DYNAMIC MATERIALS CORP
Form 10-K
March 13, 2009

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ý **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2008

o **TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES ACT OF 1934**

For the transition period from to
Commission file number 001-14775

DYNAMIC MATERIALS CORPORATION

(Exact name of Registrant as specified in its charter)

Delaware	**84-0608431**
(State of Incorporation or Organization)	(I.R.S. Employer Identification No.)

5405 Spine Road, Boulder, Colorado 80301
(Address of principal executive offices, including zip code)

(303) 665-5700
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: **Common Stock, $.05 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 o No ý

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ý

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 ý No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ý

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "larger accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12-b2 of the Exchange Act.

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No ý

The approximate aggregate market value of the voting stock held by non-affiliates of the registrant was $401,430,970 as of June 30, 2008.

The number of shares of Common Stock outstanding was 12,841,377 as of March 6, 2009.

Certain information required by Items 10, 11, 12, 13 and 14 of Form 10-K is incorporated by reference into Part III hereof from the registrant's proxy statement for its 2007 Annual Meeting of Shareholders, which is expected to be filed with the Securities and Exchange Commission ("SEC") within 120 days of the close of the registrant's fiscal year ended December 31, 2008.

PART I

ITEM 1. Business

Overview

Dynamic Materials Corporation is an industrial manufacturer focusing on niche markets related to the building of equipment and materials, to support the infrastructure of the process and energy industries. Built upon specialized technologies, the company seeks to establish a global presence through an international network of manufacturing facilities and sales offices. Today, the Company operates in three business segments: Explosive Metalworking, Oilfield Products, and AMK Welding.

We are a leading provider of explosion-welded clad metal plates. Explosion-weld cladding uses an explosive charge to bond together plates of different metals that do not bond easily with traditional welding techniques. We refer to this part of our business as "DMC Clad" or the "Explosive Metalworking" segment. DMC Clad markets its explosion-welded clad products under the Detaclad® trade name. DMC Clad's products are used in critical applications in a variety of industries, including oil and gas, alternative energy, chemical and petrochemical, hydrometallurgy, aluminum production, shipbuilding, power generation and industrial refrigeration. DMC Clad's market leadership for explosion-welded clad metal plates is a result of its state-of-the-art manufacturing facilities, technological leadership, and production expertise. We believe our customers select us for our high quality product, speed and reliability of delivery, and cost effectiveness. We have a global sales force through which we sell our products in international markets. Our Explosive Metalworking operations, which were recently expanded through our 2007 acquisition of DYNAenergetics, are located in the United States, Germany, France, and Sweden.

Through our Oilfield Products segment, which we also refer to as "DYNAwell" or "DYNAenergetics," we provide a range of proprietary and nonproprietary products for the global oil and gas industries. These products relate primarily to oil and gas well perforation, which is a process of punching holes in the casing of a well to enable easier and more precise recovery of oil or gas from a targeted formation. Manufactured products include shaped charges, detonators and detonating cords, bidirectional boosters, and perforating guns for the perforation of oil and gas wells. DYNAwell also distributes a line of seismic products that support oil and gas exploration activities. DYNAwell's primary manufacturing and sales operations are located in Germany.

Our AMK Welding segment ("AMK Welding") provides advanced welding services, primarily to the power turbine and aircraft engine manufacturing industries. AMK Welding is a highly specialized welding subcontracting shop for complex shapes used principally in gas turbines and aircraft engines. AMK Welding's operations are conducted at its Connecticut facility.

Clad Metal Industry

Clad metal plates are typically used in the construction of heavy, corrosion resistant pressure vessels and heat exchangers for oil and gas, alternative energy, chemical and petrochemical, hydrometallurgy, power generation, industrial refrigeration, and similar industries. Clad metal plates consist of a thin layer of an expensive, corrosion resistant metal, such as titanium or stainless steel, which is metallurgically combined with a less expensive structural base metal, such as steel. For heavy equipment, clad generally provides a cost savings alternative to building the equipment of solely the corrosion resistant alloy.

There are three major industrial clad plate manufacturing technologies:

Explosion welding

Hot Rollbonding

Weld overlay

Explosion welding is the most versatile clad plate manufacturing technology. Being a robust cold welding technology, explosion-welded clad products exhibit high bond strength combined with the unaltered corrosion resistance and mechanical properties of the pre-clad components. The explosion-welded clad process is suitable for joining virtually any combination of common engineering metals. Explosion-welded clad metal is produced as flat plates or concentric cylinders which can be further formed and fabricated as needed. When fabricated properly, the two metals will not come apart, The dimensional capabilities of the process are broad; cladding metal layers can range from a few thousandths of an inch to several inches; base metal thickness and lateral dimensions are primarily limited by the size capabilities of the world's metal production mills. Explosion welding is used to clad a very broad range of metals to steel including aluminum, titanium, zirconium, nickel alloys, and stainless steels. The alternative technologies are typically limited to the latter two. In addition to use as clad plates, the explosion welded components can be used as transition pieces, facilitating conventional welding of dissimilar metals. DMC clad transition Joints are used in the aluminum production and shipbuilding industries.

Hot rollbonding is performed by a small group of the world's heavy plate rolling mills. In this process, the clad metal and base metal are bonded together during the hot rolling operation in which the metal slab is converted to plate. Being a high temperature process, hot rollbond is limited to joining similar metals, such as stainless steel and nickel alloys to steel. Rollbond's niche is production of large quantities of light to medium gauge clad plates; it is frequently lower cost than explosion clad when total metal thickness is under 1 to 2 inches (dependent upon alloy and a number of other factors.) Rollbond products are generally suitable for most vessel applications but have lower bond shear strength and may have inferior corrosion resistance.

In weld overlay cladding, the clad metal layer is deposited on the base metal using arc-welding type processes. Weld overlay is a cost-effective technology for complicated shapes, for field service jobs, and for production of heavy-wall pressure vessel reactors. During overlay welding, the cladding metal and base metal are melted together at their interface, the resulting dilution of the cladding metal chemistry may compromise corrosion performance and limit use in certain applications. Weld metal shrinkage during cooling potentially causes distortion when the base layer is thin; consequently, overlay is rarely the technically preferred solution for construction of new equipment when thicknesses are under 3 to 4 inches. As with rollbond, weld overlay is limited to metallurgically similar metals, primarily stainless steels and nickel alloys joined to steel. Weld overlay is typically performed in conventional metal fabrication shops.

Clad Metals End Use Markets

Explosion-welded clad metal is primarily used in construction of large industrial equipment involving high pressures and temperatures and needs to be corrosion resistant. The eight broad industrial sectors discussed below comprise the bulk of demand for DMC Clad's business. The demand for clad metal is driven by the underlying demand for new equipment and facility maintenance in these primary market sectors. Overall, the market for explosion-welded clad metal has continuously grown since its inception, with demand dependent upon the underlying needs of the various market sectors. There has been significant capital investment in many of these markets.

Oil and Gas: Oil and gas end use markets include both oil and gas production and petroleum refining. Oil and gas production covers a broad scope of operations related to recovering oil and/or gas for subsequent processing in refineries. Clad metal is used in separators, glycol contactors, piping, heat exchangers and other related equipment. The increase in oil and gas production from deep, hot, and corrosive fields has significantly increased the demand for clad equipment. Many non-traditional energy production methods are potentially commercially viable for bringing natural gas to the market. Clad is

commonly used in these facilities. The primary clad metals for this market are stainless steel and nickel alloys clad to steel, with some use of reactive metals.

Petroleum refining processes frequently are corrosive, are hot, and operate at high pressures. Clad metal is extensively used in a broad range of equipment including desulfurization hydrotreaters, coke drums, distillation columns, separators and heat exchangers. In the United States, refineries are running near their full capacity; and adding capacity and reducing costly down-time are a high priority. The increasing reliance upon low quality, high sulfur crude further drives additional demand for new corrosion resistant equipment. Worldwide trends in regulatory control of sulfur emissions in gas, diesel and jet fuel are also increasing the need for clad equipment. Like the upstream oil and gas sector, the clad metals are primarily stainless steel and nickel alloys.

Alternative Energy: Today's oil and gas prices and increasing climate concerns are driving significant upward demand for capital equipment in the alternative energy sector. Frequently, alternative energy technologies involve conditions which necessitate clad metals. Solar panels predominantly incorporate high purity silicon. Processes for manufacture of high purity silicon utilize a broad range of highly corrosion resistant clad alloys. Many geothermal fields are corrosive, requiring high alloy clad separators to clean the hot steam. Cellulosic ethanol technologies may require corrosion resistant metals such as titanium and zirconium.

Chemical and Petrochemical: Many common products, ranging from plastics to drugs to electronic materials, are produced by chemical processes. Because the production of these items often involves corrosive agents and is conducted under high pressures or temperatures, corrosion resistant equipment is needed, equipment which is best and most cost-effectively produced using clad construction. One of the larger applications for titanium-clad equipment is in the manufacture of Purified Terephthalic Acid ("PTA"), a precursor product for polyester, which is used in everything from carpets to plastic bottles. This market requires extensive use of stainless steel and nickel alloys, but also uses titanium and, to a lesser extent, zirconium and tantalum.

Hydrometallurgy: The conversion of raw ore to metal generally involves high energy and/or corrosive processes. Traditionally, most metals have been produced by high temperature smelting. Over the past two decades there has been an increasing trend toward acid leaching processes. These hydrometallurgy processes are more environmentally friendly and more energy efficient. The processes for production of nickel, gold, and copper involve acids, high pressures, and high temperatures. Titanium is the metal of choice. Titanium-clad plates are used extensively for construction of autoclaves and peripheral equipment.

Aluminum Production: Aluminum is reduced from its oxide in large electric smelters called potlines. The electric current is carried via aluminum conductors. The electricity must be transmitted into steel components for the high temperature smelting operations. Aluminum cannot be welded to steel conventionally. Explosion-welded aluminum-steel transition joints provide an energy efficient and highly durable solution for making these connections. Modern potlines use a large number of transition joints. Transition joints are typically replaced after approximately five years in service. Although aluminum production is the major electrochemical application for DMC Clad products, there are a number of other electrochemical applications including production of magnesium, chlorine and chlorate.

Shipbuilding: The combined problems of corrosion and top-side weight drive significant demand for our aluminum-steel transition joints. Top-side weight is often a significant problem with tall ships, including cruise ships, naval vessels, ferries and yachts. Use of aluminum in the upper structure and steel in the lower structure provides stability. Bolted joints between aluminum and steel corrode quickly in seawater. Aluminum cannot be welded directly to steel using traditional welding processes. Welded

joints can only be made using transition joints. DMC Clad products can be found on many well known ships, including the QE II and modern U.S. Navy aircraft carriers.

Power Generation: Fossil fuel and nuclear power generation plants require extensive use of heat exchangers, many of which require corrosion resistant alloys to handle low quality cooling water. Our clad plates are used extensively for heat exchanger tubesheets. The largest clad tubesheets are used in the final low pressure condensers. For most coastal and brackish water cooled plants, titanium is the metal of choice technically, and titanium-clad tubesheets are the low cost solution for power plant condensers.

Industrial Refrigeration: Heat exchangers are a core component of refrigeration systems. When the cooling water is seawater, brackish, or even slightly polluted, corrosion resistant metals are necessary. Metal selection can range from stainless steel to copper alloy to titanium. Explosion-welded clad metal is often the low cost solution for making the tubesheets. Applications range from refrigeration chillers on fishing boats to massive air conditioning units for skyscrapers, airports, and deep underground mines.

Oil and Gas Field Perforating Industry

The oil and gas industry utilizes perforating products in oil and gas fields to punch holes in the casing or liner of an oil well to connect it to the reservoir. The operator runs a casing or liner into the well and then inserts the perforating guns, which contain a series of specialized shaped charges. Once fired, the perforating guns provide access to the specified sections of the desired areas of the targeted formations. Completing wells though the use of perforation guns can provide more control over the well.

DYNAwell End Use Markets

DYNAwell products are utilized to perform both perforating services which require shaped charges, detonators, boosters, detonating cords, and perforating guns and seismic prospecting. DYNAwell manufactures and distributes a comprehensive array of perforating products. Our DYNAwell products are generally purchased by oilfield service companies who utilize our perforating products for oil and gas recovery and our seismic products for oil and gas exploration activities.

AMK Welding End Use Markets

Parts for power turbines and aircraft engines must be machined to exacting tolerances and welded according to exacting specifications. Many of those parts have complex shapes, the welding of which requires significant expertise. AMK Welding is a specialized operation that welds complex, shaped parts for machining companies that, in turn, supply the manufacturers of power turbines and aircraft engines. Some machining companies also have their own welding facilities, which compete with AMK Welding for business.

Business Segments

We operate three business segments: Explosive Metalworking (which we also refer to as DMC Clad), Oilfield Products (which we also refer to as DYNAwell or DYNAenergetics), and AMK Welding. The Explosive Metalworking segment uses proprietary explosive processes to fuse dissimilar metals and alloys and has more than 40 years of experience. We are the largest explosion-welded clad metal manufacturer in both North America and Europe. DYNAwell produces special shaped charges, detonators, detonating cords, bidirectional boosters, and perforating guns for the perforation of oil and gas wells and has more than a decade of experience providing specialized products to the oil and gas industry. AMK Welding utilizes various specialized technologies to weld components for use in power-generation turbines as well as commercial and military jet engines and has 40 years of experience.

Explosive Metalworking

The Explosive Metalworking segment seeks to build on its leadership position in its markets. During the year ended December 31, 2008, the Explosive Metalworking segment represented approximately 84% of our revenue. The four manufacturing plants and their respective shooting sites in Pennsylvania, Germany, France and Sweden provide the production capacity to address concurrent projects for DMC Clad's current domestic and international customer base.

The primary product of the Explosive Metalworking segment is explosion-welded clad metal plate. Clad metal plates are used in the construction of heavy, corrosion resistant pressure vessels and heat exchangers for oil and gas, alternative energy, chemical and petrochemical, hydrometallurgy, aluminum production, shipbuilding, power generation, industrial refrigeration, and similar industries. The characteristics of DMC Clad's explosive metalworking processes may enable the development of new products in a variety of industries and DMC Clad continues to explore such development opportunities.

The principal product of metal cladding, regardless of the process used, is a metal plate composed of two or more dissimilar metals, usually a corrosion resistant metal and steel, bonded together. Prior to the explosion-welded clad process, the materials are inspected, the mating surfaces are ground, and the metal plates are assembled for cladding. The process involves placing a sheet of the cladder over a parallel plate of backer material and then covering the cladder material with a layer of specifically formulated explosive. A small gap or "standoff space" is maintained between the alloy cladder and the backer substrate. The explosion is then initiated on one side of the cladder and travels across the surface of the cladder forcing it down onto the backer. The explosion happens in approximately one-thousandth of a second. The collision conditions cause a thin layer of the mating surfaces to be spalled away in a jet. This action removes oxides and surface contaminants immediately ahead of the collision point. The extreme pressures force the two metal components together, creating a metallurgical bond between them. The explosion-welded clad process produces a strong, ductile, continuous metallurgical weld over the clad surface. After the explosion is completed, the resulting clad plates are flattened and cut, and then undergo testing and inspection to assure conformance with internationally accepted product specifications.

EXPLOSION-WELDING PROCESS

Explosion-welded cladding technology is a method to weld metals that cannot be welded by conventional processes, such as titanium-steel, aluminum-steel, and aluminum-copper. It can also be used to weld compatible metals, such as stainless steels and nickel alloys to steel. The cladding metals are typically titanium, stainless steel, aluminum, copper alloys, nickel alloys, tantalum, and zirconium. The base metals are typically carbon steel, alloy steel, stainless steel and aluminum. Although the patents for the explosion-welded cladding process have expired, DMC Clad has proprietary knowledge that distinguishes it from its competitors. The entire explosion-welding process involves significant precision in all stages, and any errors can be extremely costly as they result in the discarding of the expensive raw material metals. DMC Clad's technological expertise is a significant advantage in preventing costly waste.

Explosion-welded clad metal is used in critical applications in a variety of industries, including oil and gas, alternative energy, chemical and petrochemical, hydrometallurgy, aluminum production, shipbuilding, power generation, industrial refrigeration and other industries where corrosion, temperature and pressure combine to produce demanding environments. Explosion-welded clad metal is also used to produce bimetal transition joints or other components which are used in ship construction, and in a variety of electrochemical industries including aluminum production.

DMC Clad's metal products are primarily produced on a project-by-project basis conforming to requirements set forth in customers' purchase orders. Upon receipt of an order, DMC Clad obtains the component materials from a variety of sources based on quality, availability and cost and then produces the order in one of its four manufacturing plants. Final products are processed to meet contract specific requirements for product configuration and quality/inspection level.

DYNAwell

DYNAwell manufactures, markets, and sells perforating explosives and associated hardware and seismic explosives, for the international oil and gas industry. While DYNAwell has been producing detonating cords and detonators and selling these and seismic explosives systems for decades, since 1994 significant emphasis has been placed on enhancing its oilfield product offerings by improving existing products and adding new products. In recent years, various types of detonating cords and detonators have been added as well as bi-directional boosters, a wide range of shaped charges, and corresponding gun systems. Within the last year, DYNAwell began manufacturing detonators for seismic exploration systems. Additionally, DYNAwell now designs and manufactures custom-ordered perforating products for third-party customers according to their designs and specifications.

The kinds of perforating products manufactured by DYNAwell are essential to certain types of modern oil and gas recovery. The products are sold to large, mid-sized, and small oilfield service companies in the U.S., Europe, Africa, the Middle East, and Asia, including direct sales to end users. The market for perforating products is growing. Rising worldwide demand for oil increases the demand for perforating products as oil exploration and recovery expands, leading to increased investment in the oil and gas production industry. Higher levels of exploration (seismic prospecting) and increased production activities in the global oil and gas industry are expected to continue. Increased exploration has led to increasingly complex completion operations, which raise the demand for high quality perforating products.

AMK Welding

AMK Welding employs a variety of sophisticated processes and equipment to provide specialized welding services principally to a power turbine manufacturer and to commercial and military aircraft engine manufacturers. AMK Welding is located in South Windsor, Connecticut.

Welding services are provided on a project-by-project basis based on specifications set forth in customers' purchase orders. Upon receipt of an order for welded assemblies, AMK Welding performs welding services using customer specific welding procedures.

Welding processes utilized by AMK Welding include electron beam and gas tungsten arc welding processes. AMK Welding also has considerable expertise in vacuum chamber welding, which is a critical capability when welding titanium, high temperature nickel alloys and other specialty alloys. These welding techniques are used for the welding of blades and vanes and other turbine parts typically located in the hot gas path of aircraft engines. In addition to its welding capabilities, AMK Welding also uses various heat treatment and non-destructive examination processes, such as radiographic inspection, in support of its welding operations.

Suppliers, Competition, Customer Profile, Marketing and Research and Development

DMC Clad

Suppliers and Raw Materials

DMC Clad uses a range of alloys, steels and other materials for its operations, such as stainless steel, copper alloys, nickel alloys, titanium, zirconium, tantalum, aluminum and other metals. DMC Clad sources its raw materials from a number of different producers and suppliers. DMC Clad holds a limited metal inventory and purchases its raw materials based on contract specifications. Under most contracts, any raw material price increases are passed on to DMC Clad's customers. DMC Clad closely monitors the quality of its supplies and inspects the type, dimensions, markings, and certification of all incoming metals to ensure that the materials will satisfy applicable construction codes. DMC Clad also manufactures a majority of its own explosives from standard raw materials, thus achieving higher quality and lower cost.

Competition

Metal Cladding. DMC Clad faces competition from alternative technologies such as rollbond and weld overlay. Usually the three processes do not compete directly against each other, each having its own preferential domain of application relating to metal used and thicknesses required. However, due to specific project considerations such as technical specifications, price and delivery time, explosion-welding may have the opportunity to compete successfully against these technologies. Rollbond is only produced by a few steel mills in the world. The weld overlay process, which is produced among the many vessel fabricators who are often also DMC Clad customers, is a slow and labor intensive process that requires a large amount of floor space for the equipment.

Explosion-Welded Metal Cladding. Competition in the explosion-welded clad metal business is fragmented. DMC Clad holds a strong market position in the clad metal industry. DMC Clad is the leading producer of explosion-welded clad products in North America, and it has a strong position in Europe against smaller competitors. The main competitor in Asia is a division of Asahi Kasei, which has competitive technology and a recognized local brand name. There are several explosion-welded clad producers in China, most of whom are technically limited and are currently not exporters outside of their domestic market. A number of additional small competitors operate throughout the world. To remain competitive, DMC Clad intends to continue developing and providing technologically advanced manufacturing services, maintain quality levels, offer flexible delivery schedules, deliver finished products on a reliable basis and compete favorably on the basis of price.

Customer Profile

DMC Clad's products are used in critical applications in a variety of industries, including upstream oil and gas, oil refinery, chemical and petrochemical, hydrometallurgy, aluminum production, shipbuilding, power generation, industrial refrigeration and other similar industries. DMC Clad's customers in these industries require metal products that can withstand exposure to corrosive materials, high temperatures and high pressures. DMC Clad's customers can be divided into three tiers: the product end users (e.g., operators of chemical processing plants), the engineering contractors who design and construct plants for end users, and the metal fabricators who manufacture the products or equipment that utilize DMC Clad's metal products. It is typically the fabricator that places the purchase order with DMC Clad and pays the corresponding invoice. DMC Clad has developed strong relationships over the years with the engineering contractors (relatively large companies) who sometimes act as prescriptor to fabricators.

Marketing, Sales, Distribution

DMC Clad conducts its selling efforts by marketing its services to potential customers through senior management, direct sales personnel, program managers, and independent sales representatives. Prospective customers in specific industries are identified through networking in the industry, cooperative relationships with suppliers, public relations, customer references, inquiries from technical articles and seminars and trade shows. DMC Clad markets its clad metal products to three tiers of customers: end-user owner companies, engineering contractors, and metal fabricators. DMC Clad's sales office in the United States covers the Americas and East Asia. Its sales offices in Europe cover the full European continent, Africa, the Middle East, India, and Southeast Asia. These sales teams are further supported by local sales offices in Italy, the Middle East, and India, with contract agents in most other developed countries, including China, Korea, Russia and Brazil. Contract agents typically work under multi-year agreements which are subject to sales performance as well as compliance with DMC Clad quality and customer service expectations. Members of the global sales team may be called to work on projects located outside their usual territory. By maintaining relationships with its existing customers, developing new relationship with prospective customers, and educating all its customers as

to the technical benefits of DMC Clad's products, DMC Clad endeavors to have its products specified as early as possible in the design process.

DMC Clad's sales are generally shipped from the manufacturing locations in the United States, Germany, France, and Sweden. Generally, any shipping costs or duties for which DMC Clad is responsible will be included in the price paid by the customer. Regardless of where the sale is booked (in Europe or the U.S.), DMC Clad will produce it, capacity permitting, at the location closest to the delivery place. In the event that there is a short term capacity issue, DMC Clad produces the order at any of its production sites, prioritizing timing. The various production sites allow DMC Clad to meet customer production needs in a timely manner.

Research and Development

We prepare a formal research and development plan annually. It is implemented at the French, German, and U.S. cladding sites and is supervised by a Technical Committee, chaired by our Chief Executive Officer, that reviews progress quarterly and meets once a year to establish the plan for the following 12 months. The research and development projects concern process support, new products, and special customer-paid projects.

Oilfield Products

Suppliers and Raw Materials

DYNAwell utilizes a variety of raw materials for the production of oilfield perforating and seismic products, including high quality steel tubes, steel and copper, explosives (RDX, HMX, HNS), granulates, plastics and ancillary plastic product components. DYNAwell's product line consists of complex products which require numerous high quality components. DYNAwell obtains its raw materials primarily from a number of different producers in Germany and other European countries, but also purchases materials from North American, Chinese, and other international suppliers.

Competition

DYNAwell faces competition from independent producers of perforating products who are not committed to the large service companies and from large oil and gas service companies, such as Halliburton and Schlumberger, who produce most of their own needs for shaped charges but buy other components from suppliers.

Customer Profile

Onshore and offshore oilfield service companies use our DYNAwell products. Our customers desire perforating products that satisfy both their specific needs and expectations and difficult geological realities, such as high pressures and temperatures in the bore hole, which exist in areas where perforating products and services are used. We believe that our customers must balance costs and risks for every job and that our typical DYNAwell customer possesses a conservative risk tolerance. Consequently, we believe that our customers will be more likely to trust products with proven reliability in the field and will be cautious regarding new product innovation.

The customers for oilfield products can be divided into four broad categories: buying centers of large service companies, service companies worldwide, oil companies with and without their own service companies, and local resellers. DYNAwell's customer base includes clients from each of these categories.

Marketing, Sales, Distribution

DYNAwell's worldwide marketing and sales efforts for its oilfield and seismic products are based in Laatzen, Germany. DYNAwell's sales concept focuses on direct selling, distribution through licensed distributors and independent sales representatives, the establishment of international distribution centers to better manage high international transport costs, and educating current and potential customers about its products and technologies. Currently, DYNAwell sells its oilfield and seismic products through a U.S. distributor, Austin Explosives, and through trading joint ventures that are located in Russia (DYNAenergetics RUS), Kazakhstan (KazDYNAenergetics) and Canada (Canada Ltd.), ventures in which DYNAenergetics holds a majority interest.

Research and Development

DYNAwell attaches great importance to its research and development capabilities and has devoted substantial resources to its R&D programs. The R&D staff works closely with sales and operations management teams to establish priorities and effectively manage individual projects. DYNAwell won the important Spotlight on New Technology Award at the 2007 Offshore Technology Conference in Houston, Texas, for its newly developed No-Debris-Gun technology. Through this success, DYNAwell has increased its profile in the oil and gas industry. An R&D Project Plan, which focuses on new products, process support and customer paid projects, is prepared and reviewed at least annually in cooperation with the Sales, Operations and Quality departments.

AMK Welding

At AMK Welding, the materials welded are a function of the type of parts supplied by the customers and include many steel varieties, various nickel alloys and customer-created proprietary alloys typically used in the aerospace and ground turbine industries. Other than metal wire used in the welding process, AMK Welding does not purchase metals, and it receives the parts to be welded from the customer.

AMK Welding relies on a few key customers for the majority of its business, including GE Energy, General Electric Aircraft Engines and their first tier subcontractors, such as Barnes Aerospace, and divisions of United Technology, such as Hamilton Standard, Sikorsky Aircraft and Pratt and Whitney. In addition, AMK Welding has entered into a 5-year contract to provide welding services to the GE Energy Business of General Electric Company for up to six H System gas turbine engines per year. During the term of this contract, the customer has agreed to use AMK Welding for welding services for the first six H System gas turbine engines such customer manufactures each year. In the aircraft engine business, AMK Welding competes against a few small welding companies that are typically privately owned. AMK Welding competes successfully based on a reputation for uncompromising quality and rapid responsiveness to customer needs.

Corporate History and Recent Developments

The genesis of the Company was an unincorporated business called "Explosive Fabricators," which was formed in Colorado in 1965. The business was incorporated in Colorado in 1971 under the name "E. F. Industries, Inc.," which was later changed to "Explosive Fabricators, Inc." or "EFI". The Company became a public company in 1977. In 1994, the Company changed its name to "Dynamic Materials Corporation." The Company reincorporated in Delaware in 1997 and its stock is currently listed on NASDAQ under the ticker symbol BOOM.

In 1976, the Company became a licensee of Detaclad®, the explosion-weld clad process developed by DuPont in 1959. In 1996, the Company purchased the Detaclad® operating business from Dupont.

Through a series of transactions culminating in June 2000, SNPE, Inc. ("SNPE"), a US corporation indirectly wholly owned by the French Government, acquired approximately 56% of the Company's outstanding common stock through open market purchases as well as direct investment in the Company. SNPE also loaned the Company approximately $1.2 million using a convertible subordinated note. On May 15, 2006, SNPE sold all of the shares it had previously purchased, as well as those received through the conversion of the note, in an underwritten public offering.

During its history, the Company has acquired a number of businesses. In 1998, the Company acquired AMK Welding, currently an operating division of the Company. Also in 1998, the Company acquired PMP and Spin Forge, businesses which were subsequently sold in 2003 and 2004, respectively.

In 2001, the Company acquired substantially all of the stock of Nobelclad Europe SA (a French company) ("Nobelclad"); Nobelclad had previously acquired the stock of Nitro Metall AB (a Swedish company) ("Nitro Metall"). The stock of Nobelclad was acquired from an affiliate of our parent company at the time, SNPE. Early in its history, Nobelclad was a licensee of the Detaclad® technology. The acquisition of Nobelclad expanded the Company's explosive metalworking operations to Europe.

In November 2007, the Company acquired the German company DYNAenergetics GmbH and Co. KG ("DYNAenergetics") and certain affiliates. DYNAenergetics was comprised of two primary businesses: explosive metalworking (DYNAplat) and oilfield products (DYNAwell). This acquisition expanded the Company's explosive metalworking operations in Europe and added a complimentary business segment, oilfield products. During 2008 and with an effective date of January 1, 2008, the DYNAplat explosive metalworking assets and business operations of DYNAenergetics were transferred into Dynaplat GmbH & Co KG, a newly formed 100% owned operating subsidiary of the Company. DYNAenergetics retained the assets, operations and joint venture investments of the DYNAwell oilfield products business.

Our current explosive metalworking segment is comprised of the Company's US Clad operations as well as the assets and operations purchased in the Nobelclad and DYNAplat acquisiitons. The oilfield products segment is comprised entirely of DYNAwell and its joint ventures. Our third segment is AMK Welding. Property locations for these operations are listed in detail in Item 2.

Employees

As of December 31, 2008, we employed 408 permanent employees, the majority of whom are engaged in manufacturing operations, with the remainder being engaged in sales and marketing or corporate functions.

The majority of our manufacturing employees are not unionized. Of the 408 permanent employees, 179 are U.S. based, 146 are based in Germany at the DYNAplat and DYNAWELL facilities, 66 are based in France at the Nobelclad facility and 17 are based in Sweden at Nitro Metall. Approximately 60% of our German-based employees are members of trade unions. About 40% of Nobelclad's employees and all Nitro Metall employees are members of trade unions. In addition, we also use a number of temporary workers at any given time, depending on the workload.

In the last three years, the Company has not experienced any strikes or work stoppages. We believe that employee relations are good.

Insurance

Our operations expose us to potential liabilities for personal injury or death as a result of the failure of a component that has been designed, manufactured, or serviced by us, or the irregularity or failure of products we have processed or distributed. We believe that we maintain liability insurance adequate to protect us from future product liability claims.

Proprietary Knowledge, Permits and Patents

Protection of Proprietary Information. We hold patents related to the business of explosive metalworking and metallic processes and also own certain registered trademarks, including Detaclad®, Detacouple®, Dynalock®, EFTEK®, ETJ 2000® and NOBELCLAD®. Although the patents for the explosion-welded cladding process have expired, our current product application patents expire on various dates through 2020. Since individual patents relate to specific product applications and not to core technology, we do not believe that such patents are material to our business, and the expiration of any single patent is not expected to have a material adverse effect on our operations. Much of the manufacturing expertise lies in the knowledge of the factors that affect the quality of the finished clad product, including the types of metals to be explosion-welded, the setting of the explosion, the composition of the explosive, and the preparation of the plates to be bonded. We have developed this specialized knowledge over our 40 years of experience in the explosive metalworking business. We are very careful in protecting our proprietary know-how and manufacturing expertise, and we have implemented measures and procedures to ensure that the information remains confidential. We hold various patents and licenses through our DYNAwell perforating business, but some of the patents are not yet registered. As with the explosive metalworking business segment, since individual patents relate to specific product applications and not to core technology, we do not believe that such patents are material to our business, and the expiration of any single patent is not expected to have a material adverse effect on our current operations. The DYNAplat division of DMC Clad is protected through business secrets not through patents.

Permits. Explosive metalworking and the production of perforation products involve the use of explosives, making safety a critical factor in our operations. In addition, explosive metalworking and the production of oilfield products are highly regulated industries for which detailed permits are required. These permits require renewal every three or four years, depending on the permit. See Item 1A Risk Factors *Risk Factors Related to the Dynamic Materials Corporation We are subject to extensive government regulation and failure to comply could subject us to future liabilities and could adversely affect our ability to conduct or to expand our business* for a more detailed discussion of these permits.

Foreign and Domestic Operations and Export Sales

All of our sales are shipped from the manufacturing facilities located in the United States, Germany, France and Sweden. The following chart represents our net sales based on the geographic location of the customer. The sales recorded for each country are based on the country to which we shipped the product, regardless of the country of the actual end user. Explosion Metalworking products are usually shipped to the fabricator before being passed on to the end user.

	(Dollars in Thousands)		
	For the years ended December 31,		
	2008	2007	2006
United States	$ 82,036	$ 64,735	$ 56,395
Germany	24,449	8,626	2,265
South Korea	12,938	16,904	3,080
Canada	11,685	12,588	10,787
Australia	11,307	1,039	235
France	10,447	5,280	4,791
Italy	9,517	5,461	3,466
China	8,203	10,790	1,055
India	7,237	2,355	3,764
Spain	7,208	3,492	2,465
Netherlands	4,093	3,033	1,967
Russia	3,604	607	11,137
South Africa	3,381	674	790
Belgium	3,275	6,727	2,546
United Kingdom	3,184	1,278	335
Romania	2,548	480	
Kazakhstan	2,418	151	
Mexico	2,396	1,082	1,230
Switzerland	1,922	665	152
Malaysia	1,914	2,154	358
Norway	1,699	2,596	481
Brazil	1,590	52	476
Sweden	1,388	1,378	677
Other foreign countries	14,138	13,028	5,020
Total	$232,577	$165,175	$113,472

Company Information

We are subject to the informational requirements of the Securities Exchange Act of 1934. We therefore file periodic reports, proxy statements and other information with the Securities Exchange Commission (the "SEC"). Such reports may be obtained by visiting the Public Reference Room of the SEC at 100 F Street, N.E., Washington, D.C. 20549, or by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an internet site at *www.sec.gov* that contains reports, proxy and information statements and other information regarding issuers that file electronically.

Our Internet address is *www.dynamicmaterials.com*. Information contained on our website does not constitute part of this Annual Report on Form 10-K. Our annual report on SEC Form 10-K, quarterly reports on Forms 10-Q, current reports on Forms 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available free of charge on our website as soon as reasonably practicable after we electronically file such material with or furnish it to

the SEC. We also regularly post information about our Company on our website under the Investors tab.

ITEM 1A. Risk Factors

Risk Factors Related to the Explosive Metalworking Industry

We have seen a recent slow down in some of our markets and anticipate sales will decline during 2009.

During the fourth quarter of 2008, we have seen a slowdown in DMC Clad sales to some of the markets we serve and anticipate our sales to further decrease [approximately 12% - 20%] in 2009 from the amount we achieved in 2008. The explosion-weld cladding market is dependent upon sales of products for use by customers in a limited number of heavy industries, including oil and gas, alternative energy, chemicals and petrochemicals, hydrometallurgy, aluminum production, shipbuilding, power generation, and industrial refrigeration. These industries tend to be cyclical in nature and the current worldwide economic downturn has affected many of these markets. Indeed, we have already seen a slowdown in the chemical, petrochemical and hydrometallurgy sectors. An economic slowdown in one or all of these industries whether due to traditional cyclicality, general economic conditions or other factors could impact capital expenditures within the industry. If demand from such industries were to decline or to experience reduced growth rates, our sales would be expected to be affected proportionately, which may have a material adverse effect on our business, financial condition, and results of operations.

Our backlog figures may not accurately predict future sales.

We define "backlog" at any given point in time to consist of all firm, unfulfilled purchase orders and commitments at that time. Generally speaking, we expect to fill most items of backlog within the following 12 months. However, since orders may be rescheduled or canceled and a significant portion of our net sales is derived from a small number of customers, backlog is not necessarily indicative of future sales levels. Moreover, we cannot be sure of when during the future 12-month period we will be able to recognize revenue corresponding to our backlog; nor can we be certain that revenues corresponding to our backlog will not fall into periods beyond the 12-month horizon.

There is a limited availability of sites suitable for cladding operations.

Our cladding process involves the detonation of large amounts of explosives. As a result, the sites where we perform cladding must meet certain criteria, including lack of proximity to a densely populated area, the specific geological characteristics of the site, and the ability to comply with local noise and vibration abatement regulations in conducting the process. The efforts to identify suitable sites and obtain permits for using the sites from local government agencies can be time-consuming and may not be successful. In addition, we could experience difficulty in obtaining or renewing permits because of resistance from residents in the vicinity of proposed sites. The failure to obtain required governmental approvals or permits could limit our ability to expand our cladding business in the future, and the failure to maintain such permits would have a material adverse effect on our business, financial condition and results of operations.

The use of explosives subjects us to additional regulation, and any accidents or injuries could subject us to significant liabilities.

Our operations involve the detonation of large amounts of explosives. As a result, we are required to use specific safety precautions under U.S. Occupational Safety and Health Administration guidelines and guidelines of similar entities in Germany, France and Sweden. These include precautions which must be taken to protect employees from exposure to sound and ground vibration or falling debris associated with the detonation of explosives. There is a risk that an accident or death could occur in

one of our facilities. Any accident could result in significant manufacturing delays, disruption of operations or claims for damages resulting from death or injuries, which could result in decreased sales and increased expenses. To date, we have not incurred any significant delays, disruptions or claims resulting from accidents at our facilities. The potential liability resulting from any accident or death, to the extent not covered by insurance, may require us to use other funds to satisfy our obligations and could cause our business to suffer. See "Our use of explosives is an inherently dangerous activity that could lead to temporary or permanent closure of our shooting sites" below.

Our use of explosives is an inherently dangerous activity that could lead to temporary or permanent closure of our shooting sites.

We use a large amount of explosives in connection with the creation of clad metals. The use of explosives is an inherently dangerous activity. Explosions, even if occurring as intended, can lead to damage to the shooting facility or to equipment used at the facility or injury to persons at the facility. If a person were injured or killed in connection with such explosives, or if equipment at the mine or either of the outdoor locations were damaged or destroyed, we might be required to suspend our operations for a period of time while an investigation is undertaken or repairs are made. Such a delay might impact our ability to meet the demand for our products. In addition, if the mine were seriously damaged, we might not be able to locate a suitable replacement site to continue our operations.

Certain raw materials we use are subject to supply shortages due to general economic conditions.

Although we generally use standard metals and other materials in manufacturing our products, certain materials such as specific grades of carbon steel, titanium, zirconium and nickel can be subject to supply shortages due to general economic conditions or problems with individual suppliers. While we seek to maintain sufficient alternative supply sources for these materials, we may not always be able to obtain sufficient supplies or obtain supplies at acceptable prices without production delays, additional costs, or a loss of product quality. If we were to fail to obtain sufficient supplies on a timely basis or at acceptable prices, such loss or failure could have a material adverse effect on our business, financial condition, and results of operations.

Certain raw materials we use are subject to price increases due to general economic conditions.

The markets for certain metals and other raw materials used in our business are highly variable and are characterized by periods of increasing prices. While prices for much of the raw materials we use have recently decreased, we may again experience increasing prices. We generally do not hedge commodity prices or enter into forward supply contracts; instead we endeavor to pass along price variations to our customers. We may see a general downturn in business if the price of raw materials increases enough for our customers to delay planned projects or use alternative materials to complete their projects.

Risk Factors Related to DYNAwell

Potential downturns in the oil and gas industry and related services industry could have a negative impact on DYNAwell's economic success.

The oil and gas industry is unpredictable and has historically been subject to occasional downturns. Demand for DYNAwell's products is linked to the financial success of the oil and gas industry as a whole, and downturns in the oil and gas industry, especially in the rate of well drilling, could negatively impact DYNAwell's economic success. Demand for oil and gas drives oil and gas field production and exploration, and with it the demand for services and products produced by DYNAwell. A variety of factors affect the demand for DYNAwell products, including governmental regulation of oil and gas

industry and markets, international and domestic prices for oil and gas, weather conditions, the financial condition of DYNAwell's clients, and consumption patterns of oil and gas.

The manufacturing of explosives subjects DYNAwell to various environmental, health and safety laws.

DYNAwell is subject to a number of environmental, health, and safety laws and regulations, the violation of which could result in significant penalties. DYNAwell's continued success depends on continued compliance with applicable laws and regulations. In addition, new environmental, health and safety laws and regulations could be passed which could create costly compliance issues. While DYNAwell endeavors to comply with all applicable laws and regulations, compliance with future laws and regulations may not be economically feasible or even possible.

DYNAwell's continued economic success depends on remaining at the forefront of innovation in the perforating industry.

DYNAwell's position in the perforation market depends in part on its ability to remain an innovative leader in the field. The ability to remain competitive depends in part on the retention of talented personnel. DYNAwell may be unable to remain an innovative leader in the perforation market segment or may be unable to retain top talent in the field.

Risk Factors Related to Dynamic Materials Corporation

Weakness in the general global economy may adversely affect certain segments of our end market customers and reduce our sales and results of operations.

We supply products to customers that fabricate industrial equipment for various capital-intensive industries. The current weakness in the general global economy may adversely affect our end market customers, causing them to cancel or postpone new plant or infrastructure construction, expansion, maintenance, or retrofitting projects that use our DMC Clad products. Similarly, decreased oil and gas well drilling will reduce the sales of our DYNAwell products. Any decrease in the demand for gas turbines and airplane engines will reduce the demand for the work performed by our AMK division. While to date we have not experienced postponements or cancellations of projects important to us, we anticipate a slowing demand from our end-market customers. The global general economic climate may lessen demand for our products and reduce our sales and results of operations.

Our operating results fluctuate from quarter to quarter.

We have experienced, and expect to continue to experience, fluctuations in annual and quarterly operating results caused by various factors, including the timing and size of orders by major customers, customer inventory levels, shifts in product mix, acquisitions and divestitures, and general economic conditions. The upstream oil and gas, oil refinery, chemical and petrochemical, hydrometallurgy, aluminum production, shipbuilding, power generation, industrial refrigeration and other diversified industries to which we sell our products are, to varying degrees, cyclical and tend to decline in response to overall declines in industrial production. As a result, our business is also cyclical, and the demand for our products by these customers depends, in part, on overall levels of industrial production. Any future material weakness in demand in any of these industries could materially reduce our revenues and profitability. In addition, the threat of terrorism and other geopolitical uncertainty could have a negative impact on the global economy, the industries we serve and our operating results.

We typically do not obtain long-term volume purchase contracts from our customers. Quarterly sales and operating results, therefore, depend on the volume and timing of the orders in our backlog as well as bookings received during the quarter. Significant portions of our operating expenses are fixed, and planned expenditures are based primarily on sales forecasts and product development programs. If sales do not meet our expectations in any given period, the adverse impact on operating results may be

magnified by our inability to adjust operating expenses sufficiently or quickly enough to compensate for such a shortfall. Results of operations in any period should not be considered indicative of the results for any future period. Fluctuations in operating results may also result in fluctuations in the price of our common stock. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Customers have the right to change orders until products are completed.

Customers have the right to change orders after they have been placed. If orders are changed, the extra expenses associated with the change will be passed on to the customer. However, because a change in an order may delay completion of the project, recognition of income for the project may also be delayed.

There is no assurance that we will continue to compete successfully against other clad, perforating, and welding companies.

Our explosion-welded clad products compete with explosion-welded clad products made by other manufacturers in the clad metal business located throughout the world and with clad products manufactured using other technologies. Our combined North American and European operations typically supply explosion-welded clad to the worldwide market. There is one other well-known explosion-welded clad supplier worldwide, a division of Asahi-Kasei Corporation of Japan. There are also a number of smaller companies worldwide with explosion-welded clad manufacturing capability, including several companies in China. There are currently no other significant North American based explosion-welded clad suppliers. We focus strongly on reliability, product quality, on-time delivery performance, and low cost manufacturing to minimize the potential of future competitive threats. However, there is no guarantee we will be able to maintain our competitive position.

Explosion-welded clad products also compete with those manufactured by rollbond and weld overlay cladding processes. In rollbond technology, the clad and base metal are bonded together during a hot rolling process in which slab is converted to plate. In weld overlay, which is typically performed by our fabricator customers, the cladding layer is deposited on the base metal through a fusion welding process. The technical and commercial niches of each cladding process are well understood within the industry and vary from one world market location to another. Our products compete with weld overlay clad products manufactured by a significant number of our fabricator customers.

DYNAwell competes principally with perforating companies based in North and South America who produce and market perforating services and products. DYNAwell also competes with oil and gas service companies who are able to satisfy a portion of their perforating needs through in-house production. To remain competitive, DYNAwell must continue to provide innovative products and maintain an excellent reputation for quality, safety, and value. There can be no assurances that we will continue to compete successfully against these companies.

AMK Welding competes principally with other domestic companies that provide welding services to the aircraft engine and power generation industries. Some of these competitors have established positions in the market and long standing relationships with customers. To remain competitive, we must continue to develop and provide technologically advanced welding, heat-treat and inspection services, maintain quality levels, offer flexible delivery schedules, and compete favorably on the basis of price. We compete against other welding companies on the basis of quality, performance and cost. There can be no assurance that we will continue to compete successfully against these companies.

We are dependent on a relatively small number of customers for a significant portion of our net sales.

A significant portion of our net sales is derived from a relatively small number of customers although sales to no one customer exceeded 10% during any of the last three years. We expect to

continue to depend upon our principal customers for a significant portion of our sales, although our principal customers may not continue to purchase products and services from us at current levels, if at all. The loss of one or more major customers or a change in their buying patterns could have a material adverse effect on our business, financial condition, and results of operations. In past years, the majority of DMC Clad's revenues have been derived from customers in the oil and gas, alternative energy, chemicals and petrochemicals, hydrometallurgy, aluminum production, shipbuilding, power generation and industrial refrigeration industries and the majority of AMK Welding's revenues have been derived from customers in the aircraft engine and power generation industries. Economic downturns in these industries could have a material adverse effect on our business, financial condition, and results of operations.

DYNAwell, which is expected to contribute approximately 15% to our 2009 sales, has customers throughout the world. The Russian market is currently DYNAwell's largest market with more than 30% of its sales coming from that market. Economic or political instability in Russia could have a material adverse affect on DYNAwell's business and operating results.

AMK Welding, which is expected to contribute approximately 5% to our 2009 sales, continues to rely primarily on one customer for the majority of its sales. This customer and AMK Welding have entered into a long-term supply agreement for certain of the services provided to this customer. Any termination of or significant reduction in AMK Welding's business relationship with this customer could have a material adverse effect on AMK Welding's business and operating results.

Failure to attract and retain key personnel could adversely affect our current operations.

Our continued success depends to a large extent upon the efforts and abilities of key managerial and technical employees. The loss of services of certain of these key personnel could have a material adverse effect on our business, results of operations, and financial condition. There can be no assurance that we will be able to attract and retain such individuals on acceptable terms, if at all; and the failure to do so could have a material adverse effect on our business, financial condition, and results of operations.

Liabilities under environmental and safety laws could result in restrictions or prohibitions on our facilities, substantial civil or criminal liabilities, as well as the assessment of strict liability and/or joint and several liability.

We are subject to extensive environmental and safety regulation in the United States and Europe. Any failure to comply with current and future environmental and safety regulations could subject us to significant liabilities. In particular, any failure to control the discharge of hazardous materials and wastes could subject us to significant liabilities, which could adversely affect our business, results of operations or financial condition.

We and all our activities in the United States are subject to federal, state and local environmental and safety laws and regulations, including but not limited to, noise abatement and air emissions regulations, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, regulations issued and laws enforced by the labor and employment departments of the U.S. and the states in which we conduct business, by the U.S. Department of Commerce, the U.S. Environmental Protection Agency, and by state and local health and safety agencies. In Germany, we and all our activities are subject to various safety and environmental regulations of the federal state which are enforced by the local authorities, including the Federal Act on Emission Control (Bundesimmissionsschutzgesetz). The Federal Act on Emission Control permits are held by companies jointly owned by DYNAenergetics and the other companies that are located at the Würgendorf and Troisdorf manufacturing sites and are for an indefinite period of time. In France, we and all our activities are subject to state environmental and safety regulations established by various departments of

the French Government, including the Ministry of Labor, the Ministry of Ecology and the Ministry of Industry, and to local environmental and safety regulations and administrative procedures established by DRIRE (Direction Régionale de l'Industrie, de la Recherche et de l'Environnement) and the Préfecture des Pyrénées Orientales. In Sweden, we and all our activities are subject to various safety and environmental regulations, including those established by the Work Environment Authority of Sweden in its Work Environment Act. In addition, our shooting operations in Germany, France and Sweden may be particularly vulnerable to noise abatement regulations because these operations are primarily conducted outdoors. The Dillenburg facility is operated based on a mountain plan ("Bergplan"), which is a specific permit granted by the local mountain authority. This permit must be renewed every three years.

Changes in or compliance with environmental and safety laws and regulations could inhibit or interrupt our operations, or require modifications to our facilities. Any actual or alleged violations of environmental and safety laws could result in restrictions or prohibitions on our facilities, substantial civil or criminal sanctions, as well as the assessment of strict liability and/or joint and several liability under applicable law. Under certain environmental laws, we could be held responsible for all of the costs relating to any contamination at our or our predecessor's past or present facilities and at third party waste disposal sites. We could also be held liable for any and all consequences arising out of human exposure to hazardous substances or other environmental damage. Accordingly, environmental, health or safety matters may result in significant unanticipated costs or liabilities.

We are subject to extensive government regulation and failure to comply could subject us to future liabilities and could adversely affect our ability to conduct or to expand our business.

We are subject to extensive government regulation in the United States, Germany, France and Sweden, including guidelines and regulations for the safe manufacture, handling, transport and storage of explosives issued by the U.S. Bureau of Alcohol, Tobacco and Firearms; the Federal Motor Carrier Safety Regulations set forth by the U.S. Department of Transportation; the Safety Library Publications of the Institute of Makers of Explosive; and similar guidelines of their European counterparts. In Germany, the transport, storage and use of explosives is governed by a permit issued under the Explosives Act (Sprengstoffgesetz). In Sweden, our purchase, transport, storage and use of explosives is governed by a permit issued to us by the Police Authority of the County of Varmland. In France, the manufacture and transportation of explosives is subcontracted to a third party which is responsible for compliance with regulations established by various State and local governmental agencies concerning the handling and transportation of explosives.. Our French operations could be adversely affected if the third party does not comply with these regulations. We must comply with licensing and regulations for the purchase, transport, storage, manufacture, handling and use of explosives. In addition, while our shooting facilities in Würgendorf and Troisdorf, Germany, France and Sweden are located outdoors, our shooting facilities located in Pennsylvania and in Dillenburg, Germany are located in mines, which subjects us to certain regulations and oversight of governmental agencies that oversee mines.

We are also subject to extensive environmental and occupational safety regulation, as described below under "Liabilities under environmental and safety laws could result in restrictions or prohibitions on our facilities, substantial civil or criminal liabilities, as well as the assessment of strict liability and/or joint and several liability" and "The use of explosives subjects us to additional regulation, and any accidents or injuries could subject us to significant liabilities."

The export of certain products from the United States or from foreign subsidiaries of U.S. companies is restricted by U.S. and similar foreign export regulations. These regulations generally prevent the export of products that could be used by certain end users, such as those in the nuclear or biochemical industries. In addition, the use and handling of explosives may be subject to increased regulation due to heightened concerns about security and terrorism. Such regulations could restrict our

ability to access and use explosives and increase costs associated with the use of such explosives, which could have a material adverse effect on our business, financial condition, and results of operations.

Any failure to comply with current and future regulations in the U.S. and Europe could subject us to future liabilities. In addition, such regulations could restrict our ability to expand our facilities, construct new facilities, or compete in certain markets or could require us to incur other significant expenses in order to maintain compliance. Accordingly, our business, results of operations or financial condition could be adversely affected by our non-compliance with applicable regulations, by any significant limitations on our business as a result of our inability to com