R)- 3, *Transition Election Related to Accounting for Tax Effects of Share-Based Payment Awards* (FSP 123(R)-3). An entity could take up to one year from the effective date of FSP 123(R)-3 to evaluate its available transition alternatives and make its one-time election. The Company adopted the alternative transition method provided in the FASB Staff Position for calculating the tax effects of share-based compensation pursuant to SFAS 123(R). The alternative transition method includes simplified methods to establish the beginning balance of the additional paid-in capital pool (APIC pool) related to the tax effects of employee share-based compensation and to determine the subsequent impact on the APIC pool and consolidated statements of cash flows of the tax effects of employee share-based compensation awards that are outstanding upon adoption of SFAS 123(R).

Employee Stock Purchase Plan

The Company has the Entegris, Inc. Employee Stock Purchase Plan (ESPP). A total of 4.0 million common shares are reserved for issuance under the ESPP. The ESPP allows employees to elect, at six-month intervals, to contribute up to 10% of their compensation, subject to certain limitations, to purchase shares of common stock at the lower of 85% of the fair market value on the first day or last day of each six-month period. The Company treats the ESPP as a compensatory plan under SFAS 123(R). As of December 31, 2008, 1.6 million shares had been issued under the ESPP. At December 31, 2008, 2.4 million shares remained available for issuance under the ESPP. Employees purchased 0.3 million shares, 0.2 million shares, and 0.2 million shares, at a weighted-average price of $6.37, $8.63, and $8.06 during the years ended December 31, 2008, 2007 and 2006, respectively.

Employee Stock Option Plans

As of December 31, 2008, the Company had five stock incentive plans: the Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan (the 1999 Plan), the Entegris, Inc. Outside Directors' Option Plan (the Directors' Plan) and three former Mykrolis stock option plans assumed by the Company on August 10, 2005: The 2001 Equity Incentive Plan (the 2001 Plan), the 2003 Employment Inducement and Acquisition Stock Option Plan (the Employment Inducement Plan) and the 2001 Non-Employee Director Stock Option Plan (the 2001 Directors Plan). At present, the Company intends to issue new common shares upon the exercise of stock options under each of these plans. The plans are described in more detail below.

1999 Plan: The 1999 Plan provides for the issuance of share-based awards to selected employees, directors, and other persons (including both individuals and entities) who provide services to the Company or its affiliates. Under the 1999 Plan, the Board of Directors determines the number of shares for which each option is granted, the rate at which each option is exercisable and whether restrictions will be imposed on the shares subject to the awards. The term of options issued under the 1999 Plan has been ten years, generally exercisable ratably in 25% increments over the 48 months following grant, with exercise prices equal to 100% of the fair market value of the Company's common stock on the date of grant.

The Directors' Plan and the 2001 Directors Plan: The Directors' Plan provides for the grant to each outside director of an option to purchase 15,000 shares on the date the individual becomes a director and for the annual grant to each outside director, at the choice of the Directors' Plan administrator (defined as the Board of Directors or a committee of the Board), of either an option to purchase 9,000 shares, or a restricted stock award of up to 3,000 shares. Options are exercisable six months subsequent to the date of grant. Under the Directors' Plan, the term of options shall be ten years and the exercise price for shares shall not be less than 100% of the fair market value of the common stock on the date of grant of such option. The 2001 Directors Plan provides for the grant to each newly elected eligible director of options to purchase 15,000 shares of common stock on the date of his or her first election and for the annual grant of options to purchase 10,000 shares of common stock for each subsequent year of service as a director. The exercise price of the stock options may not be less than the fair market value of the stock at the date of grant. On August 10, 2005 the Company's Board of Directors determined that the equity compensation paid to non-employee directors would be an aggregate of 10,000 shares of restricted stock per annum, inclusive of the amounts specified in the above described plans.

2001 Plan: The 2001 Plan provides for the issuance of share-based awards to selected employees, directors, and other persons (including both individuals and entities) who provide services to the Company or its affiliates. The 2001 Plan has a term of ten years. Under the 2001 Plan, the Board of Directors determines the term of each option, option price, number of shares for which each option is granted, whether restrictions will be imposed on the shares subject to options, and the rate at which each option is exercisable. The exercise price for incentive stock options may not be less than the fair market value per share of the underlying common stock on the date granted (110% of fair market value in the case of holders of more than 10% of the voting stock of the Company). The 2001 Plan contains an "evergreen" provision, which increases the number of shares in the pool of options available for grant annually by 1% of the number of shares of common stock outstanding on the date of the Annual Meeting of Stockholders or such lesser amount determined by the Board of Directors. Under NASDAQ rules new grants and awards under the 2001 Plan may only be made to employees and directors of the Company who were employees or directors of Mykrolis prior to the merger or who were hired by the Company subsequent to the merger.

Employment Inducement Plan: The Employment Inducement Plan is a non-shareholder approved plan that provides for the issuance of stock options and other share-based awards to newly-hired employees and to employees of companies acquired by the Company. The Employment Inducement Plan has a term of ten years. Options granted under the Employment Inducement Plan have a maximum term of ten years and an exercise price equal to the fair market value of the Company's common stock on the date of grant. The Board of Directors determines other terms of option grants including, number of shares, restrictions and the vesting period. The number of reserved shares under the Employment Inducement Plan automatically increases annually by 0.25% of the number of shares of common stock outstanding on the date of the Annual Meeting of Stockholders unless otherwise determined by the Board of Directors.

Millipore Plan

In addition to the Company's plans, certain employees of the Company who were employees of Mykrolis were granted stock options under a predecessor's share-based compensation plan. The Millipore 1999 Stock Incentive Plan (the Millipore Plan) provided for the issuance of stock options and restricted stock to key employees as incentive compensation. The exercise price of a stock option was equal to the fair market value of Millipore's common stock on the date the option was granted and its term was generally ten years and vested over four years. Options granted to the Company's employees under the Millipore Plan in the past were converted into options to acquire Mykrolis common stock pursuant to the spin-off of Mykrolis by Millipore, and then were converted into options to acquire the Company's common stock pursuant to the merger with Mykrolis.

General Option Information

Option activity for the 1999 Plan and the Directors' Plan for the years ended December 31, 2008, 2007 and 2006 is summarized as follows:

	2008		2007		2006	
(Shares in thousands)	Number of shares	Weighted average exercise price	Number of shares	Weighted average exercise price	Number of shares	Weighted average exercise price
Options outstanding, beginning of year	3,505	$ 8.77	6,383	$ 7.76	8,501	$ 7.35
Granted	788	6.60	—	—	—	—
Exercised	(284)	4.12	(2,627)	6.01	(1,925)	5.56
Canceled	(799)	9.31	(251)	12.10	(193)	11.35
Options outstanding, end of year	3,210	$ 8.49	3,505	$ 8.77	6,383	$ 7.76
Options exercisable, end of year	2,542	$ 9.00	3,505	$ 8.77	6,379	$ 7.76

Options outstanding for the 1999 Plan and the Directors' Plan at December 31, 2008 are summarized as follows:

(Shares in thousands)	Options outstanding			Options exercisable	
Range of exercise prices	Number outstanding	Weighted average remaining life in years	Weighted-average exercise price	Number exercisable	Weighted average exercise price
$2.10	70	7.0 years	$ 2.10	—	$ —
$4.22	68	0.7 years	4.22	68	4.22
$5.90	380	3.8 years	5.90	380	5.90
$6.96 to $7.49	664	5.8 years	7.08	66	7.49
$8.04 to $10.00	1,267	3.6 years	8.55	1,267	8.55
$10.99 to $11.99	655	3.5 years	11.60	655	11.60
$12.71 to $14.65	106	4.9 years	13.57	106	13.57
	3,210	4.1 year		2,542	

The weighted average remaining contractual term for options outstanding and exercisable for the 1999 Plan and the Directors' Plan at December 31, 2008 was 3.5 years and 4.1 years, respectively.

Option activity for the 2001 Plan, the Employment Inducement Plan, the 2001 Directors Plan and the Millipore plan for the years ended December 31, 2008, 2007 and 2006, is summarized as follows:

	2008		2007		2006	
(Shares in thousands)	Number of shares	Weighted average exercise price	Number of shares	Weighted average exercise price	Number of Shares	Weighted average exercise price
Options outstanding, beginning of year	4,891	$ 8.67	6,422	$ 8.62	7,998	$ 8.53
Options granted	150	6.43	—	—	—	—
Options exercised	(57)	4.66	(1,345)	8.24	(1,102)	7.09
Options expired	(1,505)	9.86	(186)	10.23	(474)	10.74
Options outstanding, end of year	3,479	$ 8.12	4,891	$ 8.67	6,422	$ 8.62
Options exercisable	3,329	$ 8.20	4,723	$ 8.67	6,080	$ 8.63

Options outstanding for the 2001 Plan, Employment Inducement Plan, 2001 Directors Plan and Millipore Plan at December 31, 2008 are summarized as follows:

(Shares in thousands)	Options outstanding			Options exercisable	
Range of exercise prices	**Number outstanding**	**Weighted average remaining life in years**	**Weighted average exercise price**	**Number exercisable**	**Weighted-average exercise price**
$4.30-$4.89	447	0.9	$ 4.86	447	$ 4.86
$5.66-$8.09	1,134	1.3	6.15	984	6.11
$8.35-$9.83	723	2.8	8.49	723	8.49
$10.09-$10.91	253	1.8	10.70	253	10.70
$11.12-$11.76	922	2.1	11.13	922	11.13
	3,479	1.8	$ 8.12	3,329	$ 8.20

The weighted average remaining contractual term for options outstanding and exercisable for the 2000 Plan, the Employment Inducement Plan, the 2001 Directors' Plan and the Millipore Plan at December 31, 2008 was 1.8 years and 1.6 years, respectively.

For all plans, the Company had shares available for future grants of 11.0 million shares, 8.9 million shares, and 8.1 million shares at December 31, 2008, December 31, 2007, and December 31, 2006, respectively.

For all plans, the total pretax intrinsic value of stock options exercised during the years ended December 31, 2008 and 2007 was $1.1 million and $18.0 million, respectively. The aggregate intrinsic value, which represents the total pretax intrinsic value based on the Company's closing stock price of $2.19 at December 31, 2008, which theoretically could have been received by the option holders had all option holders exercised their options as of that date, was zero for both options outstanding and options exercisable. The total number of in-the-money options exercisable as of December 31, 2008 was zero.

During the years ended December 31, 2008, 2007 and 2006 certain existing stock option grants and restricted stock awards were modified in connection with the execution of various severance and separation agreements. Under the agreements, the terms of unvested and vested stock option grants were modified with no future service required by the affected individuals. Accordingly, under the measurement principles of SFAS No. 123(R), incremental share-based compensation expense of $0.4 million, $0.1 million and $0.4 million, respectively, was recognized for the value of the modified stock option grants at the date of the agreements' execution.

During the years ended December 31, 2008, 2007 and 2006 the Company received cash from the exercise of stock options totaling $1.4 million, $28.1 million, and $18.5 million, respectively. During the years ended December 31, 2008, 2007 and 2006, the Company received cash of $1.7 million, $1.8 million, and $1.5 million, respectively, in employee contributions to the Entegris, Inc. Employee Stock Purchase Plan.

Restricted Stock Awards

Restricted stock awards are awards of common stock that are subject to restrictions on transfer and to a risk of forfeiture if the awardee terminates employment with the Company prior to the lapse of the restrictions. The value of such stock is determined using the market price on the grant date. Compensation expense is recorded over the applicable restricted stock vesting periods. In conjunction with the adoption of SFAS 123(R), the Company changed its method of attributing the value of share-based compensation to expense from the accelerated multiple-option approach to the straight-line single option method. Accordingly, compensation expense for restricted stock awards granted on or prior to August 27, 2005 are recorded using the accelerated multiple-option approach, while compensation expense for restricted stock awards granted subsequent to August 27, 2005 are recognized using the straight-line single-option method. A summary of the Company's restricted stock activity for the years ended December 31, 2008, 2007 and 2006 is presented in the following table:

(Shares in thousands)	2008		2007		2006	
	Number of Shares	Weighted average grant date fair value	Number of shares	Weighted average grant date fair value	Number of shares	Weighted average grant date fair value
Unvested, beginning of year	1,873	$ 10.89	1,950	$ 10.71	1,526	$ 11.03
Granted	797	6.86	897	11.09	1,131	10.46
Vested	(773)	10.88	(801)	10.74	(631)	11.04
Forfeited	(346)	9.83	(173)	10.60	(76)	10.69
Unvested, end of year	1,551	$ 9.06	1,873	$ 10.89	1,950	$ 10.71

The weighted average remaining contractual term for unvested restricted shares at December 31, 2008 and 2007 was 2.2 years and 2.4 years, respectively.

As of December 31, 2008, the total compensation cost related to nonvested stock options and restricted stock awards not yet recognized was $1.3 million and $8.5 million, respectively, that is expected to be recognized over the next 2.3 years on a weighted-average basis. These amounts exclude restricted stock awards for which performance criteria have yet to be determined and, accordingly, grant dates for those awards have not been established.

During the years ended December 31, 2008, 2007 and 2006, Entegris, Inc. awarded performance stock for up to 0.5 million, 0.9 million, and 0.9 million shares for each year to be issued upon the achievement of performance conditions (Performance Shares) under the Company's stock incentive plans to certain officers and other key employees. The Performance Shares will be earned if, and to the extent that, various financial performance criteria for fiscal years 2006 through 2010 are achieved. The number of performance shares earned in a given year may vary based on the level of achievement of financial performance objectives for that year or multi-year period. If the Company's performance fails to achieve the specified performance threshold, then the Performance Shares allocated to that financial performance criteria are forfeited. Each annual tranche will have its own service period beginning at the date (the grant date) at which the Board of Directors establishes the annual performance targets for the applicable year. Compensation expense to be recorded in connection with the Performance Shares will be based on the grant date fair value of the Company's common stock. Awards of Performance Shares are expensed over the service period based on an evaluation of the probability of achieving the performance objectives.

For Performance Share awards granted in 2007, 50% of the shares are available to be awarded, if and to the extent that two financial performance criteria for fiscal year 2007 are achieved, while the remaining 50% of the shares are available to be awarded if and to the extent that a third financial performance criteria for the three-year period including fiscal years 2007 through 2009 is achieved. The number of performance shares earned may vary based on the level of achievement of financial performance criteria indicated. If the Company's performance fails to achieve the specified performance threshold, then the performance shares are forfeited. Compensation expense to be recorded in connection with the 2007 Performance Shares is based on the grant date fair value of the Company's common stock on the date the financial performance criteria were established. All shares earned in connection with the 2007 Performance Share awards are also subject to service conditions. Shares available upon attainment of the financial performance criteria for fiscal year 2007 vest annually over a four-year period, while shares available upon attainment of the financial performance criteria for the three-year period from fiscal years 2007 through 2009 will be three-quarters vested at the end of 2009, with the final 25% vesting in 2010.

For Performance Share awards granted in 2008, 100% of the shares are available to be awarded if and to the extent that financial performance criteria for the three-year period including fiscal years 2008 through 2010 are achieved. The number of performance shares earned may vary based on the level of achievement of financial performance criteria indicated. If the Company's performance fails to achieve the specified performance threshold, then the performance shares are forfeited. Compensation expense to be recorded in connection with the 2008 Performance Shares is based on the grant date fair value of the Company's common stock on the date the financial performance criteria were established. All shares earned in connection with the 2008 Performance Share awards are also subject to service conditions. Shares available upon attainment of the financial performance criteria for the three-year period from fiscal years 2008 through 2010 will be three-quarters vested at the end of 2010, with the final 25% vesting in 2011.

Certain unvested restricted shares of Mykrolis common stock issued in connection with restricted stock awards made prior to the merger with the Company were exchanged for unvested restricted shares of the Company's common stock, with the number of shares adjusted for the exchange ratio of 1.39. Accordingly, 0.3 million restricted Mykrolis shares were exchanged for 0.4 million restricted shares of the Company's common stock. The intrinsic value of $2.5 million associated with the unvested restricted stock was recorded as deferred compensation as part of the purchase price allocation for the Mykrolis acquisition. This balance is being charged to earnings over the remaining vesting periods that extend to 2008.

Valuation and Expense Information under SFAS 123(R)

The following table summarizes the allocation of share-based compensation expense related to employee stock options, restricted stock awards and grants under the employee stock purchase plan accounted for under SFAS 123(R) for the years ended December 31, 2008, 2007 and 2006:

(In thousands)	2008	2007	2006
Cost of sales	$1,026	$ 1,800	$ 3,000
Engineering, research and development expenses	513	180	230
Selling, general and administrative expenses	5,836	8,520	11,546
Share-based compensation expense	7,375	10,500	14,776
Tax benefit	2,751	3,948	5,556
Share-based compensation expense, net of tax	$4,624	$ 6,552	$ 9,220

Stock options

Share-based payment awards in the form of stock option awards for 0.9 million options were granted to employees during the year ended December 31, 2008 with no stock option awards granted during the years ended December 31, 2007 and 2006. Compensation expense is based on the grant date fair value estimated in accordance with the provisions of SFAS 123(R). The awards vest annually over a three-year period and have a contractual term of 7 years. The Company estimates the fair value of stock options using the Black-Scholes valuation model, consistent with the provisions of SFAS No. 123(R). Key inputs and assumptions used to estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the Company's stock, the risk-free rate and the Company's dividend yield. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards, and subsequent events are not indicative of reasonableness of the original estimates of fair value made by the Company. The weighted-average grant date exercise price of options awarded in 2008 was $6.58.

The fair value of each stock option grant was estimated at the date of grant using a Black-Scholes option pricing model. The following table presents the weighted-average assumptions used in the valuation and the resulting weighted-average fair value per option granted for the year ended December 31, 2008:

Employee stock options:	2008
Volatility	37.1%
Risk-free interest rate	3.1%
Dividend yield	0%
Expected life	4 years
Weighted average fair value per option	$ 2.17

A historical daily measurement of volatility is determined based on the expected life of the option granted. The risk-free interest rate is determined by reference to the yield on an outstanding U.S. Treasury note with a term equal to the expected life of the option granted. Expected life is determined by reference to the Company's historical experience. The Company determines the dividend yield by dividing the current annual dividend on the Company's stock by the option exercise price.

Shareholder Rights Plan On July 27, 2005, the Company's Board of Directors adopted a shareholder rights plan (the "Rights Plan") pursuant to which Entegris declared a dividend on August 8, 2005 to its shareholders of record on that date of one preferred share purchase right (a "Right") for each share of Entegris common stock owned on August 8, 2005. Each Right entitles the holder to purchase one-hundredth of a share of a series of preferred stock at an exercise price of $50, subject to adjustment as provided in the Rights Plan. The Rights Plan is designed to protect Entegris' shareholders from attempts by others to acquire Entegris on terms or by using tactics that could deny all shareholders the opportunity to realize the full value of their investment. The Rights are attached to the shares of the Company's common stock until certain triggering events specified in the Rights Agreement occur, including, unless approved by the Company's Board of Directors, an acquisition by a person or group of specified levels of beneficial ownership of Entegris common stock or a tender offer for Entegris common stock. Upon the occurrence of any of these triggering events, the Rights authorize the holders to purchase at the then-current exercise price for the Rights, that number of shares of the Company's common stock having a value equal to twice the exercise price. The Rights are redeemable by the Company for $0.01 and will expire on August 8, 2015. One of the events which will trigger the Rights is the acquisition, or commencement of a tender offer, by a person (an Acquiring Person, as defined in the shareholder rights plan), other than Entegris or any of its subsidiaries or employee benefit plans, of 15% or more of the outstanding shares of the Company's common stock. An Acquiring Person may not exercise a Right.

(18) BENEFIT PLANS

401(k) Plan The Company maintains the Entegris, Inc. 401(k) Savings and Profit Sharing Plan (the 401(k) Plan) that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the Plan, eligible employees may defer a portion of their pretax wages, up to the Internal Revenue Service annual contribution limit. Entegris matches 100% of employees' contributions on the first 3% of eligible wages and 50% of employees' contributions on the next 2% of eligible wages, or a maximum match of 4% of the employee's eligible wages. In addition to the matching contribution, the Company's Board of Directors may, at its discretion, declare a profit sharing contribution as a percentage of eligible wages based on the company's worldwide operating results. The employer profit sharing and matching contribution expense under the Plans was $3.0 million, $5.9 million and $5.8 million in the fiscal years ended December 31, 2008, 2007 and 2006, respectively.

Supplemental Savings and Retirement Plan The Company also maintains the Supplemental Savings and Retirement Plan (the "Supplemental Plan"). Under the Supplemental Plan, certain senior executives are allowed certain salary deferral benefits that would otherwise be lost by reason of restrictions imposed by the Internal Revenue Code limiting the amount of compensation which may be deferred under tax-qualified plans. Liabilities of $2.2 million and $3.2 million at December 31, 2008 and 2007, respectively, related to the Supplemental Plan are included in the consolidated balance sheets under the caption "Pension benefit obligations and other liabilities". The Company recorded income of $0.8 million in the year ended December 31, 2008 and expense of $0.3 million and $0.5 million in the years ended December 31, 2007 and 2006, respectively.

Defined Benefit Plans The employees of the Company's subsidiaries in Japan and Taiwan are covered in defined benefit pension plans. The Company uses a December 31 measurement date for its pension plans.

Effective December 31, 2006, the Company adopted SFAS No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans*. Under SFAS No. 158, the Company is required to recognize the overfunded or underfunded status of its defined benefit pension plans as an asset or liability in its consolidated balance sheets and to recognize changes in that funded status in the year in which the changes occur through comprehensive income. SFAS No. 158 also requires the measurement of the funded status of a plan as of the date of its year-end consolidated balance sheet. The Company's existing policy was to measure the funded status of it plans as of the balance sheet date; accordingly, the new measurement date requirements of SFAS No. 158 had no impact.

The tables below set forth the Company's estimated funded status as of December 31, 2008 and 2007:

(In thousands)	2008	2007
Change in benefit obligation:		
Benefit obligation at beginning of period	$ 17,367	$ 14,297
Plan amendments	—	530
Service cost	1,411	1,165
Interest cost	334	307
Actuarial (gains) losses	(63)	1,183
Benefits paid	(1,210)	(1,007)
Foreign exchange impact	4,031	892
Benefit obligation at end of period	21,870	17,367
Change in plan assets:		
Fair value of plan assets at beginning of period	4,442	3,824
Plan amendments	—	(510)
Return on plan assets	(1,286)	349
Employer contributions	1,047	675
Benefits paid	(426)	(129)
Foreign exchange impact	910	233
Fair value of plan assets at end of period	4,687	4,442
Funded status:		
Plan assets less than benefit obligation	(17,183)	(12,925)
Net amount recognized	$(17,183)	$(12,925)
Amounts recognized in the consolidated balance sheet consist of:		
Noncurrent liability	$(17,183)	$(12,925)
Accumulated other comprehensive loss, net of taxes	1,961	951
Amounts recognized in accumulated other comprehensive loss, net of tax consist of:		
Net actuarial loss	$ 1,990	$ 417
Prior service cost	1,268	209
Unrecognized transition obligation	(14)	960
Gross amount recognized	3,244	1,586
Deferred income taxes	(1,283)	(635)
Net amount recognized	$ 1,961	$ 951

Information for pension plans with an accumulated benefit obligation in excess of plan assets as of December 31, 2008 and 2007:

(In thousands)	2008	2007
Projected benefit obligation	$21,870	$17,367
Accumulated benefit obligation	19,855	15,495
Fair value of plan assets	4,687	4,422

The components of the net periodic benefit cost for the years ended December 31, 2008, 2007 and 2006 are as follows:

(In thousands)	2008	2007	2006
Pension benefits:			
Service cost	$1,411	$1,165	$1,248
Interest cost	334	307	264
Expected return on plan assets	(74)	(30)	(33)
Amortization of prior service cost	134	10	10
Amortization of net transition obligation	(1)	(1)	—
Recognized actuarial net loss	66	114	75
Net periodic pension benefit cost	$1,870	$1,565	$1,564

The estimated amount that will be amortized from accumulated other comprehensive income into net periodic benefit cost in 2009 is as follows:

(In thousands)	
Transition obligation	$ (1)
Prior service cost	(105)
	$(106)

Assumptions used in determining the benefit obligation and net periodic benefit cost for the Company's pension plans for the years ended December 31, 2008, 2007 and 2006 are presented in the following table as weighted-averages:

	2008	2007	2006
Benefit obligations:			
Discount rate	1.66%	1.78%	2.06%
Rate of compensation increase	6.56%	6.53%	2.26%
Net periodic benefit cost:			
Discount rate	1.77%	2.05%	1.84%
Rate of compensation increase	6.55%	2.26%	2.26%
Expected return on plan assets	1.58%	0.90%	0.90%

The discount rate used by the Company is based on rates of long-term government bonds.

Plan Assets

At December 31, 2008, the majority of the Company's pension plan assets are invested in a Japanese insurance company's investment funds which consist mainly of equity and debt securities. There is interest rate risk associated with the valuation of these investments. The long-term rate of return on Japanese pension plan assets was developed through an analysis of historical returns and the fund's current guaranteed return rate. Estimates of future returns are based on a continuation of the existing guaranteed rate of return. The remaining portion of the Company's plan assets is deposited in Bank of Taiwan in the form of cash, where Bank of Taiwan is the assigned funding vehicle for the statutory retirement benefit. The Company's pension plan weighted average asset allocation at December 31, 2008 and 2007, by asset category, are as follows:

Asset category:	2008	2007
Equity securities	45%	57%
Debt securities	40%	35%
Other	15%	8%
Total	100%	100%

Cash Flows

The Company expects to contribute $1.2 million to its defined benefit pension plans during 2009. The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

(In thousands)	
2009	$ 624
2010	920
2011	589
2012	472
2013	549
Years 2014-2018	4,302

(19) FAIR VALUE MEASUREMENTS

Effective January 1, 2008, the Company adopted FASB Statement No. 157, *Fair Value Measurements*, (SFAS No. 157), except for the nonfinancial assets and liabilities that are allowed to be deferred in accordance with FASB Staff Position (FSP) 157-2. FSP 157-2 delays the effective date of SFAS No.157 for nonfinancial assets and nonfinancial liabilities, except for items that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually). This FSP defers the effective date of Statement 157 for the applicable items to fiscal years beginning after November 15, 2008. The Company will not apply the provisions of SFAS No. 157 until January 1, 2009 for the following major categories of nonfinancial assets and liabilities from the Consolidated Balance Sheet: Property, plant and equipment-net; intangible assets-net and accrued liabilities.

SFAS No. 157 provides a framework for measuring fair value under generally accepted accounting principles. As defined in SFAS No. 157, fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price). The Company utilizes market data or assumptions that the Company believes market participants would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique. These inputs can be readily observable, market-corroborated or generally unobservable.

SFAS No. 157 establishes a fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement). The three levels of the fair value hierarchy defined by SFAS No. 157 are as follows:

Level 1	Quoted prices are available in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis. Level 1 primarily consists of financial instruments such as exchange-traded derivatives, listed equities and U.S. government Treasury securities.
Level 2	Pricing inputs are other-than-quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reporting date. Level 2 includes those financial instruments that are valued using models or other valuation methodologies. These models are primarily industry-standard models that consider various assumptions, including quoted forward prices for commodities, time value, volatility factors, and current market and contractual prices for the underlying instruments, as well as other relevant economic measures. Substantially all of these assumptions are observable in the marketplace throughout the full term of the instrument, can be derived from observable data or are supported by observable levels at which transactions are executed in the marketplace. Instruments in this category include non-exchange-traded derivatives such as over-the-counter forwards, options and repurchase agreements.
Level 3	Pricing inputs include significant inputs that are generally less observable from objective sources. These inputs may be used with internally developed methodologies that result in management's best estimate of fair value from the perspective of a market participant. Level 3 instruments include those that may be more structured or otherwise tailored to customers' needs. At each balance sheet date, the Company performs an analysis of all instruments subject to SFAS No. 157 and includes in Level 3 all of those whose fair value is based on significant unobservable inputs.

The Company also adopted FASB Statement No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities — Including an amendment of FASB Statement No. 115* (SFAS No. 159), effective January 1, 2008. SFAS No. 159 provides an option to elect fair value as an alternative measurement for selected financial assets, financial liabilities, unrecognized firm commitments and written loan commitments not previously recorded at fair value. Upon the adoption of SFAS No. 159, the Company did not elect to apply the fair value provisions to any of the items set forth in SFAS No. 159.

Assets and liabilities measured at fair value on a recurring basis as of December 31, 2008 include derivatives. The Company periodically enters into forward foreign currency contracts to reduce exposures relating to rate changes in certain foreign currencies. Certain exposures to credit losses related to counterparty nonperformance exist. However, the Company does not anticipate nonperformance by the counterparties since they are large, well-established financial institutions. None of these derivative instruments are accounted for as a hedge transaction under the provisions of SFAS No. 133 as of December 31, 2008. Accordingly, changes in the fair value of forward foreign currency contracts are recorded as a component of net income. As of December 31, 2008, the Company held one foreign currency forward contract with a notional amount of $1.8 million hedging Euros. As of December 31, 2008, such instruments represented an asset with a fair value of $0.1 million based on quotations from the financial institutions, which management considers a level 2 input. Assets measured at fair value on a recurring basis consisted of the following types of instruments as of December 31, 2008:

	Fair value measurements at reporting date using		
(In thousands)	Quoted prices in active markets for identical instruments (Level 1)	Significant observable other inputs (Level 2)	Significant unobservable inputs (Level 3)
Foreign currency forward contract	—	$ 79	—

(20) EARNINGS PER SHARE (EPS)

Basic EPS is computed by dividing net (loss) income by the weighted average number of shares of common stock outstanding during each period. The following table presents a reconciliation of the share amounts used in the computation of basic and diluted earnings per share for the years ended December 31, 2008, 2007 and 2006:

(In thousands)	2008	2007	2006
Basic (loss) earnings per share—Weighted common shares outstanding	112,653	122,557	135,116
Weighted common shares assumed upon exercise of options	—	1,617	2,377
Weighted common shares assumed upon vesting of restricted common stock	—	766	999
Diluted (loss) earnings per share—Weighted common shares outstanding	112,653	124,940	138,492

Approximately 3.6 million and 4.5 million of the Company's stock options were excluded from the calculation of diluted earnings per share in the fiscal years ended December 31, 2007 and 2006, respectively, because the exercise prices of the stock options were greater than the average price of the Company's common stock, and therefore their inclusion would have been antidilutive. The effect of the inclusion of stock options and unvested restricted common stock for the year ended December 31, 2008 would have been anti-dilutive.

(21) SEGMENT INFORMATION

Entegris operates in one segment for the design, development, manufacture, marketing and sale of material integrity management products and services predominantly within the semiconductor industry. All products are sold on a worldwide basis. In accordance with SFAS No. 131, *Disclosures About Segments of an Enterprise and Related Information*, the Company's chief operating decision-maker has been identified as the President and Chief Executive Officer, who reviews operating results to make decisions about allocating resources and assessing performance for the entire company. Since Entegris operates in one reportable segment, all financial information required by SFAS 131 can be found in the consolidated financial statements.

The following table summarizes total net sales by markets served for the years ended December 31, 2008, 2007 and 2006:

(In thousands)	2008	2007	2006
Net sales:			
Semiconductor	$ 419,132	$ 482,083	$ 526,243
Data storage	24,526	37,334	44,461
Other	111,041	106,821	102,178
	$ 554,699	$ 626,238	$ 672,882

The following tables summarize total net sales, based upon the country to which sales to external customers were made, and property, plant and equipment attributed to significant countries for the years ended December 31, 2008, 2007 and 2006:

(In thousands)	2008	2007	2006
Net sales:			
United States	$ 153,098	$ 163,146	$ 193,887
Japan	115,589	144,231	153,454
Germany	21,264	30,508	25,635
Taiwan	72,792	89,012	82,039
Singapore	29,603	34,168	30,648
Korea	40,954	51,477	55,901
Malaysia	14,750	21,230	24,945
China	21,868	18,504	15,507
Other	84,781	73,962	90,866
	$ 554,699	$ 626,238	$ 672,882

(In thousands)	2008	2007	2006
Property, plant and equipment:			
United States	$ 94,175	$ 63,774	$ 69,463
Japan	30,891	22,481	21,114
Malaysia	26,247	27,270	22,874
Other	8,425	7,632	7,536
	$ 159,738	$ 121,157	$ 120,987

In the years ended December 31, 2008, 2007 and 2006, no single nonaffiliated customer accounted for 10% or more of net sales. In the years ended December 31, 2008, 2007 and 2006, net sales to the Company's top ten customers accounted for approximately 26%, 28% and 27%, respectively, of the Company's net sales.

(22) COMMITMENTS AND CONTINGENT LIABILITIES

The Company is subject to various claims, legal actions, and complaints arising in the ordinary course of business. The Company believes the final outcome of these matters will not have a material adverse effect on its consolidated financial position or results of operations. The Company expenses legal costs as incurred. The following discussion provides information regarding certain litigation to which the Company was a party that were pending as of December 31, 2008.

As previously disclosed, on March 3, 2003 the Company's predecessor, Mykrolis Corporation, filed a lawsuit against Pall Corporation in the United States District Court for the District of Massachusetts alleging infringement of two of the Company's U.S. patents by certain fluid separation systems and related assemblies used in photolithography applications manufactured and sold by the defendant. The Company's lawsuit also sought a preliminary injunction preventing the defendant from the manufacture, use, sale, offer for sale or importation into the U.S. of any infringing product. On April 30, 2004, the Court issued a preliminary injunction against Pall Corporation and ordered Pall to immediately stop making, using, selling, or offering to sell within the U.S., or importing into the U.S., its PhotoKleen EZD-2 Filter Assembly products or "any colorable imitation" of those products. On January 18, 2005, the Court issued an order holding Pall Corporation in contempt of court for the violation of the preliminary injunction and ordering Pall to disgorge all profits earned from the sale of its PhotoKleen EZD-2 Filter Assembly products and colorable imitations thereof from the date the preliminary injunction was issued through January 12, 2005. In addition, Pall was also ordered to reimburse Mykrolis for certain of its attorney's fees associated with the contempt and related proceedings. The Court's order also dissolved the preliminary injunction, effective January 12, 2005, based on certain prior art cited by Pall which it alleged raised questions as to the validity of the patents in suit. On February 17, 2005, the Company filed notice of appeal to the U.S. Circuit Court of Appeals for the Federal Circuit appealing the portion of the Court's order that dissolved the preliminary injunction and Pall filed a notice of appeal to that court with respect to the finding of contempt and the award of attorneys' fees. On June 13, 2007 the Court of Appeals issued an opinion dismissing Pall's appeal for lack of jurisdiction and affirming the District Court's order dissolving the preliminary injunction.

On April 6, 2006 the Company filed a lawsuit against Pall Corporation in the United States District Court for the District of Massachusetts alleging infringement of the Company's newly issued U.S. patent No. 7,021,667 by certain filter assembly products used in photolithography applications that are manufactured and sold by the defendant. The Company's lawsuit also seeks a preliminary injunction preventing the defendant from the manufacture, use, sale, offer for sale or importation into the U.S. of the infringing products. On October 23, 2006 the Company's motion for preliminary injunction was argued before the court. On March 31, 2008 the court issued an order denying the Company's motion for a preliminary injunction.

On August 23, 2006 the Company filed a lawsuit against Pall Corporation in the United States District Court for the District of Massachusetts alleging infringement of the Company's newly issued U.S. patent No. 7,037,424 by certain fluid separation modules and related separation apparatus, including the product known as the EZD-3 Filter Assembly, used in photolithography applications that are manufactured and sold by the defendant. It is believed that the EZD-3 Filter Assembly was introduced into the market by the defendant in response to the action brought by the Company in March of 2003 as described above. On May 5, 2008, the court issued an order consolidating this case with the two cases described in the preceding paragraphs for purposes of discovery; these cases are currently in the discovery stage.

As previously disclosed, on December 16, 2005 Pall Corporation filed suit against the Company in U.S. District Court for the Eastern District of New York alleging patent infringement. Specifically, the suit alleges infringement of two of plaintiff's patents by one of the Company's gas filtration products and by the packaging for certain of the Company's liquid filtration products. Both products and their predecessor products have been on the market for a number of years. The Company intends to vigorously defend this suit and believes that it will ultimately prevail. This case is currently awaiting a hearing before the court for claim construction of the patents in suit.

On May, 4, 2007 Pall Corporation filed a lawsuit against the Company in the U.S. District Court for the Eastern District of New York alleging patent infringement. Specifically, the suit alleges that certain of the Company's point-of-use filtration products infringe a newly issued Pall patent, as well as three older Pall patents. Pall's action, which relates only to the U.S., asserts that "on information and belief" the Company's Impact 2 and Impact Plus point-of-use photoresist filters infringe a patent issued to Pall on March 27, 2007, as well as three older patents. The Company intends to vigorously defend this suit and believes that it will ultimately prevail. This case is currently in the discovery stage.

(23) SUBSEQUENT EVENT

On March 2, 2009, the Company amended and restated its credit agreement (Amended Agreement) with Wells Fargo Bank, National Association, as agent, and certain other banks. The Amended Agreement provides for a maximum $150 million revolving credit facility maturing November 1, 2011. The Company's prior credit agreement provided for a $230 million revolving credit facility maturing February 15, 2013.

Under the terms of the Amended Agreement, the Company is initially limited to borrowings of $139 million. The remaining $11 million of the credit facility may not be borrowed unless a majority of the lenders consent. The ability to borrow under the credit facility is subject to a borrowing base composed of domestic eligible accounts receivable, inventory and fixed assets. The borrowing cap can be adjusted downward if the Company's levels of qualifying domestic accounts receivable, inventories and value of its property, plant and equipment were to decline from current levels.

The financial covenants in the Amended Agreement replace those in the prior credit agreement. The Amended Agreement requires that the Company achieve minimum year-to-date EBITDA (defined as net income plus certain items including, but not limited to, depreciation, amortization, share-based compensation expense, interest and income taxes) at prescribed levels. The minimum year-to-date EBITDA levels, measured on a year-to-date basis from January 2009 through March 2010, are indicated in the table below.

Period ending	(In thousands)
January 2009	$ (16,000)
February 2009	(24,000)
March 2009	(31,000)
April 2009	(35,000)
May 2009	(42,000)
June 2009	(45,000)
July 2009	(53,000)
August 2009	(59,000)
September 2009	(62,000)
October 2009	(62,000)
November 2009	(62,000)
December 2009	(56,000)
January 2010	(3,000)
February 2010	2,000
March 2010	7,000

Under the terms of the Amended Agreement, the Company may elect that the loans comprising each borrowing bear interest at a rate per annum equal to either (a) the sum of 4.25% plus a base rate equal to the highest of: (i) the prime rate then in effect, (ii) the Federal Funds rate then in effect plus 1.25%, (iii) the one-month LIBOR rate then in effect plus 1.25% or (iv) 3.25%; or (b) the sum of 5.25% plus the greater of the LIBOR rate then in effect or 1.50%. These interest rates may be increased by 2.25% if the Company's EBITDA for the twelve-month period ending on the dates below is less than the minimum amount indicated in the table below:

Period ending	(In thousands)
July 2009	$ (44,000)
August 2009	(47,000)
September 2009	(46,000)
October 2009	(46,000)
November 2009	(45,000)
December 2009	(39,000)

The Company’s borrowings are guaranteed by all its subsidiaries which are treated as domestic for tax purposes and secured by a first-priority security interest in all assets owned by the borrowers or such domestic guarantors, except that the collateral shall include only 65% of the voting stock owned by the borrowers or a domestic subsidiary of each subsidiary which is treated as foreign for tax purposes.

Voluntary prepayments and commitment reductions are permitted, in whole or in part, in minimum amounts without penalty, other than customary breakage costs with respect to LIBOR borrowings. Mandatory prepayments of the revolving loan, but not commitment reductions, must be made with the proceeds of asset sales, insurance and condemnation recoveries and certain extraordinary receipts.

At all times the borrowers and guarantors must maintain certain minimum cash and cash equivalents. The Amended Agreement also includes limitations on the amount of cash and cash equivalents of the Company and its foreign subsidiaries located outside the United States. Beginning in the second quarter of 2010, the foregoing minimum EBITDA covenants expire and the Amended Agreement requires that the Company maintain certain cash flow leverage and fixed charge coverage ratios.

In addition, the Amended Agreement includes negative covenants, subject to exceptions, restricting or limiting the Company’s ability and the ability of its subsidiaries to, among other things, sell assets; make capital expenditures; alter the business the Company conducts; engage in mergers, acquisitions and other business combinations; declare dividends or redeem or repurchase capital stock; incur, assume or permit to exist additional indebtedness or guarantees; make loans and investments; make acquisitions; incur liens; and enter into transactions with affiliates.

The Amended Agreement also contains customary provisions relating to representations and warranties, affirmative covenants and events of default, including payment defaults, breach of representations and warranties, covenant defaults, certain events of bankruptcy, certain events under ERISA, material judgments, cross defaults and change in control. If an event of default occurs, the lenders under the Amended Agreement would be entitled to take various actions, including ceasing to make further advances, accelerating the maturity of amounts outstanding under the Amended Agreement and all other remedial actions permitted to be taken by a secured creditor.

(24) QUARTERLY INFORMATION-UNAUDITED

(In thousands, except per share data)	Fiscal quarter ended			
	March 29, 2008	June 28, 2008	September 27, 2008	December 31, 2008
Net sales	$148,227	$147,947	$ 145,789	$ 112,736
Gross profit	63,988	59,887	55,398	32,242
Net income (loss) from continuing operations	3,208	5,525	(392,912)	(131,718)
Net (loss) income from discontinued operations	(343)	(592)	(90)	(80)
Net income (loss)	2,865	4,933	(393,002)	(131,798)
Basic earnings (loss) per share				
Continuing operations	0.03	0.05	(3.51)	(1.18)
Discontinued operations	0.00	(0.01)	(0.00)	0.00
Net income (loss)	0.03	0.04	(3.52)	(1.18)
Diluted earnings (loss) per share				
Continuing operations	0.03	0.05	(3.51)	(1.18)
Discontinued operations	(0.00)	(0.01)	(0.00)	0.00
Net income (loss)	0.02	0.04	(3.52)	(1.18)

(In thousands, except per share data)	Fiscal quarter ended			
	March 31, 2007	June 30, 2007	September 29, 2007	December 31, 2007
Net sales	$159,571	$153,508	$ 151,811	$ 161,348
Gross profit	68,508	65,494	65,510	66,725
Net income from continuing operations	10,494	15,750	8,953	11,159
Net loss from discontinued operations	(111)	(973)	(536)	(377)
Net income	10,383	14,777	8,417	10,782
Basic earnings (loss) per share				
Continuing operations	0.08	0.12	0.08	0.10
Discontinued operations	0.00	(0.01)	(0.00)	(0.00)
Net income	0.08	0.11	0.07	0.09
Diluted earnings (loss) per share				
Continuing operations	0.08	0.12	0.08	0.10
Discontinued operations	0.00	(0.01)	(0.00)	(0.00)
Net income	0.08	0.11	0.07	0.09

Exhibit 3

BY-LAWS

OF

ENTEGRIS, INC.

AS AMENDED DECEMBER 17, 2008

BY-LAWS
of
ENTEGRIS, INC.

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ENTEGRIS, INC.

BY-LAWS

ARTICLE 1—OFFICES

1.1 ***Registered Offices.*** The registered office of Entegris, Inc. (the "Corporation") in the State of Delaware shall be located at 2711 Centerville Road, Suite 400, in the City of Wilmington, County of New Castle, Delaware 19808. The name of the Corporation's registered agent at such address shall be Corporation Service Company. The registered office and/or registered agent of the Corporation may be changed from time to time by action of the Board of Directors.

1.2 ***Other Offices.*** The Corporation may also have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the Corporation may require.

1.3 ***Books.*** The books of the Corporation may be kept within or without of the State of Delaware as the Board of Directors may from time to time determine or the business of the Corporation may require.

ARTICLE 2—STOCKHOLDERS

2.1 ***Place of Meetings.*** All meetings of stockholders shall be held at such place within or without the State of Delaware as may be designated from time to time by the Board of Directors or the Chief Executive Officer (or, if there is no Chief Executive Officer, the President).

2.2 ***Annual Meeting.*** The annual meeting of stockholders for the election of directors and for the transaction of such other business as may properly be brought before the meeting shall be held on such date and at such time as shall be fixed by the Board of Directors, pursuant to a resolution adopted by the affirmative vote of a majority of the total number of directors then in office, or by the Chief Executive Officer (or, if there is no Chief Executive Officer, the President) and stated in the notice of the meeting. If no annual meeting is held in accordance with the foregoing provisions, the Board of Directors shall cause the meeting to be held as soon thereafter as convenient.

2.3 ***Special Meetings.*** Special meetings of stockholders may be called at any time by only the Chairman of the Board of Directors, the Chief Executive Officer (or, if there is no Chief Executive Officer, the President) or by the Board of Directors of the Corporation pursuant to a resolution adopted by the affirmative vote of a majority of the total number of directors then in office. Any business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.

2.4 ***Notice of Meetings.*** Except as otherwise provided by law, written notice of each meeting of stockholders, whether annual or special, shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notices of all meetings shall state the place, date and hour of the meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his or her address as it appears on the records of the Corporation.

2.5 ***Voting List.*** The officer who has charge of the stock ledger of the Corporation shall prepare, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, at the principal place of business of the Corporation. The list shall also be produced and kept at the time and place of the meeting during the whole time of the meeting, and may be inspected by any stockholder who is present.

2.6 ***Quorum.*** Except as otherwise provided by law, the Certificate of Incorporation or these By-Laws, the holders of a majority of the shares of the capital stock of the Corporation issued and outstanding and entitled to vote at the meeting, present in person or represented by proxy, shall constitute a quorum for the transaction of business.

2.7 ***Adjournments.*** Any meeting of stockholders may be adjourned to any other time and to any other place at which a meeting of stockholders may be held under these By-Laws by a majority of the stockholders present or represented at the meeting and entitled to vote, although less than a quorum, or, if no stockholder is present, by any officer entitled to preside at or to act as Secretary of such meeting. It shall not be necessary to notify any stockholder of any adjournment of less than thirty (30) days if the time and place of the adjourned meeting are announced at the meeting at which adjournment is taken, unless after the adjournment a new record date is fixed for the adjourned meeting. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting.

2.8 ***Voting and Proxies.*** Except as otherwise provided by the Delaware General Corporation Law, the Certificate of Incorporation or these By-Laws, each stockholder shall have one vote for each share of capital stock entitled to vote and held of record by such stockholder. To the extent permitted by law, each stockholder of record entitled to vote at a meeting of stockholders may vote in person or may authorize another person or persons to vote or act for him or her by proxy, which proxy may be authorized in writing, telegram, cablegram or other means of electronic transmission by the stockholder or his or her authorized agent. No such proxy shall be voted or acted upon after three years from the date of its execution, unless the proxy expressly provides for a longer period.

2.9 ***Proxy Representation.*** Every stockholder may authorize another person or persons to act for him or her by proxy in all matters in which a stockholder is entitled to participate, whether by waiving notice of any meeting, objecting to or voting or participating at a meeting, or expressing consent or dissent without a meeting. No proxy shall be voted or acted upon after three years from its date unless such proxy provides for a longer period. A duly executed proxy shall be irrevocable if it states that it is irrevocable and, if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A proxy may be made irrevocable regardless of whether the interest with which it is coupled is an interest in the stock itself or an interest in the Corporation generally.

2.10 ***Action at Meeting.*** When a quorum is present at any meeting, a majority of the votes properly cast for an uncontested election and a plurality of the votes properly cast for a contested election (as defined in Section 3.3 below) to any office shall elect to such office and a majority of the votes properly cast upon any question other than an election to an office shall decide the question, except when a larger vote is required by law, by the Certificate of Incorporation or by these By-Laws. No ballot shall be required for any election unless requested by a stockholder present or represented at the meeting and entitled to vote in the election.

2.11 ***Nomination of Directors.*** Only persons who are nominated in accordance with the following procedures shall be eligible for election as directors. The nomination for election to the Board of Directors of the Corporation at a meeting of stockholders may be made by the Board of Directors or by any stockholder of the Corporation entitled to vote for the election of directors at such meeting who complies with the notice procedures set forth in this Section 2.11. Such nominations, other than those made by or on behalf of the Board of Directors, shall be made by notice in writing delivered or mailed by first class United States mail, postage prepaid, to the Secretary, and received at the principal executive offices of the Corporation not less than ninety (90) days nor more than one hundred twenty (120) days prior to the anniversary date of the immediately preceding annual meeting of stockholders; provided, however, that if the annual meeting is not held within thirty (30) days before or after such anniversary date, then such nomination shall have been delivered to or mailed and received by the Secretary not later than the close of business on the 10th day following the date on which the notice of the meeting was mailed or such public disclosure was made, whichever occurs first. In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above. Such notice shall set forth **(a)** as to each proposed nominee **(i)** the name, age, business address and, if known, residence address of each such nominee, **(ii)** the principal occupation or employment of each such nominee, **(iii)** the number of shares of stock of the Corporation which are beneficially owned by each such nominee, **(iv)** any other information concerning the nominee that must be disclosed as to nominees in proxy solicitations pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including such person's written consent to be named as a nominee and to serve as a director if elected; and **(v)** a statement whether such nominee, if elected, has agreed to tender, in advance of the meeting for the election of directors, an irrevocable resignation to be effective if, at the next meeting for the election of directors: **(A)** the director does not receive the majority vote required by Section 3.3 below and **(B)** the Board of Directors accepts such resignation; and **(b)** as to the stockholder giving the notice **(i)** the name and address, as they appear on the Corporation's books, of such stockholder; **(ii)** the class and number of shares of the Corporation which are beneficially owned by such stockholder; **(iii)** the information required by clause (c)(iii) of Section 2.12 below; and **(iv)** a description of all direct and indirect compensation and any other material agreement, arrangement, understanding or relationship during the past three years between or among such stockholder and its affiliates and associates, or others with whom such stockholder is acting in concert, on the one hand, and each such nominee and his or her affiliates and associates, or others with whom such nominee is acting in concert, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 promulgated under Securities & Exchange Commission Regulation S-K if the stockholder making the nomination, or any affiliate or associate of such stockholder or person with whom the stockholder is acting in concert, were the "registrant" for purposes of such rule and the nominee were a director or executive officer of such registrant. The Corporation may require any proposed nominee to furnish such other information as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as a director of the Corporation.

The chairman of the meeting may, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the foregoing procedure, and if he or she should so determine, he or she shall so declare to the meeting and the defective nomination shall be disregarded.

2.12 ***Notice of Business at Annual Meetings.*** **(a)** At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be **(i)** specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, **(ii)** otherwise properly brought before the meeting by or at the direction of the Board of Directors, or **(iii)** otherwise properly brought before an annual meeting by a stockholder who is a stockholder of record at the time the notice provided for in this Section 2.12 is delivered to the Secretary, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 2.12.

(b) In order to assure that stockholders and the Corporation have a reasonable opportunity to consider business proposed to be brought before an annual meeting of stockholders and to allow for full information to be distributed to stockholders, for business (other than nomination of a person for election as a director of the Corporation, which is governed by Section 2.11 of these By-Laws) to be properly brought before an annual meeting by a stockholder the stockholder must have given timely notice thereof in proper written form to the Secretary pursuant to clause (iii) of the foregoing paragraph, and such business must be a proper subject for stockholder action under the Delaware General Corporation Law. To be timely, a stockholder's notice must be delivered to the Secretary not later than the close of business on the ninetieth (90th) day nor earlier than the one hundred twentieth (120th) day prior to the anniversary date of the immediately preceding annual meeting of stockholders; *provided*, *however*, that if the annual meeting is not held within thirty (30) days before or after such anniversary date, then for the notice by the stockholder to be timely it must be so received not later than the close of business on the 10th day following the date on which the notice of the date of such meeting was mailed or public announcement (as defined in Section 2.12 (f) below) of such date was first made by the Corporation, whichever occurs first. In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above. The requirements of this Section 2.12 will apply to any business to be brought before an annual meeting by a stockholder (other than the nomination of a person for election as a director of the Corporation, which is governed by Section 2.11) whether such business is to be included in the Corporation's proxy statement pursuant to Rule 14a-8 of the proxy rules (or any successor provision) promulgated under the Exchange Act or presented to stockholders by means of an independently financed proxy solicitation.

(c) A stockholder's notice to the Secretary shall set forth:

(i) As to each matter the stockholder proposes to bring before the annual meeting **(1)** a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, and **(2)** any substantial (as that term is used in Item 5 of Schedule 14A of the Exchange Act) interest in such business of such stockholder and/or of the beneficial owner (as defined in Section 2.12 (f) below), if any, on whose behalf the business is being proposed;

(ii) As to the stockholder giving the notice and/or the beneficial owner, if any, on whose behalf the business is being proposed **(1)** the name and address of the stockholder proposing such business, as they appear on the Corporation's books and the name and address of such beneficial owner, **(2)** the class and number of shares of the Corporation which are beneficially owned by such stockholder and by such beneficial owner as of the date of the notice; and **(3)** a representation that: **(A)** the stockholder will notify the Corporation in writing within five (5) business days after the record date for such meeting of the class or series and number of shares of capital stock of the Corporation owned of record by the stockholder and such beneficial owner as of the record date for the meeting, and **(B)** the stockholder intends to appear in person or by proxy at the meeting to bring such business before the meeting.

(iii) As to the stockholder giving the notice and, if the notice is given on behalf of a beneficial owner on whose behalf the business is being proposed, as to such beneficial owner: **(1)** the class or series and number of shares of capital stock of the Corporation that are beneficially owned by such stockholder or beneficial owner as of the date of the notice and by each associate (as defined in Section 2.12(f) below) of the stockholder or beneficial owner as of the date of the notice; **(2)** a description of any agreement, arrangement or understanding (whether or not in writing) with respect to the business between or among such stockholder or beneficial owner and any other person, including without limitation any agreements that would be required to be described or reported pursuant to Item 5 or Item 6 of Exchange Act Schedule 13D (regardless of whether the requirement to file a

Schedule 13D is applicable to the shareholder or beneficial owner); **(3)** a description of any agreement, arrangement or understanding (whether or not in writing and including any derivative or short positions, profit interests, options, hedging transactions, and borrowed or loaned shares, regardless of whether settled in shares or in cash) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such stockholder or beneficial owner, the effect or intent of which is to mitigate loss, manage risk or benefit from changes in the share price of any class or series of the Corporation's capital stock, or increase or decrease the voting power of the stockholder or beneficial owner with respect to shares of capital stock of the Corporation, including the notional number of shares that are the subject of such agreement, arrangement or understanding; and **(4)** a description of any agreement, arrangement or understanding (whether or not in writing) between or among such stockholder or beneficial owner and any other person relating to acquiring, holding, voting or disposing of any shares of stock of the Corporation, including the number of shares that are the subject of such agreement, arrangement or understanding;

(iv) As to the stockholder giving the notice or, if the notice is given on behalf of a beneficial owner on whose behalf the business is being proposed, as to such beneficial owner, a covenant that the stockholder will notify the Corporation in writing within five (5) business days after the record date for such meeting as to the status of each of the matters set forth in clauses 1 through 4 of the preceding paragraph (iii) as of the record date for the meeting;

(v) A representation: **(1)** as to whether the stockholder or the beneficial owner will engage in a solicitation with respect to such proposal and, if so, the name of each participant (as defined in Item 4 of Schedule 14A under the Exchange Act) in such solicitation and whether such person or group intends to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the business to be proposed (in person or by proxy) by the stockholder; and **(2)** that the information provided in the notice in compliance with this Section 2.12 is accurate and complete as of the date of such notice; and

(vi) As to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the business is being proposed, such stockholders' and beneficial owner's written consent to the public disclosure of information provided pursuant to this Section 2.12.

(d) Notwithstanding the foregoing provisions of this Section 2.12, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to matters set forth in this Section 2.12. Nothing in this Section 2.12 shall be deemed to affect the ability of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

(e) Only such business shall be conducted at an annual meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 2.12 (other than nominations for the election of directors, which are governed by Section 2.11 of these By-Laws). The Chairman of the Board of Directors or the Secretary may, if the facts warrant, determine that a notice received by the Corporation relating to an item of business proposed to be introduced at an annual meeting of stockholders does not satisfy the requirements of this Section 2.12 (including if the stockholder does not provide the information required under paragraph (c) of this Section 2.12 to the Corporation within five (5) business days after the record date for the meeting), and if it be so determined, shall so declare and any such business shall not be introduced at such meeting of stockholders, notwithstanding that proxies in respect of such matters may have been received. If the Chairman of a meeting of stockholders determines that business raised at the meeting was not properly brought before the meeting in accordance with the foregoing procedures, the Chairman shall declare to the meeting that the business was not properly brought before the meeting and such business shall not be transacted notwithstanding that proxies in respect of such business may have been received. Notwithstanding the foregoing provisions of this Section 2.12, if the stockholder (or a qualified representative of the stockholder) is not present at the annual meeting of stockholders of the Corporation to propose such business, such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 2.12, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or authorized by a writing executed by such stockholder (or a reliable reproduction or electronic transmission of the writing) delivered to the Corporation prior to the making of such proposal at such meeting by such stockholder stating that such person is authorized to act for such stockholder as proxy at the meeting of stockholders.

(f) For purposes of this Section 2.12: **(i)** a "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Sections 13, 14 or 15(d) of the Exchange Act; **(ii)** the term "associate" shall have the meaning set forth in Rule 14a-1(a) under the Exchange Act; and **(iii)** shares shall be treated as "beneficially owned" by a person if the person beneficially owns such shares, directly or indirectly, for purposes of Section 13(d) of the Exchange Act and Regulations 13D and 13G thereunder or has or shares pursuant to any agreement, arrangement or understanding (whether or not in writing) **(1)** the right to acquire such shares (whether such right is exercisable immediately or only after the passage of time or the fulfillment of a condition or both), **(2)** the right to vote such shares, alone or in concert with others, whether by ownership of such shares, agreement or otherwise and/or **(3)** investment power with respect to such shares, including the power to dispose of, or to direct the disposition of, such shares, and any such person shall be treated as the "beneficial owner" of such shares.

2.13 ***Action without Meeting.*** Stockholders may not take any action by written consent in lieu of a meeting.

2.14 ***Organization.*** The Chairman of the Board, or in his or her absence the President shall call meetings of the stockholders to order, and act as chairman of such meeting; provided, however, that the Board of Directors may appoint any person to act as chairman of any meeting in the absence of the Chairman of the Board. The Secretary of the Corporation shall act as secretary at all meetings of the stockholders; provided, however, that in the absence of the Secretary at any meeting of the stockholders, the acting chairman may appoint any person to act as secretary of the meeting.

ARTICLE 3—DIRECTORS

3.1 ***General Powers.*** The business and affairs of the Corporation shall be managed by or under the direction of a Board of Directors, who may exercise all of the powers of the Corporation except as otherwise provided by law, the Certificate of Incorporation or these By-Laws. In the event of a vacancy in the Board of Directors, the remaining directors, except as otherwise provided by law, may exercise the powers of the full Board of Directors until the vacancy is filled.

3.2 ***Number and Qualification of Directors.*** The number of directors which shall constitute the whole Board of Directors shall be determined by resolution of the Board of Directors, but in no event shall be less than three. The directors need not be stockholders of the Corporation.

3.3 ***Election of Directors.*** The directors shall be elected at the annual meeting of stockholders. At a meeting for the election of directors, each director shall be elected by a majority of the votes cast with respect to that director; *provided* that, if the number of nominees exceeds the number of directorships to be filled (a "contested election"), the directors shall be elected by a plurality of the votes cast. A majority of the votes cast means that the number of shares voted "for" must exceed the number of shares voted "against" with respect to each director's election. The following shall not be counted as votes cast: **(a)** a share whose ballot is marked as withheld; **(b)** a share otherwise present at the meeting but for which there is an abstention; or **(c)** a share otherwise present at the meeting as to which a shareholder gives no authority or direction. If a nominee for director who is not an incumbent director does not receive a majority of the votes cast, the nominee shall not be elected. If an incumbent director who is standing for re-election does not receive a majority of the votes cast, then the Governance & Nominating Committee or another committee of the board authorized to nominate candidates for election to the board will make a recommendation to the Board of Directors as to whether to accept the director's resignation, and as to whether other action should be taken. The director will not participate in the committee's recommendation or the board's decision. The independent members of the board will consider the committee's recommendation and publicly disclose the board's decision and the basis for the decision within 90 days following the date of the certification of the final election results. If less than two members of the committee are elected at a meeting for the election of directors, the independent members of the Board who were elected shall consider and act upon the tendered resignation. If for any reason none of the nominees is elected at a meeting for the election of directors, the incumbent directors shall call a special meeting of the stockholders as soon thereafter as convenient for the purpose of electing a board of directors.

3.4 ***Term of Office.*** Except as otherwise provided in the Certificate of Incorporation or these By-Laws, at each annual meeting of stockholders, all directors shall be elected for a term expiring at the next succeeding annual meeting of stockholders. Each director shall hold office until the election and qualification of his or her successor or until his or her earlier death, resignation or removal.

3.5 ***Removal.*** Any director or the entire board of directors may be removed, with or without cause, by the holders of a majority of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, except to the extent that a different vote is required by law.

3.6 ***Vacancies.*** Any vacancy in the Board of Directors, however occurring, including a vacancy resulting from an enlargement of the Board or from the failure of the stockholders to elect the number of directors then constituting the whole of the Board of Directors at any meeting at which directors are to be elected, shall be filled only by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director. The Board of Directors shall not fill a vacancy on the Board of Directors with any candidate who has not agreed to tender in advance of his or her appointment to the Board an irrevocable resignation to be effective if, pursuant to Section 3.3 above, **(a)** the director does not receive the required majority vote at the next meeting for the election of directors and **(b)** the Board of Directors accepts such resignation. A director elected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office, and a director chosen to fill a position resulting from an increase in the number of directors or the failure to elect the full number of directors shall hold office until the next election of directors, subject to the election and qualification of his or her successor and to his or her earlier death, resignation or removal.

3.7 ***Resignation.*** **(a)** Any director may resign at any time upon notice given in writing or by electronic transmission to the Corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event.

(b) Each director who consents to stand for re-election shall, as a condition to his or her nomination, tender an irrevocable resignation in advance of the meeting for the election of directors. Such resignation will be effective if, pursuant to Section 3.3 above, **(a)** the director does not receive the required majority vote at the next meeting for the election of directors and **(b)** the Board of Directors accepts such resignation.

3.8 ***Regular Meetings.*** The regular meetings of the Board of Directors may be held without notice at such time and place, either within or without the State of Delaware, as shall be determined from time to time by the Board of Directors; provided, that any director who is absent when such a determination is made shall be given notice of the determination. A regular meeting of the Board of Directors may be held without notice immediately after and at the same place as the annual meeting of stockholders.

3.9 ***Special Meetings.*** Special meetings of the Board of Directors may be held at any time and place, within or without the State of Delaware, designated in a call by the Chairman of the Board of Directors, the Chief Executive Officer (or if there is no Chief Executive Officer, the President), two or more directors or by one director in the event that there is only a single director in office.

3.10 ***Notice of Special Meetings.*** Notice of any special meeting of the Board of Directors shall be given to each director by the Secretary or by the officer or one of the directors calling the meeting. The notice shall be duly given to each director **(i)** by giving notice to such director in person or by telephone at least twenty four (24) hours in advance of the meeting, **(ii)** by sending a telecopy or email to the telecopier number or email address designated by each director to the Secretary for the receipt of such notices, or by delivering written notice by hand, to his or her last known business or home address at least twenty four (24) hours in advance of the meeting, or **(iii)** by mailing written notice to his or her last known business or home address at least seventy two (72) hours in advance of the meeting. A notice or waiver of notice of a special meeting of the Board of Directors need not specify the purposes of the meeting.

3.11 ***Meetings by Telephone Conference Calls.*** The Board of Directors or any members of any committee of the Board of Directors designated by the directors may participate in a meeting of the Board of Directors or such committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other. Participation by such means shall constitute presence in person at such meeting.

3.12 ***Quorum.*** A majority of the total number of the whole Board of Directors shall constitute a quorum at all meetings of the Board of Directors. In the event one or more of the directors shall be disqualified to vote at any meeting, then the required quorum shall be reduced by one for each such director so disqualified; provided, however, that in no case shall less than one-third ($^1/_3$) of the number of directors so fixed constitute a quorum. In the absence of a quorum at any such meeting, a majority of the directors present may adjourn the meeting from time to time without further notice, other than announcement at the meeting, until a quorum shall be present.

3.13 ***Action at Meeting.*** At any meeting of the Board of Directors at which a quorum is present, the vote of a majority of those present shall be sufficient to take any action, unless a different vote is specified by law, the Certificate of Incorporation or these By-Laws.

3.14 ***Action by Consent.*** Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee of the Board of Directors may be taken without a meeting, if all members of the Board or committee, as the case may be, consent to the action in writing, and the written consents are filed with the minutes of proceedings of the Board of Directors or committee of the Board of Directors, as applicable.

3.15 *Committees.* The Board of Directors may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members of the committee present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors and subject to the provisions of the Delaware General Corporation Law, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation and may authorize the seal of the Corporation to be affixed to all papers which may require it. Each such committee shall keep minutes and make such reports as the Board of Directors may from time to time request Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these By-Laws for the Board of Directors.

3.16 *Compensation of Directors.* The directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board of Directors may from time to time determine No such payment shall preclude any director from serving the Corporation or any of its parent or subsidiary corporations in any other capacity and receiving compensation for such service.

ARTICLE 4—OFFICERS

4.1 *Enumeration.* The officers of the Corporation shall consist of a Chief Executive Officer, a President, a Chief Financial Officer, a Secretary and a Treasurer. The Board of Directors may appoint other officers with such titles and powers as it may deem appropriate, including, without limitation, one or more Vice Presidents and one or more Controllers.

4.2 *Election.* The Chief Executive Officer, President, Chief Financial Officer, Secretary and Treasurer shall be elected annually by the Board of Directors at its first meeting following the annual meeting of stockholders. Other officers may be appointed by the Board of Directors at such meeting or at any other meeting.

4.3 *Qualification.* No officer need be a stockholder of the Corporation. Any two or more offices may be held by the same person.

4.4 *Tenure.* Except as otherwise provided by law, by the Certificate of Incorporation or by these By-Laws, each officer shall hold office until his or her successor is elected and qualified, unless a different term is specified in the vote choosing or appointing him or her, or until his or her earlier death, resignation or removal.

4.5 ***Resignation and Removal.*** Any officer may resign by delivering his or her written resignation to the Corporation at its principal office or to the Chief Executive Officer or Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Any officer may be removed at any time, with or without cause, by vote of a majority of the entire number of directors then in office.

Except as the Board of Directors may otherwise determine, no officer who resigns or is removed shall have any right to any compensation as an officer for any period following his or her resignation or removal, or any right to damages on account of such removal, whether his of her compensation be by the month or by the year or otherwise, unless such compensation is expressly provided in a duly authorized written agreement with the Corporation.

4.6 ***Vacancies.*** The Board of Directors may fill any vacancy occurring in any office for any reason and may, in its discretion, leave unfilled for such period as it may determine any offices other than those of Chief Executive Officer, President, Secretary and Treasurer. Each such successor shall hold office for the unexpired term of his or her predecessor and until his or her successor is elected and qualified, or until his or her earlier death, resignation or removal.

4.7 ***Chairman of the Board.*** The Board of Directors may appoint a Chairman of the Board. If the Board of Directors appoints a Chairman of the Board, he or she shall perform such duties and possess such powers as are assigned to him or her by the Board of Directors.

4.8 ***Chief Executive Officer.*** The Chief Executive Officer shall, subject to the direction of the Board of Directors, have general charge and supervision of the business of the Corporation. Unless otherwise provided by the Board of Directors, he or she shall preside at all meetings of the stockholders and, if he or she is a director, at all meetings of the Board of Directors. The Chief Executive Officer shall perform such other duties and possess such other powers as the Board of Directors may from time to time prescribe.

4.9 ***President.*** The President shall perform such duties and possess such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. In the event of the absence, inability or refusal to act of the Chief Executive Officer, the President shall perform the duties of the Chief Executive Officer and when so performing shall have all the powers of and be subject to all the restrictions upon the office of Chief Executive Officer.

4.10 ***Chief Financial Officer.*** The Chief Financial Officer shall perform such duties and possess such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. The Chief Financial Officer shall have the custody of the corporate funds and securities; shall keep full and accurate all books and accounts of the Corporation as shall be necessary or desirable in accordance with applicable law or generally accepted accounting principles; shall deposit all monies and other valuable effects in the name and to the credit of the Corporation as may be ordered by the Chairman of the Board or the Board of Directors; shall cause the funds of the Corporation to be disbursed when such disbursements have been duly authorized, taking proper vouchers for such disbursements; and shall render to the Board of Directors, at its regular meeting or when the Board of Directors so requires, an account of the Corporation.

4.11 ***Vice Presidents.*** Any Vice President shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the President may from time to time prescribe. The Board of Directors may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other such title.

4.12 ***Controllers.*** Any Controller shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or any Vice President may from time to time prescribe.

4.13 ***Secretary.*** The Secretary shall perform such duties and possess such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are incident to the office of the Secretary, including without limitation the duty and power to give notices of all meetings of stockholders and special meetings of the Board of Directors, to attend all meetings of stockholders and the Board of Directors and keep a record of the proceedings, to maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

In the event of the absence, inability or refusal to act of the Secretary at any meeting of stockholders or directors, the person presiding at the meeting shall designate a temporary secretary to keep a record of the meeting.

4.14 ***Treasurer.*** The Treasurer shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Chief Financial Officer may from time to time prescribe. In addition, the Treasurer shall perform such duties and have such powers as are incident to the office of Treasurer, including without limitation the duty and power to keep and be responsible for all funds and securities of the Corporation, to deposit funds of the Corporation in depositories selected in accordance with these By-Laws, to disburse such funds as ordered by the Board of Directors, to make proper accounts of such funds, and to render as required by the Board of Directors statements of all such transactions and of the financial condition of the Corporation. Unless the Board of Directors has designated another officer as Chief Financial Officer, the Treasurer shall be the Chief Financial Officer of the Corporation. In the event of the absence, inability or refusal to act of the Treasurer, the Board of Directors shall appoint a temporary treasurer, who shall perform the duties and exercise the powers of the Treasurer.

4.15 ***Other Officers, Assistant Officers and Agents.*** Officers, assistant officers and agents, if any, other than those whose duties are provided for in these By-Laws, shall have such authority and perform such duties as may from time to time be prescribed by resolution of the Board of Directors.

4.16 ***Salaries.*** Officers of the Corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board of Directors.

ARTICLE 5—CAPITAL STOCK

5.1 ***Certificates of Stock.*** Every holder of stock of the Corporation shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board of Directors, certifying the number and class of shares owned by him or her in the Corporation. Each such certificate shall be signed by, or in the name of the Corporation by the Chairman of the Board of Directors, the Chief Executive Officer or the President, and the Treasurer or the Secretary of the Corporation. Any or all of the signatures on the certificate may be a facsimile. Each certificate for shares of stock which are subject to any restriction on transfer pursuant to the Certificate of Incorporation, the By-Laws, applicable securities laws or any agreement among any number of stockholders or among such holders and the Corporation shall have conspicuously noted on the face or back of the certificate either the full text of the restriction or a statement of the existence of such restriction.

5.2 ***Transfers.*** Except as otherwise established by rules and regulations adopted by the Board of Directors, and subject to applicable law, shares of stock may be transferred on the books of the Corporation by the surrender to the Corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or the authenticity of signature as the Corporation or its transfer agent may reasonably require. Except as may be otherwise required by law, by the Certificate of Incorporation or by these By-Laws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock, until the shares have been transferred on the books of the Corporation in accordance with the requirements of these By-Laws.

5.3 ***Lost, Stolen or Destroyed Certificates.*** The Corporation may issue a new certificate of stock in place of any previously issued certificate alleged to have been lost, stolen, or destroyed, upon such terms and conditions as the Board of Directors may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity as the Board of Directors may require for the protection of the Corporation or any transfer agent or registrar.

5.4 Record Date. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders, or to receive payment of any dividend or other distribution or allotment of any rights or to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may, except as otherwise required by law, fix a record date, which record date shall not precede the date on which the resolution fixing the record date is adopted and which record date shall not be more than sixty (60) nor less than ten (10) days before the date of any meeting of stockholders, nor more than sixty (60) days prior to the time for such other action as hereinbefore described; *provided*, *however*, that if no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held, and, for determining stockholders entitled to receive payment of any dividend or other distribution or allotment of rights or to exercise any rights of change, conversion or exchange of stock or for any other purpose, the record date shall be at the close of business on the day on which the Board of Directors adopts a resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

5.5 ***Dividends.*** Subject to limitations contained in the Delaware General Corporation Law, the Certificate of Incorporation and these By-Laws, the Board of Directors may declare and pay dividends upon the shares of capital stock of the Corporation, which dividends may be paid either in cash, in property or in shares of the capital stock of the Corporation.

ARTICLE 6—GENERAL PROVISIONS

6.1 ***Fiscal Year.*** Except as from time to time otherwise designated by the Board of Directors, the fiscal year of the Corporation shall begin on the first day of January in each year and end on the last day of December in each year.

6.2 ***Corporate Seal.*** The corporate seal, if any, shall be in such form as shall be approved by the Board of Directors.

6.3 ***Form of Notice.*** Whenever any notice whatsoever is required to be given in writing to any stockholder by law, by the Certificate of Incorporation or by these By-Laws, such notice may be given by a form of electronic transmission pursuant to Section 232 of the Delaware General Corporation Law if the stockholder to whom such notice is given has previously consented to the receipt of notice by electronic transmission.

6.4 ***Waiver of Notice.*** A written waiver of any notice, signed by a stockholder or director, or waiver by electronic transmission by such person, whether given before or after the time of the event for which notice is to be given, shall be deemed equivalent to the notice required to be given to such person. Neither the business nor the purpose of any meeting need be specified in such a waiver. Attendance at any meeting shall constitute waiver of notice except attendance for the sole purpose of objecting to the timeliness of notice.

6.5 ***Voting of Securities.*** Except as the directors may otherwise designate, the Chief Executive Officer or Treasurer may waive notice of, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for this Corporation (with or without power of substitution) at, any meeting of stockholders or shareholders of any other corporation or organization, the securities of which may be held by this Corporation.

6.6 ***Evidence of Authority.*** A certificate by the Secretary, or a temporary secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the Corporation shall, as to all persons who rely on the certificate in good faith, be conclusive evidence of such action.

6.7 ***Certificate of Incorporation.*** All references in these By-Laws to the Certificate of Incorporation shall be deemed to refer to the Certificate of Incorporation of the Corporation, as amended or restated and in effect from time to time.

6.8 ***Transactions with Interested Parties.*** No contract or transaction between the Corporation and one or more of the directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of the directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or a committee of the Board of Directors which authorizes the contract or transaction or solely because his, her or their votes are counted for such purpose, if:

(1) The material facts as to his, her or their relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board of Directors or committee of the Board of Directors in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum;

(2) The material facts as to his, her or their relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

(3) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified by the Board of Directors, a committee of the Board of Directors, or the stockholders.

Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

6.9 ***Severability.*** Any determination that any provision of these By-Laws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these By-Laws.

6.10 ***Pronouns.*** All pronouns used in these By-Laws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person or persons may require.

6.11 ***Contracts.*** In addition to the powers otherwise granted to officers pursuant to Article 4 hereof, the Board of Directors may authorize any officer or officers, or any agent or agents, of the Corporation to enter into any contract or to execute and deliver any instrument in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances.

6.12 ***Loans.*** The Corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the Corporation or of its subsidiaries, including any officer or employee who is a Director of the Corporation or its subsidiaries, whenever, in the judgment of the Directors, such loan, guaranty or assistance may reasonably be expected to benefit the Corporation. The loan, guaranty or other assistance may be with or without interest, and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the Corporation. Nothing in this section shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the Corporation at common law or under any statute.

6.13 ***Inspection of Books and Records.*** The Board of Directors shall have power from time to time to determine to what extent and at what times and places and under what conditions and regulations the accounts and books of the Corporation, or any of them, shall be open to the inspection of the stockholders; and no stockholder shall have any right to inspect any account or book or document of the Corporation, except as conferred by the laws of the State of Delaware, unless and until authorized so to do by resolution of the Board of Directors or of the stockholders of the Corporation.

6.14 ***Section Headings.*** Section headings in these By-Laws are for convenience of reference only and shall not be given any substantive effect in limiting or otherwise construing any provision herein.

6.15 ***Inconsistent Provisions.*** In the event that any provision of these By-Laws is or becomes inconsistent with any provision of the Certificate of Incorporation, the Delaware General Corporation Law or any other applicable law, the provision of these By-Laws shall not be given any effect to the extent of such inconsistency but shall otherwise be given full force and effect.

ARTICLE 7—INDEMNIFICATION

7.1 ***Right to Indemnification.*** Each person who was or is made a party or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a “proceeding”), by reason of the fact that he or she is or was a director or an officer of the Corporation or is or was serving at the request of the Corporation as a director, officer or trustee of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan (hereinafter an “indemnitee”), whether the basis of such proceeding is alleged action in an official capacity as a director, officer or trustee or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the Delaware General Corporation Law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such indemnitee in connection therewith; provided, however, that, except as provided in Section 7.3 of this Article 7 with respect to proceedings to enforce rights to indemnification, the Corporation shall indemnify any such indemnitee in connection with a proceeding (or part thereof) initiated by such indemnitee only if such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation.

7.2 ***Right to Advancement of Expenses.*** In addition to the right to indemnification conferred in Section 7.1 of this Article 7, an indemnitee shall also have the right to be paid by the Corporation the expenses (including attorney's fees) incurred in defending any such proceeding in advance of its final disposition (hereinafter an "advancement of expenses"); provided, however, that, if the Delaware General Corporation Law requires, an advancement of expenses incurred by an indemnitee in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Corporation of an undertaking (hereinafter an "undertaking"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "final adjudication") that such indemnitee is not entitled to be indemnified for such expenses under Section 7.1 or otherwise.

7.3 ***Right of Indemnitee to Bring Suit.*** If a claim under Section 7.1 or 7.2 of this Article 7 is not paid in full by the Corporation within sixty (60) days after a written claim has been received by the Corporation, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. If successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall be entitled to be paid also the expense of prosecuting or defending such suit. In **(i)** any suit brought by the indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the indemnitee to enforce a right to an advancement of expenses) it shall be a defense that, and **(ii)** in any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, the indemnitee has not met any applicable standard for indemnification set forth in the Delaware General Corporation Law. Neither the failure of the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the indemnitee is proper in the circumstances because the indemnitee has met the applicable standard of conduct set forth in the Delaware General Corporation Law, nor an actual determination by the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) that the indemnitee has not met such applicable standard of conduct, shall create a presumption that the indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the indemnitee, be a defense to such suit In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article 7 or otherwise shall be on the Corporation.

7.4 ***Non-Exclusivity of Rights.*** The rights to indemnification and to the advancement of expenses conferred in this Article 7 shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, the Corporation's Certificate of Incorporation, By-Laws, agreement, vote of stockholders or directors or otherwise.

7.5 ***Insurance.*** The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the Delaware General Corporation Law.

7.6 ***Indemnification of Employees and Agents of the Corporation.*** The Corporation may, to the extent authorized from time to time by the Board of Directors, grant rights to indemnification and to the advancement of expenses to any employee or agent of the Corporation to the fullest extent of the provisions of this Article with respect to the indemnification and advancement of expenses of directors and officers of the Corporation.

7.7 ***Nature of Rights.*** The rights conferred upon indemnitees in this Article 7 shall be contract rights and such rights shall continue as to an indemnitee who has ceased to be a director, officer or trustee and shall inure to the benefit of the indemnitee's heirs, executors and administrators. Any amendment, alteration or repeal of this Article 7 that adversely affects any right of an indemnitee or its successors shall be prospective only and shall not limit or eliminate any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to such amendment or repeal.

ARTICLE 8—AMENDMENTS

8.1 ***By the Board of Directors.*** These By-Laws may be altered, amended or repealed or new By-Laws may be adopted by the affirmative vote of a majority of the directors present at any regular or special meeting of the Board of Directors at which a quorum is present.

8.2 ***By the Stockholders.*** Notwithstanding any other provision of law, the Certificate of Incorporation or these By-Laws, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least seventy-five percent (75%) of the shares of the capital stock of the Corporation issued and outstanding and entitled to vote shall be required to alter, amend or repeal any provision of these By-Laws or to adopt new By-Laws.

Exhibit 10.1

Execution Copy

SECOND AMENDED AND RESTATED
MEMBRANE MANUFACTURE AND SUPPLY AGREEMENT

This Second Amended and Restated Membrane Manufacture and Supply Agreement (this "Agreement") is entered into effective as of December 19, 2008 (the "Effective Date"), between Millipore Corporation ("Millipore"), a Massachusetts corporation with its principal place of business at 290 Concord Road, Billerica, MA 01821, and Entegris, Inc. ("Entegris"), a Delaware corporation with its principal place of business at 3500 Lyman Boulevard, Chaska, MN 55318.

RECITALS

1. The Parties entered into an Amended and Restated Membrane Manufacture and Supply Agreement dated as of November 30, 2005 (the "Old Agreement") which among other things provided for the manufacture and supply of certain membranes that are used by and incorporated into products of both Millipore and Entegris, so as to appropriately ensure both Millipore and Entegris a continuing supply of such membranes.

2. Entegris plans to move its operations out of Millipore's facility in an orderly manner, and both Parties desire to coordinate such move without disruption to the mutual supply relationship between them.

3. Accordingly, the Parties wish to amend and restate certain provisions of the Old Agreement and to cancel and replace the Old Agreement as of the Effective Date with this Agreement.

NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements set forth below, the parties hereto agree as follows:

1. <u>DEFINITIONS</u>

The following terms shall have the meanings assigned to them below whenever they are used in this Agreement including the Exhibits and Annexes hereto. Terms defined elsewhere in this Agreement shall have the meaning ascribed thereto at the location of their definition. Except where the context otherwise requires, words imparting the singular shall include the plural and vice versa, words denoting any gender shall include all genders and words denoting persons shall include bodies corporate and vice versa.

"Affiliated Company" of one of the parties shall mean any entity that controls, is controlled by, or is under common control with such party. As used herein, "control" means the possession, directly or indirectly, or the power to direct or cause the direction of the management and policies of such entity, whether through ownership of voting securities or other interests, by contract or otherwise.

"Confidential Information" shall have the meaning set forth in Section 13.1 hereof.

"Entegris Core Business" shall mean: **(i)** the **IC MANUFACTURING INDUSTRY** including companies that manufacture integrated circuits, semiconductors, semiconductor chips and other microelectronics components, flat panel displays, solar cells and fiber optic cables, optical coatings, coated optical lenses and coated optical fibers; **(ii)** the **IC OEM EQUIP & MATERIALS MFG. INDUSTRY** including companies that manufacture equipment for the fabrication and processing of semiconductors and integrated circuits for sale to companies in the IC Manufacturing Industry as well as companies that integrate a number of components into subsystems sold to OEM equipment manufacturers for incorporation into semiconductor fabrication equipment, as well as companies that manufacture, process and supply liquids, gases, conductive materials and other advanced materials to the IC Manufacturing Industry and which provide products and systems to purify, monitor and control atmospheric conditions in clean room manufacturing environments of the IC Manufacturing Industry; and **(iii)** the **IC RESEARCH LABORATORY INDUSTRY** including university, governmental and commercial laboratories and research operations that research and/or develop innovations in the structure and composition of integrated circuits, the processes and materials used to manufacture integrated circuits and new forms of integrated circuits.

"Entegris Equipment" shall have the meaning set forth in Section 3.1.1 hereof.

"Entegris Permitted Persons" shall have the meaning set forth in Exhibit B.

"Equipment" shall mean the Entegris Equipment and the Millipore Equipment collectively.

"Facility Term" shall mean the period commencing on the Effective Date and ending on December 31, 2010, or until this Agreement is terminated early in accordance with Section 6.2.

"Flat Sheet UPE Membranes" shall mean rollstock UPE Membranes typically less than 300 microns in sheet thickness including both phobic and philic Membranes as produced at the Premises pursuant to the Old Agreement immediately prior to the Effective Date, or as modified as provided in this Agreement.

"Information" shall mean business information, technical information and data, know-how, research information and data, formulae and other information, whether or not patentable or copyrightable, in written, oral, electronic or other tangible or intangible forms, stored in any medium, including studies, reports, records, books, contracts, instruments, surveys, discoveries, ideas, concepts, know-how, techniques, designs, specifications, drawings, blueprints, diagrams, models, prototypes, samples, flow charts, data, computer data, disks, diskettes, tapes, computer programs or other software, marketing plans, customer names, communications by or to attorneys (including attorney-client privileged communications), memos and other materials prepared by attorneys or under their direction (including attorney work product), and other technical, financial, employee or business information or data.

"Lease" shall mean the lease of the Premises as set forth in Section 2 hereof and in the Lease terms set forth in Exhibit B hereto.

"Machines" shall have the meaning set forth in Section 7.1 hereof.

"Machine Hourly Rates" shall have them meaning set forth in Section 7.1. hereof.

"Membranes" shall mean UPE Membranes as well as any other membranes or materials that the parties may hereafter agree to add to this definition of Membranes.

"Millipore Core Business" shall mean: **(i)** the **BIOPHARM INDUSTRY** including pharmaceutical/biotechnology and genetic engineering companies as well as manufacturers of cosmetics, medical devices, diagnostic products and clinical analytical products; **(ii)** the **LAB & LIFE SCIENCE RESEARCH INDUSTRY** including government, university and private research and testing analytical laboratories for proteomic, genomic, microbiological and similar research and analysis as well as for environmental research and analysis; and **(iii)** the **FOOD & BEVERAGE INDUSTRY** including companies that manufacture or process foods and beverages including dairy products, beer, wine, juice and soft drink manufacturers and bottled water companies.

"Millipore Equipment" shall have the meaning set forth in Section 3.1.2 hereof.

"New Entegris Facility" shall mean the facility at a location chosen by Entegris on property not owned by Millipore to which Entegris will relocate all of its manufacturing operations from the Premises.

"Original Contract Date" shall mean March 31, 2001.

"Other Flat Sheet UPE Membranes" shall mean Flat Sheet UPE Membranes other than Treated Flat Sheet UPE Membranes. Other Flat Sheet UPE Membranes include, as of the Effective Date, those Membranes listed under the heading "Other Flat Sheet UPE Membranes" in Exhibit A hereto.

"Other UPE Membranes" shall mean all UPE Membranes other than Treated Flat Sheet UPE Membranes.

"Other UPE Products" shall mean devices or other products which include Other UPE Membranes as a material or component.

“PFA Hollow Fiber Membranes” shall mean tubular PFA membranes having an outer diameter in the range of 500-1000 mm and an inner diameter of 100-500 mm.

“Premises” shall have the meaning set forth in Exhibit B.

“Releases” shall mean any purchase orders or other documents of purchase that Millipore may place with Entegris for UPE Membranes.

“Rent” shall have the meaning set forth in Exhibit B.

“Subsidiary” of one of the parties shall mean any entity that is controlled by such party. As used herein, “control” of an entity means the possession, directly or indirectly, or the power to direct or cause the direction of the management and policies of such entity, whether through ownership of voting securities or other interests, by contract or otherwise.

“Supplement” shall mean the schedule of supplemental terms and conditions specifying detailed provisions to implement the contractual commitments set forth in this Agreement relating to membrane manufacturing operations and membrane manufacturing process improvements which is attached to this Agreement as **Exhibit C**.

“Supplied Party” shall mean a party to this Agreement that orders certain Membranes pursuant to this Agreement and to whom such Membranes are sold.

“Supplying Party” shall mean a party to this Agreement that manufactures certain Membranes ordered by the other party pursuant to this Agreement and that sells such Membranes to the other party.

“Term” or **“Term of this Agreement”** shall mean the effective period of this Agreement as set forth in Section 6 hereof.

“Treated Entegris Membranes” shall mean Treated Flat Sheet UPE Membranes and Treated Other Entegris Membranes.

“Treated Entegris Products” shall mean devices or other products which include Treated Entegris Membranes as a material or component.

“Treated Other Entegris Membranes” shall mean those Entegris membranes that are chemically treated using Millipore’s VMF4 Line or using Millipore’s patented VMF4 technology, including, as of the Effective Date, those membranes listed under the heading “Treated Other Entegris Membranes” in Exhibit A hereto.

“Treated Flat Sheet UPE Membranes” shall mean Flat Sheet UPE Membranes that are chemically treated using Millipore’s VMF4 Line or using Millipore’s patented VMF4 technology, including, as of the Effective Date, those Membranes listed under the heading “Treated Flat Sheet UPE Membranes” in Exhibit A hereto.

“UPE Membranes” shall mean microporous membranes produced from an ultrahigh molecular weight polyethylene material by a melt cast process, as produced pursuant to the Old Agreement at the Premises immediately prior to the Effective Date, or as modified as provided in this Agreement.

“UPE Products” shall mean devices or other products which include UPE Membranes as a material or component.

1A. TRANSITION OF MANUFACTURING

1A.1 ***Move***. The parties have agreed that Entegris will move its membrane manufacturing operations currently conducted in the Premises to the New Entegris Facility in an orderly manner (the “Move”) during the Facility Term.

1A.2 ***Timing***. Entegris will not move any equipment or operations sooner than July 2009. Subject to the achievement of required safety stocks as described in Section 5.7, Entegris will complete the Move and have vacated the Premises no later than the end of the Facility Term. Entegris will prepare a detailed move schedule and provide it to Millipore by December 31,2008 .The parties will review and update the schedule during the Facility Term on a monthly basis as the Move progresses. Millipore will supply its requirements for feasibility and qualification rolls in coordination with the schedule.

1A.3 ***Coordination***. The parties will work together in good faith to facilitate such Move to minimize disruptions and costs to both parties.

1A.4 ***Qualification***. Prior to the reduction or cessation of production of Membranes at the Premises, Entegris will establish its own new UPE annealing capability at the New Entegris Facility. Millipore will use its commercially reasonable efforts, in conjunction with Entegris, to qualify the Entegris’ manufacturing process at the New Entegris Facility to enable the supply of qualified Membranes. Entegris will provide to Millipore in parallel with such qualification a reasonable quantity of rolls of UPE Membrane necessary for Millipore to conduct feasibility and qualification testing. All such feasibility and evaluation rolls provided to Millipore by Entegris will meet all existing Entegris specifications as agreed by the parties. If, despite each party’s commercially reasonable efforts, Millipore is unable to qualify the Entegris UPE annealing line, Millipore reserves the right to perform the annealing process itself. In such circumstances, Entegris shall provide to Millipore a sufficient quantity of extracted gel rolls, at appropriately adjusted prices, to enable Millipore to produce sufficient finished product to meet Entegris’ obligations for such finished product.

1A.5 ***No Supply Disruption***. Notwithstanding the Move, Entegris will at all times during the Term of this Agreement continue to meet its supply obligations to Millipore under this Agreement of any Membranes from a manufacturing process qualified by Millipore. It is the expectation of the parties that Entegris will produce Membranes from both facilities initially and, after the Facility Term, if the New Entegris Facility and its processes are qualified by Millipore, solely from the New Entegris Facility.

1A.6 ***No VMF4 Disruption***. Notwithstanding the Move, Millipore will at all times during the Term of this Agreement continue to meet its obligations to Entegris under this Agreement to provide hydrophilization of any Membranes on its VMF4 Line.

1A.7 ***Costs***. Entegris will bear all costs of dismantling, packaging, freight, shipping, installation, testing and requalification of all Entegris Equipment to be removed from the Premises.

1A.8 ***Transfer to New Annealing Line***. If Entegris' new UPE annealing process can be qualified successfully by Millipore as provided above,, then after such qualification Millipore shall have Millipore membrane processed by Entegris on the new Entegris annealing machine with pricing based on the costs associated with the new machine and forego any payment for existing Film I Annealing machine hours from Entegris. Prior to any successful qualification of such new process to Millipore's reasonable satisfaction, Millipore shall have Millipore membrane continue to be processed on the existing Film I annealing machine at the Premises with Entegris continuing to be charged the same rates and pricing then in effect. Any such shifting of production shall not result in a termination of the Agreement, which may be only be terminated in accordance with its terms.

2. LEASE OF THE PREMISES

In order to enable Entegris to manufacture UPE Membranes, including Treated Flat Sheet UPE Membranes and Other Flat Sheet UPE Membranes, and Treated Other Entegris Membranes in the same production areas at Millipore's facility at 80 Ashby Road, Bedford MA. and/or such additional, reduced or substituted areas all as described in greater detail in Exhibit B hereto, and with the same processes as such UPE Membranes and Treated Other Entegris Membranes were manufactured prior to the Effective Date (both (i) for its own use and sale and for its sale of UPE Products and (ii) for supply of Flat Sheet UPE Membranes to Millipore as provided in this Agreement), Millipore and Entegris agree to the arrangements regarding Entegris' use of the Premises as are set forth in Exhibit B hereto for the duration of the Facility Term.

3. OWNERSHIP AND USE OF THE EQUIPMENT

3.1. ***Ownership.*** For purposes of clarification, the parties acknowledge and agree that:

3.1.1. All right, title and interest in and to the following equipment currently used in the manufacture of UPE Membranes and/or Treated Other Entegris Membranes, now exists with, and is solely owned by Entegris (collectively, the "Entegris Equipment"):

Item#	Description	Current Location	Quantity
1.	Slurry Mixing Vessels	Bldg C – Mix Room	2
2.	Extrusion Line & support equipment (cranes, vents etc.)	Bldg D-101	1
3.	NZE Extractors & support equipment (scales, vents etc.)	Bldg C-103	2
4.	Release/Testing Equipment (porosimeter, flow stands, VBP stands, digital dimension equipment)	Bldg D-101	1
5.	Monomer Chemical Mixing Vessel (for philic Flat Sheet UPE Membranes)	Bldg C – Mix Room	1
6.	MSR Batch Extractors & support equipment (cranes, LS-15, etc.)	Bldg D-101	3
7.	Release/Testing Equipment (flow stands, VBP stands, digital dimension equipment)	Bldg F-Cell 5	1
8.	CUPE Mix/recirculation Pumps	Bldg C-Mix Room	2
9.	NZE Chiller Loop (~100 Tons)	Bldg C-Roof	1
10.	Oil Mist Collector (and duct/hood)	Bldg D-101	1
11.	7 Ton Edwards Chiller	Bldg D-outside	1
12.	Tiyoda-Serec Extractor	Bldg F-Cell 5	1
13.	Tiyoda-Serec Ext 42 Ton Chiller	Bldg C-roof	1

3.1.2. All right, title and interest in and to any equipment other than the Entegris Equipment used in the manufacture of UPE Membranes and/or Treated Other Entegris Membranes, including the following equipment currently used in such manufacture (collectively, the "Millipore Equipment") is solely owned by Millipore:

Item#	Description	Current Location	Quantity
1.	Slurry Mix Stations; Control Modules 1-3	Bldg C-105	3
2.	Film 1 Annealing Line	Bldg. C-123	1
3.	VMF 4 Line (chemical modification)	Bldg. C-124	1
4.	Testing: Flow, Wet Time, Stability	Bldg. C-124	various
5.	Monomer Chemical Mixing Stations 4-6	Bldg. C-105	3

3.2. ***Use of Millipore Equipment and Support***. At all times during the Facility Term, Millipore shall provide Entegris with access to and use of the Millipore Equipment, each as necessary for use in the manufacture of UPE Membranes or Treated Other Entegris Membranes in accordance with Article I of the Supplement. Entegris shall pay Millipore Machine Hourly Rates as set forth in Section 7.1 below with respect to the use of the Millipore Equipment. At all times during the Term of this Agreement Millipore will provide a reasonable level of operational assistance and general technical support assistance in resolving technical problems in UPE Membrane manufacture occurring at the Premises in accordance with Article I of the Supplement. Millipore shall be responsible for maintaining the Millipore Equipment in its current operational capability, and Entegris shall be responsible for maintaining the Entegris Equipment in its current operational capability and condition, in each case as specified in Article I of the Supplement, unless the parties agree in writing during the Term of this Agreement to alter such maintenance responsibilities. To the extent Millipore provides extraordinary services to Entegris, such services will be charged in accordance with the rate structure specified in Section 7.3 of the Agreement.

4. MANUFACTURE OF MEMBRANES

4.1. ***Membrane Manufacturing Operations.*** Millipore and Entegris agree that Membrane manufacturing operations during the Term of this Agreement shall be carried out in accordance with this Section 4 and with Article I of the Supplement.

4.2. ***Guaranteed Capacity.*** **4.2.1.** At all times during the Term of this Agreement, Millipore agrees to have VMF4 Line capacity sufficient to handle projected philic Membrane volumes hereunder of up to 280,000 feet (~800 hours) per quarter. If necessary and at Millipore's discretion, this capacity can be accomplished by either moving Millipore products (i.e. products other than the Membranes covered by this Agreement) to Millipore's MML hydrophilization equipment or by moving philic Membranes covered by this Agreement to the MML hydrophilization equipment if mutually agreed upon with cost impact to be agreed upon in advance.

4.2.2. At all times during the Facility Term, Millipore agrees to have (i) Film 1 Annealing Line processing capacity sufficient to handle projected phobic Membrane volumes hereunder of up to 3,200,000 feet (~1400 hours) per quarter, and (ii) mix capacity sufficient to handle up to four (4) mixes of 400 pounds each on any days on which Entegris is running its extrusion process on the Premises.

4.2.3. At all times during the Facility Term, Entegris agrees to generally schedule operations in alignment with Millipore's plan for shutdown periods and holidays. However, it is acknowledged and agreed that there will be times of high demand during the Facility Term where Entegris will be required to run the Entegris Equipment during these times. In such cases, Millipore and Entegris will mutually agree on a plan allowing for high utilization of the Entegris Equipment.

4.2.4. Subject to any new or changed restrictions imposed by the applicable air emission permit(s), Entegris agrees to have sufficient capacity, across all relevant process steps, to meet Millipore's projected demand for phobic UPE Membranes that meet agreed specifications and qualification in an amount of guaranteed capacity per each calendar quarter during the Term of this Agreement of 300,000 feet. Through mutual written agreement, this guaranteed capacity level can be reduced to 200,000 feet for a mutually agreed upon time period should Millipore's firm and forecasted releases warrant.

4.2.5 The parties agree to commence good faith discussions in the first calendar half of 2011 regarding the possibility of continuing Entegris' access to Millipore's VMF4 Line capacity beyond the Term of this Agreement on terms and conditions mutually acceptable to both parties, if any.

4.3. ***Capacity Expansion.*** Membrane manufacturing capacity will be reviewed in accordance with a mutually agreed upon schedule during the Term of this Agreement, but no less often than annually. Entegris shall be responsible to review and report on the capacity of the Entegris Equipment and Millipore shall be responsible to review and report on the capacity of the Millipore Equipment. The results of these reviews will be discussed and documented for reference and to provide a basis for capacity expansion, as may be appropriate and agreed by the parties.

4.4. ***Manufacturing Process Improvements.*** Millipore and Entegris agree to implement mutually agreeable Membrane manufacturing process improvements.

4.5. ***End of Term Arrangements for Millipore***. Following the expiration or earlier termination of the Term of this Agreement, Millipore desires the full capabilities to manufacture (or have manufactured) UPE Membranes for its and its Affiliated Companies' use and sale, and for its and its Affiliated Companies' use in manufacturing (or having manufactured) UPE Products for sale. Accordingly, to facilitate Millipore's manufacture of UPE Membranes following the Term of this Agreement:

4.5.1 (i) Entegris agrees in the event that Entegris during the Term of this Agreement acquires and has installed at the Premises new equipment in replacement of the existing Extrusion Line, or otherwise determines during the Term of this Agreement, in its sole discretion, that the Extrusion Line and/or one NZE Extractor are surplus and are to be disposed of, then Entegris agrees to grant Millipore an option to purchase, prior to or at the termination of this Agreement, at their then current book values and at such other reasonable terms as the parties may agree, such surplus Extrusion Line and/or NZE Extractor. Upon consummation of any such sale transaction, Entegris agrees to leave in their then current locations at the Premises, the subject Extrusion Line and/or NZE Extractor, as the case may be. Entegris agrees to notify Millipore as to whether it is granting Millipore such an option, at least eighteen (18) months prior to the termination of this Agreement; and

4.5.2 In the event that the parties consummate a sale of any equipment deemed to be surplus by Entegris as specified above, Entegris agrees to provide Millipore with the know-how (including copies of all pertinent documentation) and a reasonable amount of transition assistance relating to the design, specifications, functionality, operation and maintenance of such equipment, or otherwise necessary or useful for Millipore to be able to continue the UPE Membrane manufacturing process immediately upon the termination of this Agreement, so as to be able to make or have made UPE Membrane in the same process and of the same quality as made and supplied under this Agreement. All Entegris transition assistance time shall be charged to Millipore at the rates per person-hour calculated in accordance with Section 7.3 below.

4.6. ***<u>End of Term Arrangements for Entegris.</u>***

To facilitate Entegris' manufacture of UPE Membranes and Treated Entegris Membranes at a different location following the expiration or earlier termination of this Agreement:

4.6.1. Entegris shall remove and transport, at its own expense, the Entegris Equipment (subject to the consummation of any sale pursuant to any option to purchase certain items of such Entegris Equipment as specifically set forth in Subsection 4.5.1 above) from the Premises to a location of its choice within one-hundred eighty (180) days following such expiration or early termination. Entegris shall use its best efforts to avoid or minimize damage to the Premises or to any other part of Millipore's 80 Ashby Road facility from such removal, and shall promptly reimburse Millipore for its reasonable and actual costs of repairing any damage to the extent caused by Entegris or its agents or representatives in the process of removing the Entegris Equipment from the Premises or any other parts of such facility; and,

4.6.2. Millipore shall provide Entegris with know-how (including copies of all pertinent documentation) and a reasonable amount of transition assistance relating to the design, specifications, functionality, operation and maintenance of the Millipore Equipment, such that Entegris can make or have made, and operate and maintain, equipment substantially equivalent or comparable to the Millipore Equipment, or successfully outsource the functions performed by the Millipore Equipment, in the manufacture of UPE Membranes and Treated Other Entegris Membranes. All Millipore transition assistance shall be charged to Entegris at the rates per person-hour calculated in accordance with Section 7.3 below.

4.7. ***Joint Know-How***. In the event that any know-how results from or is developed in the course of the manufacture of UPE Membranes or Treated Other Entegris Membranes in the Premises during the Facility Term of this Agreement (including the use of Millipore Equipment in such manufacture), whether by employees of Millipore, employees of Entegris or jointly, such know-how shall be jointly owned by Entegris and Millipore. Millipore shall have rights to use such know-how in all fields other than the Entegris Core Business, and Entegris shall have rights to use such know-how in all fields other than the Millipore Core Business.

4.8. ***Additional Membranes***. Entegris shall have the right to add other membranes to the list and definition of "UPE Membranes" during the Term of this Agreement, subject to (i) Millipore's approval (on grounds of safety, compliance with laws, or avoidance of damage to the Millipore Equipment, the Premises or any other parts of Millipore's 80 Ashby Road facility) of the manufacture of such additional UPE Membranes, which approval shall not be unreasonably withheld or delayed, and (ii) Millipore's having sufficient space and equipment capacity for such additional manufacture, and (iii) scheduling of use of the Millipore Equipment as shall be negotiated by the parties in good faith.

5. SUPPLY OF MEMBRANES

5.1. ***Sale of Membrane***. Entegris agrees to sell to Millipore Flat Sheet UPE Membranes, in the amounts contained in Millipore's Releases, at all times during the Term and, in the event this Agreement is terminated by Entegris pursuant to Section 6.2 (iii), at all times following the Term through and including December 31, 2012 or until any event prior thereto that would have given rise to Entegris' right to terminate this Agreement pursuant to Section 6.2 (i) or (ii). Except as set forth in Section 5.4 hereof, neither party shall have any minimum or maximum purchase requirements for any or all of such Membranes hereunder, either per order or in the aggregate.

5.2. ***Terms of Sale***. Unless otherwise agreed by both parties in writing, this Agreement applies to all Releases placed by a Supplied Party with a Supplying Party during the Term. The terms and conditions of this Agreement shall apply to any Release, whether or not this Agreement or its terms and conditions are expressly referenced in the Release. All Membrane shall be tested, inspected and packaged for delivery by the Supplying Party as mutually agreed by the parties.

5.3. ***Priority***. Unless otherwise agreed by both parties in writing for a specific transaction, no inconsistent or additional term or condition in any Release, or in any acknowledgment, invoice or other document issued by a Supplying Party or its representative in connection with a particular purchase by a Supplied Party, shall be applicable to a transaction within the scope of this Agreement. Both parties specifically agree that any terms and conditions in any such documents which are in any way inconsistent with this Agreement shall be inapplicable, and the terms of this Agreement shall govern.

5.4. ***Forecasts and Releases***.

5.4.1 Millipore will provide Entegris with a rolling one-year forecast of its demand for UPE Membranes hereunder, by calendar quarter (a "One-Year Forecast"), which will be updated on a quarterly basis, at least thirty (30) days prior to the start of each calendar quarter. The sub-forecast for the first three (3) months within any One-Year Forecast shall be referred to as a "3 Month Forecast". Millipore must provide Releases for delivery, during the three (3) months covered by any 3 Month Forecast, of UPE Membranes in at least those quantities set forth in such 3 Month Forecast. Except for such semi binding nature of the 3 Month Forecasts as described more specifically at 5.4.3 below, the One-Year Forecasts will be used for planning purposes only and are not binding. Entegris will ship UPE Membranes so as to arrive on the delivery date set forth in a Release, provided that the delivery date set forth in such Release is not less than thirty (30) days following the date Entegris receives such Release and provided that the quantities set forth in such Release, together with those in all other Releases calling for delivery during the same quarter, are not more than thirty percent (30%) greater than the quantities provided in the applicable 3 Month Forecast. For any Releases calling for quantities more than thirty percent (30%) greater than the quantities provided in such 3 Month Forecast, Entegris shall use commercially reasonable efforts to deliver such quantities within sixty (60) days following the date Entegris receives such release or as soon as practicable thereafter.

5.4.2 Within ten (10) days after receipt of each One Year Forecast, Entegris will provide a non-binding, good faith projection of its UPE Membrane manufacturing volume (broken down between philic and phobic Membranes), by calendar quarter, for the upcoming four calendar quarters. This information will be used by Millipore for budgeting of resources and revenue, and for the determination of budgeted Machine Hourly Rates for purposes of Section 7.1.2.

5.4.3 Millipore's requirements for membranes for an upcoming quarter shall be submitted to Entegris in the form of purchase orders before the start of that quarter. Millipore shall be entitled to cancel orders without penalty or other change if the written cancellation notice is received by Entegris prior to the ordered membrane lot being extruded. Millipore shall be entitled to increase volume of membrane ordered during the quarter by issuing a supplemental purchase order and Entegris agrees to make reasonable efforts to accommodate the requested additional volume.

5.5. ***Prices; Delivery and Payment Terms.*** Membrane prices shall be as set forth in Section 7.5 hereof. Payment terms for the sale of Membranes hereunder shall be as set forth in Section 7.6 hereof. Delivery terms for all Membranes will be FOB 80 Ashby Road, Bedford, MA.

5.6 ***Continuing Supply Discussions***. The parties agree to commence good faith discussions in the first calendar half of 2011 regarding the possibility of continuing the supply of some Membranes from Entegris to Millipore beyond the Term of this Agreement on terms and conditions mutually acceptable to both parties, if any.

5.7 ***Safety Stock***.

5.7.1 Each party acknowledges that the generation of a sufficient safety stock of UPE Membrane inventory meeting specifications and produced using a qualified process is appropriate. Accordingly, during the Facility Term Entegris will use its commercially reasonable efforts to produce additional Flat Sheet UPE Membrane for Millipore at the Premises beyond 200,000 feet per quarter.

5.7.2 Entegris will not commence the Move, including the reduction or cessation of production or the movement of any Entegris Equipment, until the parties have created an inventory of safety stock of Flat Sheet UPE Membrane inventory meeting specifications and produced using the qualified process at the Premises (the "Safety Stock") of at least 400,000 feet. Until commencement of the Move, Entegris will make all commercially reasonable efforts to maintain the Safety Stock at such amount.

5.7.3 The level of existing Safety Stock as of the Effective Date is 144,235 feet. The parties agree that production in any calendar quarter in excess of, or below, 200,000 feet shall increment or decrement, respectively, the amount of Safety Stock. In addition, material returns for verified quality issues related to the portions of the process controlled by Entegris will reduce the amount of Safety Stock, foot for foot. The parties will review the amount of Safety Stock on a monthly basis and will mutually determine when the Safety Stock has reached 400,000 feet. The parties acknowledge that the Safety Stock described in this section is exclusively for the benefit of Millipore's supply needs. Millipore will provide the necessary storage space for the Safety Stock, which storage space shall be outside the then current Premises.

5.7.4 Although fully treated, finished Membrane is preferable, if the parties mutually agree that it is a necessity in order to facilitate the Move, up to 60,000 feet (fifteen percent (15%)) of the Safety Stock may be comprised of gel rolls, which are composed of Flat Sheet UPE Membrane that has not yet been processed through the Annealing Line. Any such gel rolls shall be processed at the Premises when such rolls are actually processed.

6. **TERM AND TERMINATION**

6.1. The effective period of this Agreement (the "Term" or "Term of this Agreement") shall begin on the Effective Date and continue thereafter until December 31, 2012 or until earlier termination in accordance with Section 6.2. Any Release issued by a Supplied Party before the effective date of termination and in accordance with Section 5.4 hereof shall be fulfilled by the Supplying Party.

6.2. Either party may terminate this Agreement prior to December 31, 2012 without prejudice to any rights or liabilities accruing up to the date of termination:

(i) in the event of a material breach by the other party of any of the terms and conditions of this Agreement, by giving the other party written notice of such breach, provided that such breach shall not have been cured within one hundred twenty (120) days following such notice; or,

(ii) immediately, by written notice thereof, if any of the following events or an event analogous thereto occurs:

a. an adjudication has been made that the other party is bankrupt or insolvent;

b. the other party has filed bankruptcy proceedings or has had such proceedings filed against it, except as part of a bona fide scheme for reorganization;

c. a receiver has been appointed for all or substantially all of the property of the other party;

d. the other party has assigned or attempted to assign this Agreement for the benefit of its creditors; or

e. the other party has begun any proceeding for the liquidation or winding up of its business affairs; or,

(iii) at any time for convenience of the terminating party upon twenty-four (24) months prior written notice to the other party.

6.3. Termination under this Section 6 shall be in addition to and not a substitute for other rights or causes of action of the terminating party.

6.4. Termination of this Agreement shall not in any way operate so as to impair or destroy any of the rights or remedies of either party, either at law or in equity, nor shall it relieve the parties of their obligations pursuant to Sections 1, 3.1, 4.5, 4.6, 4.7, 6, 8, 9, and 13 through 16 hereof, each of which shall survive the termination or expiration of this Agreement.

7. PRICES AND PAYMENTS

7.1. ***Machine Hourly Rates.*** The hourly rates ("Machine Hourly Rates") for use by Entegris of Millipore's VMF4 Line, Film 1 Annealing Line and Mix Room equipment (the "Machines"), and the invoicing thereof, shall be as set forth in this Section 7.1. Machine usage (including production and research and development usage) shall be calculated in accordance with the formula set forth in **Annex 2**.

7.1.1. *Machine Hourly Rates*. Commencing on the Effective Date, the Machine Hourly Rates set forth in Annex 1, subject to the annual adjustments as set forth below in this Section, shall be applicable from the Effective Date through the end of the period of the Term of this Agreement. The Machine Hourly Rates shall be adjusted annually as of January 1 of each year, beginning in calendar year 2010, to reflect (i) the then most recent August-to-following-August percentage changes, up or down, in the Producer Price Index for the industry group Pharmaceutical Preparation Manufacturing (series identification number PCU325412325412), (ii) any demonstrated increases in Millipore's costs associated directly with use of the Machines hereunder and which costs are extraordinary, not presently anticipated and not reflected in the Producer Price Index used pursuant to clause (i) above, and (iii) changes to depreciation charges as a result of capital improvements to the Machines for the production of Membranes, as set forth in Section 7.4.2; provided, however, that commencing on January 1, 2009 the Machine Hourly Rates for Millipore's VMF4 Line will not be subject to such annual changes and will remain at $313.38 per hour for the Term of this Agreement. Machine Hourly Rates to Entegris are independent of Millipore production volumes on the Machines.

7.1.2. *Invoicing for Machine Hourly Rates.* Millipore shall be entitled to invoice Entegris monthly for Machine usage following the end of each month. The Machine Hourly Rates used for the first two months of each calendar quarter shall be the average Machine Hourly Rates that would apply for the budgeted use of each Machine for such quarter, as calculated by Millipore based on the then most recent projections provided by Entegris pursuant to Section 5.4.2 hereof. The invoice for the third month of each calendar quarter shall be adjusted to effect a "true up" to actual Machine usage by invoicing for the net difference between the Machine Hourly Rate applicable to the actual hourly usage of the Machine in question for the entire quarter multiplied times the actual hours of usage of such Machine for the quarter less the amounts invoiced for usage of such Machine for the first two months of the quarter. This "true up" is so that Entegris effectively pays for all of a quarter's hours at the Machine Hourly Rates appropriate for those total hours.

7.2. ***Occupancy Rates.*** Commencing on the Effective Date, rates for occupancy and use of the Premises shall be as set forth in Exhibit B.

7.3. ***Support Rates.*** Commencing on the Effective Date, rates for extraordinary Millipore supervisory, operational assistance and technical support (as described in Section 3.2 hereof) that are currently in use by the parties during 2005 shall be applicable from the Effective Date through December 31, 2008. Commencing on January 1, 2009, rates for extraordinary Millipore supervisory, operational assistance and technical support (as described in Section 3.2 hereof) shall be as shown in Annex 1. These rates will be adjusted annually as of January 1 of each year, beginning in calendar year 2010, to reflect (i) the then most recent August-to-following-August percentage changes, up or down, in the Producer Price Index for the industry group Pharmaceutical Preparation Manufacturing (series identification number PCU325412325412) and (ii) any demonstrated increases in Millipore's costs associated directly with providing such support hereunder and which costs are extraordinary, not presently anticipated and not reflected in the Producer Price Index used pursuant to clause (i) above.

7.4. ***Impact of Capital Investment on Prices.***

7.4.1. Entegris shall be responsible for funding required capital improvements to the Entegris Equipment for production of hydrophobic Membranes. Millipore shall be responsible for funding required capital improvements to the Millipore Equipment for production of hydrophilic Membranes. To the extent that capital improvements are required for the Millipore Equipment used in the production of hydrophobic Membranes, responsibility for funding that capital improvement shall be mutually agreed upon in accordance with Section I.1.7 of the Supplement. If one party funds the purchase of additional equipment for use in manufacture of UPE Membranes at the Premises, that equipment shall be owned by the funding party.

7.4.2. Changes to depreciation charges as a result of capital improvements to the Equipment for the production of Membranes will be reflected in the appropriate work center rates and would be part of the rate adjustment process set forth in Sections 7.1.2 and 7.3. Millipore and Entegris each agree to inform the other of capital purchases that may eventually affect proposed rate/price changes hereunder no later than the time that purchase orders for such capital purchases are placed.

7.4.3. Millipore shall have approval authority with respect to any Entegris proposed modifications to VMF 4 equipment for UPE Membrane processing. Millipore agrees that proposed modifications to the VMF4 equipment for non-Entegris UPE Membrane processing that could influence the processing of UPE Membranes on the VMF 4 equipment shall be reviewed with Entegris and shall be subject to mutual agreement.

7.4.4. Millipore shall have approval authority for any Entegris proposed modifications to Film 1 manufacturing process for UPE Membranes. Financial impact of those modifications would be mutually agreed upon prior to proceeding.

7.4.5. In the event of a process change to either the Film 1 or VMF4 lines, Millipore shall be responsible for change control management for any impact on Millipore products. Likewise, Entegris would be responsible for change control management for any impact on Entegris products.

7.5. ***Membrane Prices***.

7.5.1. Intentionally Omitted.

7.5.2. Commencing on the Effective Date through December 31, 2009, until adjusted pursuant to Section 7.5.3, prices for Flat Sheet UPE Membranes to Millipore produced at the Premises, together with up to eight (8) rolls produced at the New Entegris Facility that are used to ascertain basic feasibility, shall be at Entegris' Manufacturing fifteen percent (15%). For Flat Sheet UPE Membranes produced at the New Entegris Facility (other than the rolls for feasibility evaluation as described and priced above), prices shall as set forth on Annex 3 for the Term of this Agreement. The parties acknowledge that all Flat Sheet UPE Membranes will be produced at the New Entegris Facility after December 31, 2010.

7.5.3. On or before November 15, 2009, Entegris shall notify Millipore as to the adjusted Manufacturing Cost to be in effect for the following calendar year for the Membranes to be supplied by Entegris that will be produced at the Premises and shall make available an "open-book" review of such Manufacturing Cost. Membrane Prices hereunder will be adjusted as of January 1, 2010 to reflect such adjusted Manufacturing Cost. Without limiting the factors involved in determining Manufacturing Cost, the Manufacturing Cost of UPE Membranes shall take into account the budgeted Machine Hourly Rates based on projected annual UPE Membrane manufacturing volume.

7.6. ***Payment of Invoices***. All amounts payable by either party to the other pursuant to this Agreement, except for amounts payable as Rent, shall be payable within forty-five (45) days following the later of (i) receipt of ordered Membranes, performance of services or Machine usage, and (ii) receipt of invoice. All payments shall be made in U.S. Dollars. Any late payments shall be subject to interest at a rate of twelve percent (12%) per annum.

8. <u>**NON-COMPETITION**</u>

Except as otherwise provided in Article 5 hereof or elsewhere in this Agreement*:*

8.1. Millipore agrees that neither it nor any of its Affiliated Companies will (i) sell outside of the Millipore Core Business any UPE Membranes or UPE Products, or (ii) sell any UPE Membranes or UPE Products to any distributor, OEM manufacturer or other third party that has rights to, or that Millipore or any such Affiliated Company has reason to believe will, resell such UPE Membranes or UPE Products outside of the Millipore Core Business or sell other products which include UPE Membranes or UPE Products as materials or components outside of the Millipore Core Business.

8.2. Entegris agrees that neither it nor any of its Affiliated Companies will (i) sell into the Millipore Core Business any Other UPE Membranes or Other UPE Products, or (ii) sell any Other UPE Membranes or Other UPE Products to any distributor, OEM manufacturer or other third party that has rights to, or that Entegris or any such Affiliated Company has reason to believe will, resell such Other UPE Membranes or Other UPE Products into the Millipore Core Business or sell other products which include Other UPE Membranes or Other UPE Products as materials or components into the Millipore Core Business.

8.3. Intentionally Omitted.

8.4. Intentionally Omitted.

8.5. Entegris agrees that neither it nor any of its Affiliated Companies will (i) sell outside of the Entegris Core Business any Treated Entegris Membranes or Treated Entegris Products, or (ii) sell any Treated Entegris Membranes or Treated Entegris Products to any distributor, OEM manufacturer or other third party that has rights to, or that Entegris or any such Affiliated Company has reason to believe will, resell such Treated Entegris Membranes or Treated Entegris Products outside of the Entegris Core Business or sell other products which include Treated Entegris Membranes or Treated Entegris Products as materials or components outside of the Entegris Core Business.

8.6. In the event that either party discovers any distribution arrangements pre-existing the Original Contract Date that would conflict with the provisions of this Agreement, the parties agree that any such pre-existing arrangements shall not constitute a breach hereunder, and they further agree: (i) to use reasonable commercial efforts to cause any such terms of distribution agreements that are inconsistent with the provisions contained herein to be amended so as to be consistent with these provisions, (ii) not to amend any distribution agreements following the date of this Agreement so as to be inconsistent with such provisions, and (iii) not to renew or enter into any distribution agreements or other agreements containing terms inconsistent with the provisions contained herein following the date of this Agreement.

8.7. It is acknowledged and accepted that either party or its Affiliated Companies may from time to time hereafter unintentionally make sales that would be prohibited in accordance with Sections 8.1 through 8.5 ("Sales Outside Field"). Accordingly, notwithstanding Sections 8.1 through 8.5, each party agrees not to actively market or attempt to make Sales Outside Field, *provided* that for any Sales Outside Field that are nevertheless made by and known to a party, such party shall, within forty-five (45) days following the end of each calendar year in which such Sales Outside Field were made, provide an accounting of its Gross Margins on such Sales Outside Field during such calendar year (such accounting to include the total amount of such Sales Outside Field, the total Gross Margins on such Sales Outside Field, and detail regarding the customers to which such Sales Outside Field were made) and payment of the amount of such Gross Margins to the other party. Other than such accountings, neither party shall be liable for any commission, payment, remittance, accrual or obligation or incur any other liability to the other party with respect to any such Sales Outside Field. For purposes of this Section, "Gross Margins" on a party's Sales Outside Field shall mean the sale price, net of discounts and other sales deductions, of a Membrane or product sold Outside Field, less such party's fully burdened manufacturing cost of such Membrane or product (which for Membranes purchased from the other party hereunder shall mean the price paid to the other party for such Membranes).

9. WARRANTIES AND INDEMNIFICATION

9.1. Each Supplying Party warrants to the corresponding Supplied Party that:

(i) All Membranes supplied to the Supplied Party hereunder shall conform to the specifications for such Membranes as in effect as of the date of this Agreement and as provided to the Supplied Party, as such specifications may be amended as agreed by the parties;

(ii) All Membranes supplied hereunder shall be free of defects in materials and workmanship; and

(iii) It will abide by all applicable laws and regulations in manufacturing and supplying Membranes pursuant to this Agreement.

9.2. In the event of a breach of the foregoing warranties, the Supplying Party's sole obligation to the Supplied Party shall be to repair, replace or refund, at the Supplying Party's option, any non-conforming Membranes.

9.3. **THE SUPPLYING PARTY MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. FURTHERMORE, THE SUPPLYING PARTY SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR ANY OTHER INDIRECT DAMAGES RESULTING FROM ECONOMIC LOSS OR PROPERTY DAMAGE SUSTAINED BY THE SUPPLIED PARTY FROM THE USE OF THE SUPPLIED MEMBRANES.**

9.4. Each Supplying Party agrees to indemnify and hold the corresponding Supplied Party harmless from and against any claim or legal action by a third party against such Supplied Party (including reasonable attorneys' fees associated therewith) based on damages incurred as a result of property damages, personal injury or death, to the proportionate extent arising from a breach of any of the above warranties of the Supplying Party or from the Supplying Party's negligent action or omission.

9.5. Without limiting any other rights or remedies that a Supplied Party may have, if such Supplied Party determines that delivered Membranes do not conform to the agreed specifications for such Membranes, then such Supplied Party may reject or withdraw its acceptance thereof and shall notify the Supplying Party in writing of such nonconformity or error within thirty (30) days from receipt of such Membranes by the Supplied Party. The Supplied Party may subject any Membrane to internal testing for purposes of determining conformity to specifications. The Supplying Party shall have fifteen (15) days after receipt of written notice of nonconformity or error to replace nonconforming Membranes at the expense of the Supplying Party. If so directed by the Supplying Party, the Supplied Party shall return nonconforming Membranes to the Supplying Party's manufacturing facilities, at the Supplying Party's expense and using such carrier and such delivery dates and terms as the Supplying Party shall reasonably specify.

9.6. The parties agree to have their representatives meet at least once every three (3) months (unless otherwise agreed) to review compliance with the manufacturing, specifications, product quality, forecasting and delivery terms set forth in this Agreement, and to agree on any necessary corrective actions or modifications to the Supplement as then in effect.

10. MEMBRANE MODIFICATIONS; NEW MEMBRANES.

10.1. Each Supplying Party agrees that it will not substantially change the Membranes that it will supply hereunder or their formulation, manufacturing or testing processes, process equipment, other aspects of form, fit or function, or production location, unless the Supplied Party approves such change in writing, which approval may require formal validation and qualification and possibly customer notification. The implementation of any such accepted changes shall be subject to the parties' agreement on any change in price or other terms of supply as may be necessitated or requested by a party as a result of such change.

10.2. If any new or improved UPE Membranes result from research and development work that may be conducted by either Millipore or Entegris during the Term of this Agreement, or are requested by Millipore to be added to the supply provisions hereof, and are agreed to by Entegris, and are technically feasible for Entegris to manufacture, it is intended that such UPE Membranes be added to this Agreement both in terms of Entegris' supply to Millipore and Entegris' manufacture of such UPE Membranes, and they shall be so added to this Agreement upon agreement by the parties as to specifications and pricing, which pricing shall be consistent in methodology with the pricing hereunder.

11. ACCESS TO FACILITIES

At any time during the Term, upon reasonable advance notice by a Supplied Party, such Supplied Party's authorized representatives and customers (subject to appropriate confidentiality obligations) shall be provided access to the facilities of the Supplying Party to audit or verify conformity with applicable laws and regulations and mutually agreed to quality standards. During the Facility Term of this Agreement, Millipore's authorized representatives shall be provided access to the Premises for the purpose of auditing or troubleshooting (to be coordinated with Entegris) of technical problems with UPE Membranes or their manufacture. Also, Millipore and Entegris customers (subject to appropriate confidentiality obligations and on reasonable advance notice, and for the purposes indicated above) shall be provided reasonable access, respectively, to the Premises (during the Facility Term) and to the New Entegris Facility and to the areas of Millipore's 80 Ashby Road facility where the Millipore Equipment is located and used (limited to the VMF4 Line after the Facility Term) up to the Term of this Agreement.

12. INSURANCE RELATED TO MEMBRANES

Each Supplying Party agrees to procure and maintain, at all times during the Term, product liability insurance with respect to the Membranes supplied by it (Broad Form Vendor's Endorsement) and contractual liability coverage, with the minimum limits of $5,000,000 (Five Million Dollars). Each Supplying Party shall, upon request by the Supplied Party, furnish to the Supplied Party a certificate of insurance evidencing the foregoing coverage and limits. The insurance provider shall not be changed without providing the Supplied Party with ten (10) days' prior written notice.

13. CONFIDENTIALITY

13.1. ***Confidential Information***. For the purpose of this Agreement the term "Confidential Information" means Information which is not otherwise in the public domain and of which the owner actively undertakes to restrict or control the disclosure to persons or entities other than Millipore or Entegris or their Subsidiaries in a manner reasonably intended to maintain its confidentiality, and which: **(i)** the party owning or disclosing Confidential Information ("Disclosing Party") disclosed to the non-owning party or recipient of the Confidential Information ("Receiving Party") or the Receiving Party had access to on or before the Original Contract Date; **(ii)** is contained in or referred to by this Agreement or any exhibit or annex hereto and is known to or in the possession of the Receiving Party as of the Effective Date; or **(iii)** is disclosed to the Receiving Party pursuant to this Agreement during the Term (the "Disclosure Period"). Confidential Information may include information relating to, by way of example, research, products, services, customers, markets, software, developments, inventions, manufacturing processes, designs, drawings, engineering, marketing or finances, and may be in writing, disclosed orally or learned by inspection of computer programming code, equipment or facilities. Confidential Information of third parties that is known to, in the possession of or acquired by a Receiving Party pursuant to a relationship with the Disclosing Party shall be deemed to be the Disclosing Party's Confidential Information for purposes of this Section 13.

13.1.1. ***Highly Confidential Information*** means Confidential Information that is technical know-how and trade secrets relating to: **(i)** Information relating to manufacturing processes or procedures with respect to devices or other products that are commercially released or for which substantial steps have been taken towards commercialization as of the Effective Date; **(ii)** Information generated by research and development activities; **(iii)** chemical and other scientific formulae used for the manufacture or treatment of membranes or other separations media or of devices or other products that are commercially released or for which substantial steps have been taken towards commercialization as of the Effective Date; or **(iv)** any other Information which Millipore and Entegris agree is Highly Confidential hereunder.

13.1.2. ***Exclusions from Confidential Information***. Notwithstanding the foregoing provisions of this Section 13.1, Confidential Information shall exclude information that: **(i)** was in the Receiving Party's possession before receipt from the Disclosing Party and obtained from a source other than the Disclosing Party and other than through the prior relationship of the Disclosing Party and the Receiving Party before the Original Contract Date; **(ii)** is or becomes a matter of public knowledge through no fault of the Receiving Party; **(iii)** is rightfully received by the Receiving Party from a third party without a duty of confidentiality; **(iv)** is disclosed by the Disclosing Party to a third party without a duty of confidentiality on such third party; **(v)** is independently developed by the Receiving Party; or **(vi)** is publicly disclosed by the Receiving Party with the Disclosing Party's prior written approval.

13.2. ***Confidentiality And Non-Use Obligations***. During the Confidentiality Period (as defined in Section 13.3 below), the Receiving Party shall **(i)** protect the Confidential Information of the Disclosing Party by using the same degree of care, but no less than a reasonable degree of care, to prevent the unauthorized use, dissemination, or publication of the Confidential Information as Receiving Party uses to protect its own confidential information of a like nature, **(ii)** not use such Confidential Information in violation of any use restriction herein, and **(iii)** not disclose such Confidential Information to any third party, except as expressly permitted under this Agreement or in any other agreements entered into between the parties in writing, without prior written consent of the Disclosing Party.

13.3. ***Duration of Confidentiality Obligations. The confidentiality obligations provided for in this Section 13 shall continue in effect for the following periods (the "Confidentiality Period"):*** (i) with respect to Confidential Information that is not Highly Confidential Information, for a period of five (5) years following either (A) the Effective Date with respect to Confidential Information of the Disclosing Party that is known to or in the possession of the Receiving Party as of the Effective Date or (B) the date of disclosure with respect to Confidential Information that was or will be disclosed by the Disclosing Party to the Receiving Party after the Effective Date but before the expiration of the Disclosure Period (as defined in Subsection 13.1 above); and (ii) with respect to Highly Confidential Information, in perpetuity. The obligations set forth in this Section 13 shall survive any termination of this Agreement.

13.4. ***Compelled Disclosure***. If the Receiving Party or any of its respective Subsidiaries believes that it (i) is legally obligated to disclose, or (ii) will be compelled by a court or other authority of competent jurisdiction to disclose, Confidential Information of the Disclosing Party, it shall give the Disclosing Party prompt written notice so that the Disclosing Party may take steps to oppose such disclosure and cooperate with the Disclosing Party in its attempts to oppose such disclosure. If the Receiving Party complies with the preceding sentence, it shall not be prohibited from complying with such requirement to disclose, but shall take all reasonable steps to make such disclosure subject to a suitable protective order or otherwise to prevent unrestricted or public disclosure.

13.5. ***No Restriction on Disclosing Party***. Nothing in this Section 13 shall restrict the Disclosing Party from using, disclosing, or disseminating its own Confidential Information in any way.

13.6. ***Disclaimer of Warranties as to Confidential Information***. EACH PARTY ACKNOWLEDGES AND AGREES THAT ALL CONFIDENTIAL INFORMATION IS PROVIDED ON AN "AS IS, WHERE IS" BASIS AND THAT NEITHER PARTY NOR ANY OF ITS SUBSIDIARIES HAS MADE OR WILL MAKE ANY WARRANTY WHATSOEVER, EXPRESS, IMPLIED OR

STATUTORY, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, ENFORCEABILITY OR NON-INFRINGEMENT.

14. NO OTHER RIGHTS

Neither party shall have any rights hereunder to any patents or other intellectual property of the other party, except as specifically set forth herein. Without limiting the generality of the foregoing, neither party shall have any rights to use any trademarks of the other party for any purpose in connection with the Membranes to be manufactured or supplied hereunder.

15. DISPUTE RESOLUTION

15.1. ***Discussion of Parties***. In the event of a dispute between the parties arising out of or related to this Agreement (the "Dispute"), a party seeking to resolve the Dispute shall give written notice to the other party, describing briefly the nature of the Dispute and its claim and identifying an individual with authority to settle the Dispute on its behalf. The party receiving such notice shall have five (5) business days within which to designate, in a written notice given to the initiating party, an individual with authority to settle the Dispute on its behalf. Neither of such authorized individuals shall have had direct substantive involvement in the matters involved in the Dispute. The authorized individuals shall make such investigation as they deem appropriate and thereafter promptly (but in no event later than thirty (30) days from the date of the initiating party's notice) shall commence discussions concerning resolution of the Dispute.

15.2. If the Dispute has not been resolved within thirty (30) days from the commencement of discussions, it shall be submitted to final and binding arbitration under the then current Commercial Arbitration Rules of the American Arbitration Association ("AAA"), by one (1) arbitrator in Boston, Massachusetts. Such arbitrator shall be selected by the mutual agreement of the parties or, failing such agreement, shall be selected according to the aforesaid AAA rules. The arbitrator will be instructed to prepare and deliver a written, reasoned opinion stating its decision within thirty (30) days of the completion of the arbitration. The prevailing party in such arbitration shall be entitled to expenses, including costs and reasonable attorneys' and other professional fees, incurred in connection with the arbitration. The decision of the arbitrator shall be final and non-appealable and may be enforced in any court of competent jurisdiction.

15.3. ***Continuity of Service and Performance***. Unless otherwise agreed in writing, the parties will continue to provide service and honor all other commitments under this Agreement during the course of dispute resolution pursuant to the provisions of this Section 15 with respect to all matters not subject to such dispute, controversy or claim.

16. GENERAL PROVISIONS

16.1. ***Notices***. Any notice or other communication required or permitted to be given by either party pursuant to the terms of this Agreement shall be in writing and shall be deemed given if and when delivered by hand or sent by certified mail, return receipt requested, overnight courier, confirmed telecopy, or confirmed electronic mail transmission, addressed as follows:

If to Millipore:	Millipore Corporation 290 Concord Road Billerica, MA 01821 Attn: Vice President, Global Supply Chain Fax: (978) 715-1385
with a copy to:	Millipore Corporation 290 Concord Road Billerica, MA 01821 Attn: General Counsel Fax: (978) 715-1382
If to Entegris:	Entegris, Inc. 129 Concord Road Billerica, MA 01821 Attn: Ex. VP & COO Fax: (978) 436-6739
with a copy to:	Entegris, Inc. 129 Concord Road Billerica, MA 01821 Attn: General Counsel Fax: (978) 436-6739

or to such electronic mail address as may be specified by an addressee party to the other party by one of the other means provided above, or to such other address, telecopy number or electronic mail address as may be specified by an addressee party to the other by one of the means provided above.

16.2. ***Force Majeure***. The obligations of a party under this Agreement will be suspended to the extent that it is wholly or partially precluded from complying with its obligations under this Agreement by force majeure. Force majeure includes, but is not restricted to, fire, storm, flood, earthquake, explosion, accident, act of the public enemy, war, rebellion, insurrection, sabotage, epidemic, quarantine restriction, labor dispute, labor shortage, transportation embargo or failure or delay in transportation, act of God, act (including laws, regulations, disapprovals or failure to approve) of any government agency, whether national, municipal, or otherwise. During the existence of any such force majeure condition, the affected party shall nevertheless use its best efforts to remove the cause thereof.

16.3. ***Entire Agreement; Old Agreement.*** This Agreement, including Exhibits A, B, and C and Annexes 1 and 2, attached hereto, is the entire agreement between the parties with respect to the subject matter hereof, and supersedes any prior negotiations and agreements or understandings and any contemporaneous oral agreements or understandings with respect to the subject matter hereof. Without limiting the generality of the foregoing, the Old Agreement shall be deemed replaced in its entirety by this Agreement as of the Effective Date, provided that the Old Agreement shall continue to apply to all activities or events that occurred prior to the Effective Date.

16.4. ***Governing Law***. This Agreement shall be construed in accordance with and all Disputes hereunder shall be governed by the laws of the Commonwealth of Massachusetts as applied to transactions taking place wholly within Massachusetts between Massachusetts residents. The Superior Court of Middlesex County and/or the United States District Court for the District of Massachusetts shall have jurisdiction and venue over all Disputes between the parties that are permitted to be brought in a court of law pursuant to Section 15 above.

16.5. ***Counterparts***. This Agreement and the Exhibits and Annexes hereto and the other documents referred to herein, may be executed in counterparts, each of which shall be deemed to be an original but all of which shall constitute one and the same agreement.

16.6. ***Binding Effect; Assignment***. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective legal representatives and successors, and nothing in this Agreement, express or implied, is intended to confer upon any other person any rights or remedies of any nature whatsoever under or by reason of this Agreement. Neither party may assign this Agreement or any rights or obligations hereunder, without the prior written consent of the other party, and any such assignment shall be void. Notwithstanding the foregoing, either party may assign this Agreement and all (but not less than all) of its rights and obligations hereunder to a purchaser or transferee of, or other successor to, substantially all of its business.

16.7. ***Severability***. If any term or other provision of this Agreement or the Exhibits or Annexes attached hereto is determined by a court, administrative agency or arbitrator to be invalid, illegal or incapable of being enforced by any rule of law or public policy, all other conditions and provisions of this Agreement shall nevertheless remain in full force and effect so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to either party. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner to the end that transactions contemplated hereby are fulfilled to the fullest extent possible.

16.8. ***Failure or Indulgence Not Waiver; Remedies Cumulative***. No failure or delay on the part of either party hereto in the exercise of any right hereunder shall impair such right or be construed to be a waiver of, or acquiescence in, any breach of any representation, warranty or agreement herein, nor shall any single or partial exercise of any such right preclude other or further exercise thereof or of any other right. All rights and remedies existing under this Agreement or the Exhibits and Annexes attached hereto are cumulative to, and not exclusive of, any rights or remedies otherwise available.

16.9. ***Amendment***. No change or amendment will be made to this Agreement or the Exhibits or Annexes attached hereto except by an instrument in writing signed on behalf of each of the parties to such agreement.

16.10. ***Authority***. Each of the parties hereto represents to the other that **(a)** it has the corporate or other requisite power and authority to execute, deliver and perform this Agreement, **(b)** the execution, delivery and performance of this Agreement by it have been duly authorized by all necessary corporate or other actions, **(c)** it has duly and validly executed and delivered this Agreement, and **(d)** this Agreement is a legal, valid and binding obligation, enforceable against it in accordance with its terms subject to applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights generally and general equity principles.

16.11. ***Interpretation***. The headings contained in this Agreement or in any Exhibit hereto are for reference purposes only and shall not be conclusive as to the meaning or interpretation of this Agreement. When a reference is made in this Agreement to a Section, Exhibit or Annex, such reference shall be to a Section, Exhibit or Annex of this Agreement unless otherwise indicated.

16.12. ***Exhibits and Annexes***. This Agreement includes the following Exhibits and Annexes, each of which constitutes an integral component part of this Agreement:

Exhibit A.	Membranes Covered by Agreement
Exhibit B	Lease Terms including Attachment A
Exhibit C	The Supplement
Annex 1	Machine Hourly Rates and Support Rates
Annex 2	Formula for Calculating Machine Usage Hours
Annex 3	Membrane Prices from New Entegris Facility

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives effective as of the Effective Date.

MILLIPORE CORPORATION	**ENTEGRIS, INC.**
By: /s/ Peter C. Kershaw	By: /s/ Bertrand Loy
Name: Peter C. Kershaw	Name: Bertrand Loy
Title: Corporate Vice President of Manufacturing	Title: Executive Vice President and Chief Operating Officer

Exhibit 10.2

**AMENDED AND RESTATED
SUPPLEMENTAL EXECUTIVE RETIREMENT PLAN
FOR KEY SALARIED EMPLOYEES OF
ENTEGRIS, INC.**

INTRODUCTION

This document amends, restates and continues the Supplemental Executive Retirement Plan for Key Salaried Employees of Entegris, Inc., which was originally established effective April 1, 2001 by Mykrolis Corporation, a predecessor to the Company and which was assumed by the Board on August 10, 2005.

The purpose of the Plan is to provide certain key salaried employees of the Employer with the opportunity to defer a portion of their compensation on an unfunded, nonqualified basis as hereinafter provided and to provide benefits to such employees that are supplemental to the benefits provided under the Savings Plan.

The amendment and restatement of the Plan set forth herein is intended *inter alia* to conform the Plan to the requirements of Section 409A, including the transition rules and exemptive relief provisions thereunder, and shall be construed consistent with that intent. Notwithstanding the foregoing, neither the Company nor any of its officers or directors, nor any other person charged with administrative responsibilities under the Plan, shall be liable to any employee or former employee of the Company, or to any spouse or other beneficiary of any such employee or former employee, by reason of the failure of any benefit hereunder to comply with the requirements of Section 409A.

For purposes of compliance with Section 409A, the Plan consists of two parts: (i) amounts deferred on behalf of a Participant that were earned and vested on or after January 1, 2005, including all income, gains and losses credited or charged with respect thereto ("Section 409A deferrals") and (ii) amounts deferred on behalf of a Participant that were earned and vested on or before December 31, 2004 (including all income, gains and losses credited or charged with respect thereto) ("grandfathered deferrals"). With respect to Section 409A deferrals, the Plan is intended to comply with the requirements of Section 409A and shall be interpreted and administered in a manner consistent with such requirements. With respect to grandfathered deferrals, the Plan is intended to be grandfathered for purposes of Section 409A and therefore exempt from Section 409A.

The terms of this amended and restated Supplemental Plan are effective as of January 1, 2009 except as indicated otherwise herein and except with respect to grandfathered deferrals, which will continue to be governed by the terms of the Plan as in effect on December 31, 2004. There has been no material modification of the grandfathered deferrals within the meaning of Section 409A after October 3, 2004, although the Company reserves the right to amend grandfathered deferrals in the future to the extent permitted by the terms of the Plan as in effect on December 31, 2004. A copy of the Plan as in effect on December 31, 2004 is attached hereto as Appendix A. The rights of a Participant in the Plan who separated from service of the Employer on or prior to December 31, 2008 shall be governed by the terms of the Plan, including operational terms, as in effect on the date of such separation from service and in accordance with the requirements of Section 409A, to the extent applicable.

SECTION 1 DEFINITIONS

The following terms when used in this Supplemental Plan with initial capital letters shall have the meanings assigned to them below. Except where the context otherwise requires, words imparting the singular number shall include the plural number and vice versa, words denoting any gender shall include all genders and words denoting persons shall include bodies corporate and vice versa:

1.1. **“Administrator”** means the Management Development & Compensation Committee of the Board; provided that such Committee, in its discretion, may delegate such of its duties and responsibilities under the Supplemental Plan as it determines to such employees of the Company or other persons as it determines, in which case the term “Administrator” shall include the person or persons to whom such duties and responsibilities were delegated, to the extent of such delegation.

1.2. **“Board”** means the Board of Directors of Entegris, Inc., as from time to time in office.

1.3. **“Code”** means the Internal Revenue Code of 1986, as amended from time to time. Reference to any section or subsection of the Code includes reference to any comparable or succeeding provisions of any legislation which amends, supplements or replaces such section or subsection.

1.4. **“Company”** means Entegris, Inc., a Delaware corporation.

1.5. **“Employer”** means the Company, together with any subsidiary or affiliated corporation that (i) together with the Company would be treated as a single “employer” for purposes of Treas. Regs. § 1.409A-1(h)(3) and (ii) the Board determines to add to this Supplemental Plan.

1.6. **“Participant”** means a key salaried employee of the Employer who (i) is determined by the Administrator to qualify as a “highly compensated or management” employee for purposes of Sections 201(2), 301(a)(3) and 401(a)(1) of ERISA and (ii) is designated by the Administrator to receive benefits under this Supplemental Plan.

1.7. **“Savings Plan”** means the Entegris, Inc. 401(k) Savings and Profit Sharing Plan, as it may be amended or restated from time to time.

1.8. **“Section 409A”** means Section 409A of the Code.

1.9. **“Specified Employee”** means a Participant, if (i) at the date of such Participant’s separation from service with the Employer within the meaning of Treas. Regs. § 1.409A-1(h); the Company (or any other corporation forming part of the Employer) is a corporation any stock of which is publicly traded on an established securities market or otherwise, and (ii) the Participant is or was a “key employee” (determined under Section 416(i)(1)(A)(i), (ii) or (iii) of the Code, applied in accordance with the regulations thereunder and disregarding Section 416(i)(5) of the Code) at any time during (A) if the date of separation from service is April 1 through December 31, the preceding calendar year, or (B) if the date of separation from service is January 1 through March 31, the second calendar year preceding the calendar year in which the separation from service occurs (e.g., 2007 for a separation from service occurring January 1 through March 31 of 2009).

1.10. **"Supplemental Account"** means, for each Participant, the account under this Supplemental Plan to which contributions hereunder shall be credited in accordance with the provisions hereof. In the discretion of the Administrative Committee Supplemental Accounts may be subdivided for supplemental Participant contributions under Section 2.1, supplemental employer matching contributions under Section 2.2 and supplemental employer discretionary contributions under Section 2.3.

1.11. **"Supplemental Plan" or "Plan"** means this Supplemental Executive Retirement Plan for Key Salaried Employees of Entegris, Inc. as set forth herein and all amendments hereto.

SECTION 2 SUPPLEMENTAL SAVINGS PLAN BENEFITS

2.1. **Supplemental Participant Contributions.** A Participant may elect as provided in Section 3 to defer hereunder a portion or percentage of his gross compensation for any calendar year (prior to any deferrals under the Savings Plan, this Supplemental Plan, or any other nonqualified deferred compensation plan of the Company).

2.2. **Supplemental Employer Matching Contributions.** The Company shall credit to the Supplemental Account of each Participant who has elected to participate in pre-tax deferrals under the Savings Plan to the maximum extent permitted thereunder (taking into account any limitations imposed under the Savings Plan to comply with the qualification requirements of the Code) an amount equal to the excess of (a) over (b), where (a) is the amount of employer matching contributions which would have been made to the Savings Plan in the absence of the limitations of Sections 401(a)(17), 402(g) and/or 415 of the Code, the nondiscrimination requirements of Code Section 401(m) and any compensation deferrals under this Supplemental Plan or any other nonqualified deferred compensation plan of the Company, and (b) is the amount of employer matching contributions actually made to the Savings Plan.

2.3. **Supplemental Employer Discretionary Contributions.** The Company in its sole discretion may credit employer discretionary contributions to the Supplemental Account of each Participant in an amount and on an annual or such other basis as the Company may determine. The Company may, but is not obligated to, determine the amount of such employer discretionary contributions by considering the amount of employer discretionary contributions which would have been made to the Savings Plan on behalf of a Participant in the absence of the limitations of Sections 401(a)(17), 402(g) and/or 415 of the Code, the nondiscrimination requirements of Code Section 401(m) and any compensation deferrals under this Supplemental Plan or any other nonqualified deferred compensation plan of the Company, minus the amount of employer discretionary contributions actually made to the Savings Plan on behalf of such Participant.

2.4. Other Employer Credits. The Company in its sole discretion may credit a discretionary amount to the Supplemental Accounts of one or some Participants, in such an amount and at such time, and subject to such other terms and conditions as the Company may determine in its sole discretion.

SECTION 3 DEFERRAL ELECTION

3.1. In General. Each deferral under Section 2.1 shall be made by the Participant's delivery to the Administrator of a deferral election, on such form or forms as the Administrator may determine in its discretion, on or before the date specified by the Administrator, which date shall in all events (except as provided in 3.2 below) be, or fall prior to:

(i) in the case of any bonus that qualifies as "performance-based compensation" within the meaning of Treas. Regs. § 1.409A-1(e), the date that is six (6) months before the end of the performance period, but only if the Participant has been in continuous employment with the Employer since the later of the beginning of the performance period or the date the performance criteria are established and only if, on the date of the deferral election, the compensation has not become readily ascertainable (as determined in accordance with Treas. Regs. § 1.409A-2(a)(8)).

(ii) in every other case, the last day of the calendar year preceding the calendar year in which are to be performed the services to which the deferred compensation relates.

Each election made under this 3.1 shall become irrevocable in accordance with such rules as the Administrator may establish but not later than the election deadline specified in (i) or (ii) above, as applicable. Notwithstanding the above, the Administrator may permit a Participant to make a deferral election without meeting the requirements of this Section 3.1, pursuant to such procedures as the Administrator may determine in its discretion, to the extent permitted by transition guidance issued under Section 409A of the Code.

The Administrator may impose a minimum deferral amount for anyone electing to participate in this Supplemental Plan.

3.2. First Year of Participation. Notwithstanding Section 3.1 above, an individual who first becomes eligible to participate in this Supplemental Plan during the course of a calendar year may elect to defer a specified portion or percentage of his gross compensation in respect of services to be performed for the remainder of the year by delivering to the Administrator an irrevocable deferral election within thirty (30) days of first becoming eligible. An individual who already participates or is eligible to participate in (including an individual who has any entitlement, vested or unvested, to payments under) any other nonqualified deferred compensation plan that would be required to be aggregated with this Supplemental Plan for purposes of Treas. Regs. § 1.409A-1(c)(2) shall not be treated as eligible for the mid-year election rules of this Section 3.2 with respect to this Supplemental Plan, even if he had never previously been eligible to participate in this Supplemental Plan.

3.3. **<u>Form of Election</u>.** Each deferral election shall be made in writing on a form prescribed by the Administrator. To the extent consistent with Section 409A, the Administrator may condition the effectiveness of any election upon the delivery by the Participant of such other form or forms as the Administrator may prescribe.

SECTION 4 INVESTMENT DIRECTION

Participants shall be permitted, pursuant to such procedures as the Administrator may determine in its discretion, to designate what percentage of all amounts credited to the Participant's Supplemental Account in accordance with Section 2 above will be invested in the various investment options made available under the Savings Plan. Notwithstanding the above, the Administrator shall not be required to make the same investment options available under this Supplemental Plan as are available under the Savings Plan and may change such investment options at any time in its sole discretion.

SECTION 5 DISTRIBUTIONS AND LOANS

5.1. **<u>General</u>.** All payments of benefits to Participants and/or their designated beneficiaries under this Supplemental Plan shall be in cash in the form of a single lump sum paid within 90 days following the Participant's separation from the service of the Employer within the meaning of Treas. Regs. § 1.409A-1(h); provided, however, that in the case of a Participant who is a Specified Employee at the date he or she separates from the service of the Employer, payment shall be made on the date that is six (6) months following the date of such separation.

5.2. **<u>Distributions While Employed</u>.** No distributions may be made to a Participant under the terms of this Supplemental Plan while the Participant is an employee of the Employer.

5.3. **<u>Right of Offset</u>.** If, at the time of payment hereunder, the Administrative Committee determines that the Participant to whom or on whose behalf payment is being made, for any reason, is indebted to the Company or to any affiliate or subsidiary of the Company, the Administrative Committee shall be entitled, to the extent permitted under Section 409A of the Code, to offset such indebtedness, including any interest accruing thereon, against any payments otherwise due under the Supplemental Plan.

5.4. **<u>Withholding</u>.** The Company shall be entitled to withhold from payments due under the Supplemental Plan any and all taxes of any nature required by any government to be withheld from compensation paid to Participants.

5.5. **<u>Loans</u>.** No loans to Participants shall be permitted under the Supplemental Plan.

5.6. **<u>Designation of Beneficiary(ies)</u>.** Each Participant shall designate in writing, on such form and subject to such conditions as the Administrator shall prescribe (including, in the Administrator's discretion, spousal consent in the case of married Participants), a beneficiary or beneficiaries to receive any amounts remaining to be paid hereunder at the Participant's death; but if no such beneficiary designation is in effect at the time of the Participant's death, or if the Participant's beneficiary(ies) do(es) not survive the Participant, the Administrator shall cause any such remaining benefits to be paid to the executor or administrator of the Participant's estate.

SECTION 6 VESTING

A Participant shall be vested at all times in his or her supplemental participant contributions made under Section 2.1 and in supplemental Employer matching contributions made under Section 2.2. A Participant shall be vested in his or her supplemental Employer discretionary contributions to the same extent that the Participant is vested in his or her Employer Profit Sharing Account under the Savings Plan.

SECTION 7 MISCELLANEOUS

7.1. Amendment and Termination.

(1) The Board may at any time and from time to time, amend or terminate this Supplemental Plan, without the consent of any Participant or beneficiary, provided that no such amendment or termination shall, without the consent of the affected Participant, reduce the balance of any Participant's Supplemental Account below what it was immediately prior to the date of such termination or amendment.

(2) Any amendment or termination of the Supplemental Plan shall become effective as to a Participant or beneficiary on the first day of the month following the effective date of the amendment or termination.

(3) Upon termination of the Plan, payments hereunder shall be accelerated only to the extent permitted by Section 409A.

7.2. No Contract of Employment. The establishment of the Supplemental Plan or any modification thereof shall not give any Participant or other person the right to remain in the service of the Company or of any subsidiary or affiliate of the Company, and all Participants and other persons shall remain subject to discharge to the same extent as if the Supplemental Plan had never been adopted.

7.3. Source of Funds. All payments of benefits hereunder and all costs of administration of this Plan shall be paid in cash from the general funds of the Company, and no special or separate fund shall be required to be established or other segregation of assets required to be made to assure such payments. The Plan is intended to be a "pension plan" (within the meaning of Section 3(2) of ERISA) that is unfunded for ERISA and tax purposes and that qualifies for the exemptions described in ERISA Sections 201(2), 301(a)(3) and 401(a)(1).

Nothing in this Section 7.3 shall be construed as prohibiting the Company from establishing, in its discretion, a bookkeeping account or reserve to meet its obligations hereunder and/or a so-called "rabbi trust" or similar grantor trust, and the Company may fund such trust for the purpose of providing benefits hereunder, so long as the funding of such a trust or account does not jeopardize the unfunded status of the Plan under ERISA or effective tax deferral under the Code. Except as provided in the preceding sentence, nothing contained in the Plan and no action taken pursuant to the provisions of this Plan shall create or be construed to create a trust of any kind, or a fiduciary relationship between the Company or the Administrator and any employee or other person. To the extent that any person acquires a right to receive payments under the Plan, such right shall be no greater than the right of any unsecured general creditor of that person's employer or former employer.

7.4. **Tax Effects.** None of the Company, the Board, the Administrative Committee, and any firm, person, or corporation, represents or guarantees that any particular federal, state or local tax consequences will occur as a result of any Participant's participation in this Supplemental Plan, Each Participant shall consult with his or her own advisors regarding the tax consequences of participation in this Supplemental Plan.

7.5. **Administration of the Plan.** The Administrator shall have full power to interpret and administer this Supplemental Plan and determine the eligibility of any person for benefits hereunder and the amount of any such benefit, in its discretion. Without limiting the foregoing, the Administrator shall have full discretionary power and authority, not inconsistent with the express provisions of the Plan, to select those individuals who may participate in the Plan; to determine their gross compensation eligible for deferral under the Plan; to determine eligibility to commence receipt of benefits (including, without limitation, any determination as to the proper treatment of leaves of absence and other periods when an individual is not actively rendering service to the Employer); to adopt, alter, and repeal such rules, guidelines and procedures for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to prescribe the form of any election under the Plan; and otherwise to supervise the administration of the Plan. Any discretionary action by the Administrator under the Plan that affects the rights or benefits under the Plan of an individual who is a member of the Administrator (other than an action of general applicability to all Participants) must be approved by the Board. The Administrator shall establish claims procedures under the Plan consistent with the requirements of Section 503 of the Employee Retirement Income Security Act of 1974, as amended.

7.6. **Entire Agreement; Successors.** This Supplemental Plan, including any subsequently adopted amendments, shall constitute the entire agreement or contract between the Company and any Participant regarding the Supplemental Plan. There are no covenants, promises, agreements, conditions or understandings, either oral or written, between the Company and any Participant relating to the subject matter hereof, other than those set forth in this Supplemental Plan. This Supplemental Plan and any amendment shall be binding on the parties hereto and their respective heirs administrators, trustees, successors and assigns, and on all designated beneficiaries of the Participant.

7.7. **Severability.** If any provision of this Supplemental Plan shall be held or deemed to be invalid, inoperative or unenforceable as applied to any particular case in any jurisdiction or jurisdictions, because of its conflicting with any constitution or statute or rule of law or public policy or for any other reason, such circumstances shall not have the effect of rendering the provision or provisions in question invalid, inoperative or unenforceable in any other jurisdiction or of rendering any other provision or provisions herein contained invalid, inoperative or unenforceable, but this Supplemental Plan shall be reformed and construed in any such jurisdiction or case as if such invalid, inoperative or unenforceable provision had been contained herein and such provision reformed so that it would be valid, operative and enforceable to the maximum extent permitted in such jurisdiction or in such case.

IN WITNESS WHEREOF, the Company has caused this Amended and Restated Supplemental Plan to be executed by its duly authorized officer as of the 31st day of July, 2008.

ENTEGRIS, INC.

By: /s/ Peter W. Walcott
Title: Senior Vice President

Exhibit 10.3

____
Name of Employee ("Employee")

ENTEGRIS, INC.
2008 Equity Incentive Award Agreement

In consideration of services rendered by Employee to Entegris, Inc. (the "Company") the undersigned Employee: **(i)** acknowledges that Employee has received an equity incentive award (the "Award") under the Entegris, Inc. 1999 Long-Term Incentive and Stock Option Plan (the "Plan"), consisting of **[A]** performance shares of the Company subject to the terms set forth under Article I below and **[B]** a stock option grant subject to the terms and conditions specified in Article II below. The Employee further agrees with the Company that the Award is also subject to the terms and conditions set forth in Article III below:

ARTICLE I – AWARD OF PERFORMANCE SHARES

1.1. *Effective Date; Duration*. This Award shall take effect as of February 21, 2008 and shall continue in effect until all Performance Shares awarded hereunder have been either earned and vested or have been forfeited in accordance with the terms hereof.

1.2. *Description of Performance Share Award*. The Award consists of an aggregate of   performance shares (the "Performance Shares") representing the right of the Employee to receive an award of that number of shares of the Company's Common Stock, $0.01 par value, ("Stock"), based upon and subject to the achievement of two (2) weighted Company Performance Criteria established by the Administrator. The Performance Shares are divided into two (2) allotments as follows:

(i) Seventy-five percent (75%) of the above aggregate number of Performance Shares shall be earned if and to the extent that the Company's three year Revenue Performance Target is achieved as provided in paragraph 1.4.1 below (the "Revenue Share Unit"); and

(ii) Twenty-Five percent (25%) of the above aggregate number of Performance Shares shall be earned if and to the extent that the Company's three year ROIC Performance Target is achieved as provided in paragraph 1.4.2 below (the "ROIC Share Unit).

Employee's rights to the Performance Shares are subject to the provisions of this Article I, to the restrictions specified in paragraphs 1.4, 1.5 and 1.6 below, to the provisions of the Plan (which is incorporated herein by reference with the same effect as if set forth herein in full) and to the provisions of the Award Terms adopted by the Administrator in addition to such other restrictions, if any, as may be imposed by law.

1.3. *Meaning of Certain Terms*. As used in this Article I, the following terms shall have the meaning specified below:

(i) "Award Terms" means the Performance Share Targets, adjustments to the Performance Share Targets and to the Company's financial performance and other terms governing the Performance Share Award established by the Administrator within ninety (90) days of the start of the fiscal year to which the Award relates.

(ii) "Performance Share Unit" means a Revenue Share Unit or an ROIC Share Unit, as described in paragraph 1.2 above.

(iii) "Revenue" means the GAAP revenue as derived from the Company's audited financial statements for fiscal years 2008, 2009 and 2010.

(iv) "ROIC" means the return on invested capital calculated in accordance with GAAP as derived from the Company's audited financial statements for fiscal years 2008, 2009 and 2010.

(v) "ROIC Performance Target" means the three year average ROIC target performance over the three fiscal years of the Company ended December 31, 2008, 2009 and 2010 as established as an absolute target by the Administrator in the Award Terms.

(vi) "Revenue Performance Target" means the three year aggregate Revenue target over the three fiscal years of the Company ended December 31, 2008, 2009 and 2010, as established as an absolute target by the Administrator in the Award Terms.

1.4. *Calculation of Award of Performance Shares*. The calculation of the Award of Performance Shares shall be made as follows, but shall be subject to adjustment as specified in paragraph 1.7 below:

1.4.1. **Revenue Share Unit.** The award of the Revenue Share Unit will depend on the extent to which the Company achieves the Revenue Performance Target established by the Administrator and set forth in the Award Terms for the three year period including fiscal years 2008, 2009 and 2010. Depending on the Company's Revenue performance over the three year period, Employee may earn from 0-200% of the number of shares covered by the Revenue Share Unit. Any award of a Revenue Share Unit will be made within 30 days following the release of the Company's fiscal 2010 audited financial statements. Revenue performance for each of fiscal years 2008, 2009 and 2010 shall be aggregated and that aggregate number shall be divided by the Revenue Performance Target to obtain a Revenue performance percentage. The Revenue performance percentage shall be applied to the following table to yield the Revenue Share Unit Pay Out Multiplier.

Actual Revenue Performance Percentage versus Revenue Performance Target	Revenue Share Unit Pay Out Multiplier
0-79%	0
80%	.40
90%	.70
100%	1.00
110%	1.30
120%	1.60
130%+	2.00

The Pay Out Scale in the above table is linear. From 80% to 120%, each percent of improvement is worth .03%; from 120% to 130%, each percent of improvement is worth .04%. The Revenue Share Unit Pay Out Multiplier yielded by the table above is then applied to the Revenue Share Unit to yield the number of Performance Shares earned with respect to the Revenue Share Unit. Seventy-five percent (75%) of the Performance Shares earned with respect to the Revenue Share Unit shall be vested; the remaining 25% of such Performance Shares shall be subject to the restrictions specified in Section 1.8 below until February 19, 2012 on which date such restrictions shall lapse and the Performance Shares shall be fully vested.

1.4.2. **ROIC Share Unit.** The award of the ROIC Share Unit will depend on the extent to which the Company achieves the ROIC Performance Target established by the Administrator and set forth in the Award Terms for the three year period including fiscal years 2008, 2009 and 2010. Depending on the Company's average ROIC performance, Employee may earn from 0-200% of the number of shares covered by the ROIC Share Unit. Any award of an ROIC Share Unit will be made within 30 days following the release of the Company's fiscal 2010 audited financial statements. ROIC performance for each of fiscal years 2008, 2009 and 2010 shall be averaged and that average shall be divided by the Average ROIC Target to obtain an ROIC performance percentage. The ROIC performance percentage shall be applied to the following table to yield and ROIC Share Unit Pay Out Multiplier.

Actual ROIC Performance Percentage versus Average ROIC Target	ROIC Share Unit Pay Out Multiplier
0-79%	0
80%	.40
90%	.70
100%	1.00
110%	1.30
120%	1.60
130%+	2.00

The Pay Out Scale in the above table is linear. From 80% to 120%, each percent of improvement is worth .03%; from 120% to 130%, each percent of improvement is worth .04%. The ROIC Share Unit Pay Out Multiplier yielded by the table above is then applied to the ROIC Share Unit to yield the number of Performance Shares earned with respect to the ROIC Share Unit. Seventy-five percent (75%) of the Performance Shares earned with respect to the ROIC Share Unit shall be vested and free of all restrictions; the remaining 25% of such Performance Shares shall be subject to the restrictions specified in Section 1.8 below until February 19, 2012 on which date such restrictions shall lapse and the Performance Shares shall be fully vested.

The determination as to whether an award has been earned under the Revenue Share Unit and the ROIC Share Unit shall calculated separately.

1.5. *Additional Conditions to the Award of Performance Shares*. Employee shall be entitled to receive any award of a Performance Share Unit that has been earned during a fiscal year only if the Employee is in the employ of the Company or any of its subsidiaries on the last day of the fiscal year in question, and otherwise meet the participation requirements specified in the Plan as determined by the Administrator which determination shall be final and binding as to all interested parties.

1.6. *Disability*. In the event of the Employee's death or disability (as determined under the Company's long-term disability plan then covering the participant) ("Disability"), before the award of a Performance Share Unit is earned or vests, the Administrator, in its sole discretion, may provide for the partial award of any such Performance Share Unit on an equitable basis reflecting the performance of the Company during the period of the fiscal year until the date of death or Disability.

1.7. *Adjustments, etc*. Subject to the terms hereof, the Administrator shall make adjustments from time to time in the number of Performance Shares specified in paragraph 1.2 above as well as in the Financial Performance Metrics in such reasonable manner as the Administrator may determine to reflect:

(i) any increase or decrease in the number of issued shares of Stock of the Company resulting from a subdivision or consolidation of shares or any other capital adjustment, the payment of stock dividends or other increases or decreases in such Stock effected without receipt of consideration by the Company;

(ii) material changes in the Company's accounting practices or principles, the effect of which would be to distort the calculation of the Financial Performance Metrics;

(iii) material acquisitions or dispositions, the effect of which would be to distort the calculation of the Financial Performance Metrics;

(iv) a Change of Control; or

(v) extraordinary, unusual, and nonrecurring items (such as restructuring charges and discontinued operations) which are disclosed in the published audited financial statements and which would distort the calculation of the Financial Performance Metrics;

provided, *however*, that to be effective all such adjustments must be set forth in the Award Terms and that no such adjustment shall be made to the extent that the Administrator determines that adjustment would cause an award to fail to be fully deductible by the Company on account of Section 162(m) of the Internal Revenue Code of 1986, as amended.

1.8. *Performance Share Restrictions*. To the extent provided in Subsections 1.4.1 and 1.4.2 above, but subject to Sections 1.6 above and Sections 3.2 and 3.3 below, Performance Shares that have been earned but not vested shall be subject to the following restrictions: **(i)** the Performance Shares shall not be sold, transferred, pledged, assigned or otherwise encumbered or disposed of; and **(ii)** if the Employee ceases to be employed by the Company and/or its subsidiaries for any reason, including death, any then outstanding and unvested Performance Shares earned hereunder shall be automatically and immediately forfeited. The Employee shall be entitled to **(A)** receive any and all dividends or other distributions paid with respect to Performance Shares subject to restrictions hereunder of which Employee is the record owner on the record date for such dividend or other distribution, and **(B)** vote any Performance Shares subject to restrictions hereunder of which Employee is the record owner on the record date for such vote. In connection therewith, Employee agrees that the Company shall be entitled to withhold delivery of all earned but unvested Performance Shares until vested in accordance with Subsections 1.4.1 and 1.4.2 above.

1.9. *Withholding of Income Taxes*. To the extent required by applicable federal, state or other law, Employee shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise by reason of the vesting of any Performance Shares earned in accordance with the terms hereof. The Company shall not be required to issue shares of the Stock or to recognize any purported transfer of shares of the Stock until such obligations are satisfied. The Administrator designated in the Plan may permit these obligations to be satisfied by having the Company withhold a portion of the shares of the Stock that otherwise would be issued to Employee upon vesting of Performance Shares earned hereunder, or to the extent permitted by the Administrator, by tendering shares of the Stock previously acquired.

ARTICLE II – STOCK OPTION GRANT

2.1. *Option Grant*. Effective February 21, 2008 (the "Grant Date") the Company hereby grants Employee a non-qualified option to purchase shares of Stock ("Option"). The Option is not intended to be an incentive stock option under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code") and will be interpreted accordingly.

2.2. *Option Exercise Price*. The exercise price of the Option shall be 100% of the closing price of the Stock on the NASDAQ stock market on the Grant Date ($7.07 per share).

2.3. *Option Vesting Schedule*. This Option shall vest and become exercisable, except as hereinafter provided, in whole or in part, at any time and from time to time as follows:

$^1/_3$ on or after the *first* anniversary of the Grant Date;

an additional $^1/_3$ on or after the *second* anniversary of the Grant Date; and

the final $^1/_3$ on or after the *third* anniversary of the Grant Date.

In the event that any of the above vesting dates falls on a day that the Company is not open for business, then vesting of the applicable portion shall occur on the next succeeding day that the Company is open for business.

2.4. *Expiration of Option*. To the extent that the Option shall not have been exercised, this Option shall expire at 5:00 p.m. local time at the Company's headquarters on February 21, 2015 and no part of the Option may be exercised thereafter. If an expiration, termination or forfeiture date described herein falls on a weekday, Employee must exercise Employee's Option before 5:00 p.m. local time at the Company's headquarters on that date. If an expiration, termination or forfeiture date described herein falls on a weekend or any other day on which the NASDAQ stock market is not open, Employee must exercise the Options before 5:00 p.m. local time at the Company's headquarters on the last NASDAQ business day prior to the expiration, termination or forfeiture date.

2.5. *Exercise of Option*. This Option may be exercised up to the number of shares of Stock specified in Section 2.1 above only by serving written notice on the designated stock plan administrator. Payment of the Option exercise price specified in Section 2.2 above may be made by: **(a)** payment in cash; **(b)** arrangement with the Company's stock plan administrator which is acceptable to the Company where payment of the Option exercise price is made pursuant to an irrevocable direction to the broker to deliver all or part of the proceeds from the sale of the shares of the Stock issueable under the Option to the Company; **(c)** exchange of previously owned shares of Stock, valued at fair market value on the day of exercise as provided in the Plan; **(d)** delivery of any other lawful consideration approved in advance by the Administrator specified in the Plan or its delegate, or **(e)** any combination of the foregoing. Fractional shares may not be exercised. Employee will have the rights of a stockholder only after the shares of Stock have been issued to Employee in accordance with this Agreement.

2.6. *No Assignment of Option*. This Option may not be assigned or transferred except as may otherwise be provided by the terms of this Agreement.

2.7. *Basic Adjustments for Changes in Capital Structure*. The Administrator shall make adjustments from time to time in the number of shares of Stock covered by the Option as specified in paragraph 2.1 above in such reasonable manner as the Administrator may determine to reflect any increase or decrease in the number of issued shares of Stock of the Company resulting from a subdivision or consolidation of shares or any other capital adjustment, the payment of stock dividends or other increases or decreases in such Stock effected without receipt of consideration by the Company.

2.8. *Termination of Employment with the Company*. All exercisable Options granted herein must be exercised within ninety (90) days following the date on which the employment of Employee with the Company or one of its subsidiaries terminates (i.e., last day worked, excluding any severance period) ("Termination Date"), or be forfeited, except as provided in Section 3.3 below and as follows:

(a) In the event of Employee's death during employment, each Option granted hereunder will be exercisable, whether or not vested on the date of Employee's death, until the earlier of: **(1)**

the first anniversary of Employee's date of death; or **(2)** the original expiration date of the option. In the event of Employee's death during a Special Exercise Period as specified in Section 3.3 below, each Option will continue to be exercisable in accordance with the provisions of that Section.

(b) In the event of the termination of employment of Employee due to Disablement, Employee may exercise the Option, to the extent not previously exercised and whether or not the option had vested on or prior to the date of employment termination, at any time prior to 365 days following the later of the date of Employee's termination of employment due to Employee's Disablement or the date of determination of Employee's Disablement, *provided*, *however*, that while the claim of Disablement is pending, Options that were unvested at termination of employment may not be exercised and Options that were vested at termination of employment may be exercised only during the period set forth in the introductory clause to this Section 2.8. The Option shall terminate on the 365th day from the date of determination of Disablement, to the extent that it is unexercised. For these purposes "Disablement" shall be determined in accordance with the standards and procedures of the then-current Long Term Disability policies maintained by the Company, which is generally a physical condition arising from an illness or injury, which renders an individual incapable of performing work in any occupation, as determined by the Company.

(c) If Employee's employment is terminated for "Cause", all granted but unexercised stock Options shall be forfeited on Employee's Termination Date.

2.9. *Suspension of Option Exercises*. For administrative or other reasons, the Company may, from time to time, suspend the ability of employees to exercise options for limited periods of time. Notwithstanding the above, the Company shall not be obligated to deliver any shares of Stock during any period when the Company determines that the exerciseability of the Option or the delivery of shares hereunder would violate any federal, state or other applicable laws.

2.10. *Withholding of Income Taxes*. Nonqualified stock options are taxable upon exercise. To the extent required by applicable federal, state or other law, Employee shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise by reason of an Option exercise and, if applicable, any sale of shares of the Stock. The Company shall not be required to issue shares of the Stock or to recognize any purported transfer of shares of the Stock until such obligations are satisfied. The Administrator designated in the Plan may permit these obligations to be satisfied by having the Company withhold a portion of the shares of the Stock that otherwise would be issued to Employee upon exercise of the Option, or to the extent permitted by the Administrator, by tendering shares of the Stock previously acquired.

ARTICLE III – GENERAL PROVISIONS

3.1. *Definitions*. Except as otherwise expressly provided, all terms used herein shall have the same meaning as in the Plan. The term "Administrator" means the Management Development & Compensation Committee of the Company's Board of Directors.

3.2. *Mergers, etc*. In the event of any of **(i)** a consolidation or merger in which the Company is not the surviving corporation or which results in the acquisition of all or substantially all of the Company's then outstanding common stock by a single person or entity or by a group of persons and/or entities acting in concert, **(ii)** a sale or transfer of all or substantially all the Company's assets, or **(iii)** a dissolution or liquidation of the Company (a "Covered Transaction"), all outstanding Awards pursuant to Article I above shall vest immediately prior to the Covered Transaction and the vesting of all Options under each outstanding Award pursuant to Article II above will be accelerated and such shares will become fully exercisable prior to the Covered Transaction on a basis that gives the undersigned a reasonable opportunity, as determined by the Administrator, following delivery of the shares, to participate as a stockholder in the Covered Transaction; provided, that to the extent such acceleration would cause an Award pursuant to Article I to fail to satisfy the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, the Award shall not be accelerated and the Administrator in lieu thereof shall take such steps as are necessary to ensure that payment of the Award is made in a medium other than Stock and on terms that as nearly as possible replicate the prior terms of the Award. In connection with any Covered Transaction in which there is an acquiring or surviving entity, the Administrator may provide for substitute or replacement Awards from, or the assumption of Awards by, the acquiring or surviving entity or its affiliates, any such substitution, replacement or assumption to be on such terms as the Administrator determines, provided that no such replacement or substitution shall diminish in any way the acceleration of Awards provided for in this section.

3.3. *Retirement, etc*. If Employee ceases to be an employee due to retirement with the consent of the Administrator, Employee will be entitled to: **(i)** a special exercise period with respect to the Option (the "Special Exercise Period") which will begin on Employee's Retirement Date and will end on the earlier of the 3rd anniversary of Employee's Retirement Date or February 21, 2015. During the Special Exercise Period, the Option will continue to vest in accordance with the schedule specified in Section 2.3 above and will be exercisable to the same extent that it would have been exercisable had Employee remained employed by the Company or one of its subsidiaries; and **(ii)** a special award vesting period with respect to the Performance Shares (the "Special Award Vesting Period") which will begin on Employee's Retirement Date and will end on the earlier of the 3^{rd} anniversary of Employee's Retirement Date or the Award Expiration Date. During the Special Award Vesting Period, all Performance Shares will continue to be earned in accordance with the terms of the Award provided in Article I above and Performance Shares will be issued to the same extent that they would have been issued had Employee remained employed by the Company or one of its subsidiaries; all Performance Shares issued in accordance herewith shall be vested and free of restrictions.

3.4. *No Understandings as to Employment*. The undersigned Employee further expressly acknowledges that nothing in the Plan or any modification thereto, in the Award or in this Agreement shall constitute or be evidence of any understanding, express or implied, on the part of the Company to employ the Employee for any period or with respect to the terms of the undersigned's employment or to give rise to any right to remain in the service of the Company or of any subsidiary or affiliate of the Company, and the undersigned shall remain subject to discharge to the same extent as if the Plan had never been adopted or the Award had never been made.

3.5. *Acts of Misconduct*. If Employee has allegedly committed an act of serious misconduct, including, but not limited to, embezzlement, fraud, dishonesty, unauthorized disclosure of trade secrets or confidential information, breach of fiduciary duty or nonpayment of an obligation owed to the Company, an Executive Officer of the Company may suspend Employee's rights under the Award, including the vesting of Restricted Stock and Options and the exercise of vested Options, pending a decision by the Administrator or an Executive Officer to terminate the Award. No rights under the Award may be exercised during such suspension or after such termination.

3.6. *Disputes*. The Administrator designated in the Plan or its delegate shall finally and conclusively determine any disagreement concerning the Award.

3.7. *Savings Clause*. In the event that Employee is employed in a jurisdiction where the performance of any term or provision of this Agreement by the Company: **(i)** will result in a breach or violation of any statute, law, ordinance, regulation, rule, judgment, decree, order or statement of public policy of any court or governmental agency, board, bureau, body, department or authority, or **(ii)** will result in the creation or imposition of any penalty, charge, restriction, or material adverse effect upon the Company, then any such term or provision shall be null, void and of no effect.

3.8. *Amendment*. This Agreement may be amended only by an instrument in writing executed and delivered by the Employee and the Company.

Dated: , 2008

(Signature of Employee)

The foregoing Agreement is hereby accepted:

Entegris, Inc.

By

Title

Exhibit 21

Subsidiaries of Entegris, Inc.

Name of Subsidiary	Jurisdiction
Entegris Asia LLC	Delaware
Entegris Singapore Pte. Ltd.	Singapore
Entegris Pte. Ltd.	Singapore
Entegris Korea Ltd.	South Korea
Entegris Taiwan Technologies., Ltd.	Taiwan
Entegris Pacific Ltd.	Delaware
Entegris (Shanghai) Microelectronics Trading Company Ltd.	Peoples Republic of China
Mykrolis (Shanghai) Microelectronics Company Ltd.	Peoples Republic of China
Entegris International Holdings B.V.	The Netherlands
Entegris GmbH (1)	Germany
Entegris (UK) Ltd.	United Kingdom
Entegris Ireland Ltd.	Ireland
Mykrolis Ireland Ltd.	Ireland
Entegris SAS	France
Entegris Israel Ltd.	Israel
Entegris Materials Integrity India Private Limited	India
Entegris Cleaning Process (ECP) SAS	France
Nihon Entegris K.K.	Japan
Entegris Malaysia Sdn. Bhd.	Malaysia
Entegris Netherlands, Inc.	Minnesota
Entegris Precision Technology Corp. (2)	Taiwan
Entegris Logistics, Inc.	Delaware
Entegris Materials, Inc.	Delaware
Poco Graphite Holdings, LLC	Delaware
Poco Graphite, Inc.	Delaware
Poco Graphite International, Inc.	Delaware
Poco Graphite SARL (3)	France

(1) Owned 90% by Entegris International Holdings B.V. and 10% by registrant
(2) Denotes a joint venture company of which registrant owns 50% of the voting equity
(3) Owned 90% by Poco Graphite, Inc. and 10% by Poco Graphite International, Inc.

Exhibit 23

Consent of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
Entegris, Inc.:

We consent to incorporation by reference in the registration statements on Form S-3 (No. 333-105962) and on Form S-8 (Nos. 333-127599 and 333-53382) of Entegris, Inc. of our report dated March 2, 2009, with respect to the consolidated balance sheets of Entegris, Inc. and subsidiaries as of December 31, 2008 and December 31, 2007, and the related consolidated statements of operations, shareholders' equity and comprehensive income (loss), and cash flows for the three years ended December 31, 2008, 2007 and 2006 and the effectiveness of internal control over financial reporting as of December 31, 2008, which report appears in the December 31, 2008 annual report on Form 10-K of Entegris, Inc.

As discussed in Note 16 to the consolidated financial statements, the Company adopted the provisions of Financial Accounting Standards Board Interpretation No. 48, "*Accounting for Uncertainty in Income Taxes an interpretation of FASB Statement No. 109"* as of January 1, 2007.

As discussed in Note 19 to the consolidated financial statements, the Company adopted the provisions of Financial Accounting Standards Board Statement No. 157, "*Fair Value Measurements*" as of January 1, 2008.

/s/ KPMG LLP

Minneapolis, Minnesota
March 2, 2009

Exhibit 24

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned Directors and Officers of **Entegris, Inc.** (the "Corporation"), do hereby constitute and appoint Gideon Argov, Bertrand Loy, Gregory B. Graves and Peter W. Walcott and each of them individually, their true and lawful attorneys and agents to execute on behalf of the Corporation the Form 10-K Annual Report of the Corporation for the fiscal year ended December 31, 2008, together with all such amendments thereto on Form 10-K/A as well as additional extensions or other instruments related thereto which such attorneys and agents may deem to be necessary and desirable to enable the Corporation to comply with the requirements of the Securities Exchange Act of 1934, as amended, and any regulations, orders, or other requirements of the United States Securities and Exchange Commission thereunder in connection with the preparation and filing of said documents, including specifically, but without limitation of the foregoing, power and authority to sign the names of each of such Directors and Officers on his behalf, as such Director or Officer, as indicated below to the said Form 10-K Annual Report, any Form 10-K/A that may be required to be filed or any other documents filed or to be filed as a part of or in connection with such Form 10-K Annual Report; and each of the undersigned hereby ratifies and confirms all that said attorneys and agents shall do or cause to be done by virtue thereof.

SIGNATURE	TITLE	DATE
/s/ Gideon Argov Gideon Argov	President, Chief Executive Officer and Director	February 25, 2009
/s/ Roger D. McDaniel Roger D. McDaniel	Chairman of the Board and Director	February 25, 2009
/s/ Michael A. Bradley Michael A. Bradley	Director	February 25, 2009
/s/ Michael P.C. Carns Michael P.C. Carns	Director	February 25, 2009
/s/ Daniel W. Christman Daniel W. Christman	Director	February 25, 2009
/s/ Gary F. Klingl Gary F. Klingl	Director	February 25, 2009
/s/ Paul L.H. Olson Paul L.H. Olson	Director	February 25, 2009
/s/ Brian F. Sullivan Brian F. Sullivan	Director	February 25, 2009

Exhibit 31.1

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Gideon Argov, certify that:

1. I have reviewed this Annual Report on Form 10-K of Entegris, Inc.;
2. Based on my knowledge, this annual 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 annual report, fairly present in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual 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 (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
5. The registrant's other certifying officer 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 (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 2, 2009

/s/ Gideon Argov

Gideon Argov
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Gregory B. Graves, certify that:

1. I have reviewed this Annual Report on Form 10-K of Entegris, Inc.;
2. Based on my knowledge, this annual 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 annual report, fairly present in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual 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 (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
5. The registrant's other certifying officer 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 (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 2, 2009

/s/ Gregory B. Graves

Gregory B. Graves
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K (the "Report") of Entegris, Inc, a Delaware corporation (the "Company"), for the fiscal year ended December 31, 2008 as filed with the Securities and Exchange Commission on the date hereof, I, Gideon Argov, President and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 2, 2009

/s/ Gideon Argov
Gideon Argov
Chief Executive Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K (the "Report") of Entegris, Inc, a Delaware corporation (the "Company"), for the fiscal year ended December 31, 2008 as filed with the Securities and Exchange Commission on the date hereof, I, Gregory B. Graves, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 2, 2009

/s/ Gregory B. Graves

Gregory B. Graves
Chief Financial Officer