

Royalty Rates For Technology

4th Edition

SAMPLE REPORT

IPRA, Inc.
Intellectual Property Research Associates

SAMPLE

License Transactions and Royalty Rates

AUTOMOTIVE

Battery/Hydride

Licensor: Energy Conversion Devices, Inc.
Licensee: Hyundai Motor Company, Ltd.
Royalty: \$3 million to \$5 million license fees and 0.5% to 3% of sales

Energy Conversion Devices, Inc. announced that its Ovonic Battery Company subsidiary has licensed technology related to a rechargeable nickel metal hydride battery to Hyundai Motor Company, Ltd. Ovonic granted the automaker a royalty-bearing, exclusive license to make and sell large hydride batteries in Korea. In addition, the company has granted the automaker a royalty-bearing non-exclusive license to make and sell large hydride batteries worldwide excluding North American and the USSR. Hyundai may sell automobiles, however, that incorporate these batteries in North America and the USSR. Hyundai announced that it plans to utilize Ovonic batteries in electric cars to be manufactured by 1995. The cars are expected to travel 220 miles per charge at a speed of 60 mph. Hyundai has agreed to pay Energy Conversion Devices a total of \$2.5 million over a period of time plus an undisclosed amount of running royalty on net sales. In addition, Hyundai has granted Energy Conversion Devices a royalty-free license for any improvements and modifications that Hyundai makes to the technology. Energy Conversion Devices also has a right of first refusal to supply hydride materials and electrodes for use in the manufacture of large hydride batteries by Hyundai.

Energy Conversion Devices is also working with a major US automotive company and is in the process of concluding additional agreements with companies in Europe. Non-exclusive consumer battery applications of the technology have also previously been granted to companies in the United States, Germany, Japan, Hong Kong, Korea, and the USSR. Energy Conversion Devices recently gained international acclaim by winning the Toyota Award for advancement. The award was presented for the company's proprietary Ovonic Hydride batteries for electric vehicles and was presented at the worldwide automotive ISATA conference in Florence, Italy. Energy Conversion Devices, Inc. is a pioneer in amorphous and synthetic materials technology. The company licenses technology and manufacturers and sells products in the field of energy, information and synthetic materials based on technology of the company and subsidiaries. Source: Licensing Economics Review, December 1991.

10K 2002 Update

Energy Conversion Devices, Inc. is a technology, product development and manufacturing company, founded by Stanford R. Ovshinsky and Iris M. Ovshinsky, engaged in the invention, engineering, development and commercialization of new materials, products and production technology. ECD develops Ovonic materials that permit the company to design and commercialize new products such as nickel metal hydride (NiMH) batteries, thin-film solar (photovoltaic) cell products and phase-change optical memory media. These products have unique chemical, electrical, mechanical or optical properties and superior performance characteristics.

ECD's royalty-bearing NiMH battery licenses have provided for upfront nonrefundable license fees of up to \$5 million paid to ECD at the time they enter into the license agreement, a license fee of \$3 to \$5 million, depending on factors such as geographical scope and fields of

application, and a royalty of 0.5% (for consumer applications) or 3.0% (for propulsion applications) of the selling price of NiMH batteries.

Licensees of NiMH batteries are granted nonexclusive, royalty-bearing licenses under ECD's consumer NiMH battery patents (and, in the case of certain licensees, ECD's battery technology) to make, have made, use, sell, lease or otherwise dispose of NiMH batteries. Certain licensees, particularly Chinese licensees, have paid modest upfront, nonrefundable license fees, but are required to pay royalty rates considerably higher than 0.5% or to pay additional license fees as their sales of NiMH batteries increase, or have been granted substantially narrower rights to geographical areas in which licensed products can be made or sold.

Brake, Clutch and Accelerator Pedal Technology

Licensor: Edmond B. Cicotte - Individual
Licensee: Williams Controls, Inc.
Royalty: \$600,000 license fee plus 3% of sales

Edmond B. Cicotte granted Williams Controls, Inc. and Proactive Acquisition Corporation exclusive rights to use technical information and know-how and to acquire licenses with respect to current and/or future designs, patents and applications for patents owned or developed by Cicotte on matters pertaining to the engineering, design, and manufacture of automotive brake, clutch and/or accelerator pedals and related technology. The license was signed during November 1998.

An initial down payment of \$600,000 was payable upon execution of the agreement. Williams and Proactive also agreed to maintain a \$25,000 trust account with Cicotte to pay the expenses associated with filing, prosecuting, and maintaining patent applications and patents. In addition, the licensees agreed to a minimum royalty of \$1,140,000.00 payable in twelve annual minimum royalty payments of \$95,000. In addition a running royalty rate of 3% of net sales is required of the licensees. Source: Form 10-K Williams Controls, Inc. 9/30/1999.

CONSTRUCTION

Pavement Texture

Licensor: Integrated Paving Concepts Inc.
Licensee: Aydogdu Insaat ve Ticaret Ltd. Stl.
Royalty: \$50,000 license fee plus 10% on sales

Integrated Paving Concepts Inc. has reached a five-year agreement with Aydogdu Insaat ve Ticaret Ltd. Stl. of Istanbul for the licensing of StreetPrint Pavement Texturing, and the distribution of StreetPrint tools and templates and StreetBond coatings in Turkey, North Cyprus, Azerbaijan, Uzbekistan, Turkmenistan, Kazakstan and Georgia. In a press release, Integrated Paving said the agreement calls for an initial licensing fee of \$50,000, minimum template purchases of \$400,000 in the first three years plus additional purchases in years four and five, as well as minimum purchases of \$2.95 million in surfacing products or 10% royalty payments over the five-year period. Within the scope of the renewable agreement, Aydogdu Insaat will try to sub-license the use of StreetPrint to qualified asphalt paving companies in these countries and

will seek initial license fees and royalties or product purchase commitments. Source: Licensing Economics Review, April 1997.

Plastic Lumber

Licensor: Polymerix, Inc.
Licensee: Energy Answers Corp. and On-line Management Associates, Inc.
Royalty: \$500,000 plus 5% on sales

A plastic lumber product called TriMax, developed by Polymerix, Incorporated has been licensed to a joint venture partnership that includes Energy Answers Corporation of Albany New York and On-line Management Associates, Inc. of Hauppauge New York. The agreement allows Energy Answers to construct and operate a Trimax lumber manufacturing facility in the state of Florida. The agreement also provides an opportunity for Energy Answers to obtain further licenses for the technology in other states. TriMax is a structural plastic lumber product intended to replace the pressure treated wood for outdoor applications. The product has structural characteristics that are equivalent to No. 2 rated pressure treated wood and has a useful life far exceeding that of pressure treated wood. Energy Answers Corporation is the developer and operator of Recycling and Resource Recovery Facilities. On-line Management Associates is a solid waste consulting company. The combination of these two companies should allow penetration of the market in which TriMax Lumber products are used. Currently, the primary use of the product is in marine construction and landscaping markets. The license agreement calls for Polymerix to receive initial license fee and royalty rate on gross sales of lumber products that are produced under the license. Source: Licensing Economics Review, December 1990.

Update

Polymerix Inc. signed a license agreement with Environmental Recovery Systems of Somerset, Mass., a unit of Environmental Recovery Systems. Polymerix said the agreement is for 20 years and the company will receive \$500,000 as a licensing fee and a 5% royalty payment over the 20 years. The agreement covers the production of Trimax plastic lumber products.

ELECTRICAL and ENERGY

Amorphous Metal Transformers

Licensor: AlliedSignal, Inc.
Licensee: Crompton Greaves Ltd.
Royalty: \$300,000 plus 1% to 2.5% of sales

Crompton Greaves Ltd. entered into a technical collaboration with AlliedSignal for manufacturing amorphous metal transformers (AMT) for use in India and for export. AMTs are more energy efficient than conventional transformers using silicon steel cores. They can reduce no-load losses up to 80 percent. No-load losses, which occur when voltage is applied to the transformer, represent a major portion of the energy lost during power distribution. These energy saving can significantly reduce or defer costly investments for power generation. Crompton agreed to pay AlliedSignal 1% of sales in the first year with the royalty increasing to 2.5% in the fifth year of the license. Source: FT Asia Intelligence Wire The Hindu February 5, 1999

Section: News, 2/5/1999.

Battery

Licensor: Tracor, Inc.
Licensee: Electrosorce, Inc.
Royalty: 4.5% on sales

Tracor, Inc. and its subsidiaries provide sophisticated electronic and information technology products, systems, and services to the Department of Defense ("DOD"), other US government agencies, foreign governments, and commercial customers. The company's business units operate in the US and foreign defense electronics, information technology, and systems engineering and integration markets. The company's products and services largely support high-priority DOD weapons, platforms, and systems, enabling defense customers to enhance the operational performance and readiness of existing systems and platforms, as well as extend their useful lives and survivability. Since August 1993, Tracor has made 12 acquisitions as part of its strategy to take advantage of a consolidating defense industry.

Coextrusion technology that is used in lead-acid batteries has been exclusively sublicensed to Electrosorce, Inc. The company will pay a 4% royalty to Tracor, Inc. for use of the technology in non-battery products subject to a \$10,000 annual minimum. Tracor holds an exclusive license on the patents. Electrosorce must also pay a 0.5% royalty to the patent holder subject to a \$100,00 annual minimum. Electrosorce, Inc. is an energy storage solutions company engaged in the manufacture of advanced lead-acid, rechargeable storage batteries and the development of related processes and technologies. The Horizon battery utilizes plate grids made from a patented coextruded wire and a special paste mixture. The company is focusing its efforts on development of Horizon battery technology for use in many applications including hybrid power vehicles, electric vehicles, neighborhood electric vehicles, electric scooters, lawn and garden tools, power management and starting power. Source: Licensing Economics Review, September 1990.

Cable Rehabilitation

Licensor: Dow Corning
Licensee: Utilex Corporation
Royalty: \$2 million fee plus 50% of pretax profits

Dow Corning built a new business based on silicon chemistry. Silicon is one of the most abundant elements in the world. Most of the company's products are based on polymers known as silicones which have a silicon-oxygen-silicon backbone. Through various chemical processes, the company manufactures silicones that have an extremely wide variety of characteristics, in forms ranging from fluids, gels, greases and elastomeric materials to resins and other rigid materials. Silicones combine the temperature and chemical resistance of glass and the versatility of plastics and, regardless of form or application, generally possess such qualities as electrical resistance, resistance to extreme temperatures, resistance to deterioration from aging, water repellency, lubricating characteristics, relative chemical and physiological inertness, and resistance to ultraviolet radiation. The company currently manufactures over 8,700 products and serves approximately 50,000 customers worldwide, with no single customer accounting for more than three percent of the company's sales in 1994.

Utilex Corporation and Dow Corning jointly announced the signing of a definitive agreement under which Utilex became the exclusive licensee of the Dow Corning Cablecure technology. The cablecure process uses a proprietary method to treat and restore failing underground electric cables. Under terms of the agreement, Utilex paid \$2 million in cash and will pay a royalty of 50% of the pretax profits for the sale of cablecure services. Utilex also issued warrants to Dow Corning to purchase up to 353,846 additional shares of its common stock at an exercise price of \$8.13 per share. The warrants will become exercisable if revenues from cablecure business reach certain milestones during the first eight years of the agreement. This agreement is unique because the running royalty payment is based on a split of profits rather than a percentage of revenues. This agreement adds another proprietary technology to the Cablecure repertoire' of skills for renovating underground utility infrastructure possessed by Utilex. The company provides services for the replacement and renovation of underground utilities in the United States and Canada through a network of regional sales and services centers. It also conducts operations in Europe and Asia through its wholly owned subsidiary in the UK and through business associates throughout Europe and Japan. Source: Licensing Economics Review, October 1991.

MEDICAL

Allergy Testing System

Licensor: BioWhittaker Inc.
Licensee: Pharmacia AB
Royalty: 3% on sales infringement settlement

BioWhittaker Inc. agreed with Pharmacia AB and certain affiliated companies to settle a lawsuit in which BioWhittaker claimed that Pharmacia infringed BioWhittaker's patents covering its diagnostic allergy testing system in the US. BioWhittaker said it granted Pharmacia a license to use its patents in the US, Canada and Australia. Pharmacia will pay 3% of all revenues it derives from the sale in those countries of fluorometric immunoassay products for allergen specific products using the patents, subject to a minimum of \$500,000 for 1995, payable in advance, and to a minimum of \$300,000 for each of the years 1996 through 1999. In addition to the advance payment for 1995, BioWhittaker said Pharmacia also agreed to pay \$3.5 million for past infringement, for a total cash payment upon settlement of \$4 million.. The US patent expires in 2006. Source: Licensing Economics Review, January 1995.

Ambulatory Infusion Products

Licensor: I-Flow Corp.
Licensee: SoloPak Pharmaceuticals Inc.
Royalty: 1.3 million plus 2% on sales

I-Flow Corp. sold the exclusive US marketing rights and license for its SideKick, Paragon and elite ambulatory infusion products to SoloPak Pharmaceuticals Inc. In a press release, I-Flow said it believes "the full value of this agreement with SoloPak will exceed \$8 million in operating earnings over the next three years." Under the agreement, I-Flow received \$1.3 million for the license and will receive guaranteed royalty payments of \$1 million per quarter during each of the three remaining quarters in 1996. The company also said it will receive a royalty equal to 2% of SoloPak's net sales of the products in 1997 and 1998 and the right of first

refusal on the manufacturing of all three products for SoloPak through March 1998. I-Flow retains the right to manufacture and sell the products outside the United States. Source: Licensing Economics Review, February 1996.

Antimicrobial Technology

Licensor: Daltex Medical Sciences, Inc.
Licensee: Arrow International, Inc.
Royalty: One time royalty of \$600,000

Daltex Medical Sciences, Inc. announced that it and Arrow International, Inc., a leading manufacturer and marketer of catheters and cardiovascular products and a licensee of Daltex, have executed a Modification To License Agreement, modifying certain terms of the license entered into by Daltex and Arrow in March 1991 (the "Arrow License") relating to exclusive, worldwide commercial development and marketing rights to patented and patent-pending antimicrobial technology, originally developed at Columbia University in New York and licensed to Daltex. Pursuant to the Modification To License Agreement dated October 27, 1995, Arrow has paid to Daltex a one time royalty of \$600,000 for the period August 31, 1995 through September 1, 2000, in lieu of a periodic royalty currently paid to Daltex pursuant to the Arrow License concerning one of the products (a multi-lumen central venous and arterial catheter with antiseptic surface) Arrow is currently marketing which incorporates the antimicrobial technology licensed to Arrow by Daltex. After September 1, 2000, these periodic royalty payments for this product will resume. All other terms and conditions of the Arrow License, except those terms modified by the previously announced Patent Settlement Agreement of January 1, 1995, remain in full force and effect. Additionally, the Modification To License Agreement does not modify or alter the terms of the Patent Settlement Agreement. Source: Licensing Economics Review, October 1995.

Birth Control

Licensor: Ovion, Inc.
Licensee: Conceptus, Inc.
Royalty: \$2 million plus 3.25% of sales over \$75 million

Conceptus, Inc. develops, manufactures and markets Essure, an innovative and proprietary non-incisional permanent birth control device for women which was approved for marketing in the United States in November 2002 by the United States Food and Drug Administration, or FDA. Essure is a soft and flexible micro-insert delivered into a woman's fallopian tubes designed to provide permanent birth control by causing a benign tissue in-growth that blocks the fallopian tubes. A successfully placed Essure micro-insert disrupts or prohibits the process of egg fertilization. Based on clinical trial data filed with the FDA in June 2004, Essure has been demonstrated to be 99.80% effective at three years of follow-up. As of January 2005, Conceptus had accumulated sufficient patient follow-up data from the Phase II and Pivotal clinical trials and have filed a PMA supplement for a four and five year effectiveness claim consistent with the three year claim.

The Essure placement procedure is typically performed as an outpatient procedure and is intended to be a less invasive and a less costly alternative to tubal ligation, the leading form of

birth control in the United States and worldwide. Laparoscopic tubal ligation and tubal ligation by laparotomy typically involve abdominal incisions and/or punctures, general or regional anesthesia, four to ten days of normal recovery time and the risks associated with an incisional procedure. The Essure placement procedure does not require cutting or penetrating the abdomen, which has lowered post-operative pain due to the incisions/punctures, and is typically performed in an outpatient setting without general anesthesia. In the Pivotal trial of Essure, the total procedure time averaged 35 minutes, with an average of 13 minutes of hysteroscopic time to place the Essure micro-insert. A patient is typically discharged approximately 45 minutes after the Essure placement procedure. No overnight hospital stay is required. Furthermore, Essure is effective without drugs or hormones.

Conceptus believes the company is free to make and sell its product, and that its product and intended use does not infringe any valid patent rights of any other party. However, a third party, Ovion, Inc., brought to the company's attention a patent and certain claims from a pending patent application owned by it. Ovion indicated it believes that the claims of its patent and application cover Essure and its use. On October 23, 2003, Conceptus entered into a settlement agreement with Ovion pursuant to which Conceptus received a sole, worldwide license to Ovion's patent rights relative to the Essure system, and Ovion may not grant any additional such licenses to other parties. The settlement agreement provided for the payment of a royalty to Ovion that will be equal to 3.25% of the cumulative net sales of Essure in excess of \$75.0 million for a period of no longer than ten years. In addition, the settlement agreement provided for a cash payment of \$2.0 million in the fourth quarter of 2003 as a prepaid royalty, and a license fee of \$2.0 million payable in our common stock in equal installments in the first and second quarters of 2004. Ovion was not granted any rights to Conceptus intellectual property pursuant to the settlement agreement. The settlement agreement was approved by the U.S. District Court for the Northern District of California on November 6, 2003. Source: Conceptus, Inc. 2004 10K.

Blood/Artificial

Licensors: DNX Biotherapeutics Inc. (seller)
Licensee: Transplant Acquisition Inc. (buyer)
Royalty: \$18 million plus 3% on sales

On October 16, 1995, DNX Biotherapeutics Inc., a wholly owned subsidiary of DNX Corp., completed the sale of DNX Biotherapeutics' 30% partnership interest in Nextran to Transplant Acquisition Inc., a wholly owned subsidiary of Baxter Healthcare Corp. Transplant Holdings Inc., a wholly owned subsidiary of Baxter, holds the other 70% partnership interest in Nextran. The purchase price of \$18 million was deposited in an escrow account, to be held until Baxter receives the necessary approvals required under the Hart-Scott-Rodino Antitrust Improvements Act. Following the receipt of the HSR approvals, the purchase price was released from escrow to DNX Biotherapeutics on October 16, 1995. The purchase price and terms were reached by arms-length negotiations among the parties. The company will keep its 3% royalty interest in Nextran's blood substitute technology. Source: DNX Biotherapeutics, Inc. 1995 8K.

Blood Clot Detection

Licensors: American Biogenetic Sciences Inc.
Licensee: F. Hoffmann-La Roche Ltd.
Royalty: 5% on sales

American Biogenetic Sciences, Inc. is a development stage company engaged in researching, developing and marketing cardiovascular and neurobiology products for commercial development and distributing vaccines. The company commenced selling its products during the last quarter of 1997, although it has not yet derived any significant revenues from the sale of these products.

The company's products are designed for in vitro and in vivo diagnostic procedures and therapeutic drugs. In vitro diagnostic procedures are those in which blood, urine or other bodily fluid or tissue is extracted from the body and diagnostic tests are performed in a test tube or other laboratory equipment. In vivo diagnostic procedures are those in which proteins or compounds are injected directly into the body or bloodstream to assess abnormal reactions or conditions. The company's therapeutic products have been identified for the treatment of epilepsy, migraine and mania, neurodegenerative diseases, coronary artery diseases and cancer.

Due to the company's present limited finances, the company has deferred its development efforts for its products, although development of the therapeutic neurocompounds is progressing with the company's collaborative partners, the company is continuing to sell its TpP diagnostic kit through its distributors and the company is continuing contract research work with its Antigen-Free Technology.

American Biogenetic Sciences Inc. entered a license and collaboration agreement with F. Hoffmann-La Roche Ltd. for the co-development and marketing of the company's Thrombus Precursor Protein (TpP) for the detection of active blood clot formation. Under the terms of the agreement, Hoffmann is granted a worldwide license to market the TpP test in the latex based particle agglutination format to Hoffman-La Roche's automated diagnostic systems. Based on achievement of some commercialization goals, the company will receive non-refundable milestone payments. The company will manufacture the TpP test for use with Hoffmann's instruments, and the company will receive a percentage of Hoffmann's net selling price for the company's manufacturing of the TpP test plus a 5% royalty on net sales made by Hoffmann. Both parties will also sell the test to other diagnostic companies using similar technology. On October 26, 1995, the company completed an \$8,500,000 private placement of convertible debentures. The debentures are payable on October 13, 1998. This 8-K Filing was submitted to the Securities and Exchange Commission on November 3, 1995.

ABS is a party to various agreements with universities and/or individual scientists who are part of the Global Scientific Network. These agreements generally grant the company an exclusive license to the results of the research for use in various neuroscience applications, which may include compounds and antibodies. In general, the agreements are for a term equal to the duration of any patents that may be granted, with a minimum term of 10 years. In exchange for a license, ABS is obligated to pay certain research expenses and the costs of filing and processing patent applications in the United States and any other countries that ABS may select. Pursuant to these agreements, ABS is also required to pay the inventors or the university a royalty, typically 5% of net product sales. The company is seeking to commercialize the products under development by entering into collaborative arrangements, licensing agreements and/or through research and development partners.

Vascular Closure Device

Licensor: Kensey Nash Corporation
Licensee: St. Jude Medical, Inc.
Royalty: 6% on net sales

Kensey Nash Corporation (KNC) is a medical technology company providing innovative solutions and technologies for a wide range of medical procedures. KNC has expanded well beyond its beginnings in vascular puncture closure and today provides an extensive range of

products into multiple medical markets, primarily in the cardiovascular, sports medicine and spine markets. As the inventor of the Angio-Seal™ Vascular Closure Device (Angio-Seal), a device designed to seal and close femoral artery punctures made during diagnostic and therapeutic cardiovascular catheterizations. KNC was the first company to place an absorbable biomaterial device into the human vascular system. As pioneers in this field of absorbable biomaterials, KNC developed significant expertise in the design, development, manufacture and processing of absorbable biomaterials for medical applications.

KNC's initial success was with the Angio-Seal, which was invented and developed and subsequently licensed. St. Jude Medical, Inc. acquired the worldwide license to the Angio-Seal device in March of 1999. St. Jude Medical has the worldwide exclusive rights for the development, manufacturing and sales and marketing of the Angio-Seal. The Angio-Seal was commercialized in the U.S. in 1996 and is currently the leading product in the vascular closure device market with end-user product sales by St. Jude Medical of \$304 million in the company's fiscal 2005, up 21% from \$251 million in fiscal 2004. The vascular puncture closure market is estimated to have a potential \$1 billion annual worldwide market with current penetration of approximately 45% to 50%.

KNC receives a 6% royalty on all end-user Angio-Seal sales. In addition, KNC exclusively manufactures one of the key absorbable components of the Angio-Seal, the collagen plug and also manufacture a minimum of 30% of the polymer anchors, for St. Jude Medical under a new supply agreement that expires in 2010.

The royalty on the Angio-Seal decreased to 6% from 9%, as specified in the license agreement, in April 2004 upon the achievement of four million cumulative Angio-Seal units sold. Royalties and the sales of components contributed \$18.5 million and \$15.8 million of KNC's total royalty income and net sales lines, respectively, for fiscal 2005, or a total of \$34.3 million of the company's total revenues. Kensey Nash's Angio-Seal licensing agreement with St. Jude Medical continues for the life of the most recently issued Angio-Seal applicable patent, which was issued in July 2000 with an expiration date in 2017. Source: Kensey Nash Corporation 2005 10K.

SPORTS

Exercise Equipment - Treadclimber

Licensor: Individual Inventor
Licensee: Nautilus, Inc.
Royalty: 3% on sales

Nautilus, Inc. is a leading marketer, developer and manufacturer of branded health and fitness products sold under such well-known brand names as Nautilus, Bowflex, Schwinn, StairMaster, Trimline and Pearl Izumi. Products are distributed through diversified direct, retail and commercial sales channels, both domestically and internationally. Nautilus markets and sell a variety of branded products that are targeted at specific locations where people shop or exercise. Nautilus, StairMaster and Pearl Izumi brands are most commonly marketed through the commercial and high-end specialty retail markets, while the Bowflex and Schwinn branded products are marketed primarily through the retail and direct channels. Nautilus product marketing includes direct response marketing utilizing a combination of television commercials, infomercials, response mailings, the Internet, catalog, and inbound/outbound call centers. It also includes a sales force and dealer network marketing to retail organizations, health clubs, government agencies, hotels, corporate fitness centers, colleges, universities and assisted living

facilities worldwide. Founded in 1986, the company has grown to over \$630 million in annual sales through a combination of internal growth of its Bowflex brand and a series of strategic acquisitions of strong brands, including Nautilus International, Inc. in January 1999, the fitness division of Schwinn/GT Corp. and its affiliates in September 2001, StairMaster Sports/Medical, Inc. in February 2002, and DashAmerica, Inc. d/b/a Pearl Izumi USA in July 2005. As a result of these acquisitions, the company expanded its portfolio of leading brands, product lines, channels of distribution, product development capabilities and the size of the company's customer base. Nautilus now offers a specialized line of fitness apparel in retail channels and a comprehensive line of cardiovascular and strength, or weight resistance, products in the direct, retail and commercial fitness channels both domestically and internationally.

The company's cardiovascular and strength product lines reflect a complete assortment of high-quality fitness equipment. The Nautilus brand includes four distinct lines of strength equipment, plus free weights and benches, and both upright and recumbent exercise cycles. During 2004 and 2005, the company developed a line of Nautilus cardiovascular equipment, including new ellipticals and treadmills, and began development of a commercial version of its popular TreadClimber cardio machine. During 2005, Nautilus continued to invest heavily in product development and introduced approximately 22 new products, including the next generation of the popular Bowflex TreadClimber cardio trainer, the Bowflex Revolution home gym, and Bowflex SelectTech dumbbells, specifically for women and teens. The StairMaster brand is best known for steppers and stepmills designed for excellent lower-body and cardiovascular workouts, but also includes treadmills and ellipticals. The Bowflex brand has been expanded to represent a complete line of fitness equipment, both strength and cardio, including multiple models of home gyms, plus strength cages, free weights, SelectTech dumbbells, benches, TreadClimbers and treadmills. The Schwinn Fitness brand includes a popular line for indoor cycling, along with upright and recumbent exercise bikes, treadmills and ellipticals. The fitness apparel line is composed of high-end performance apparel and footwear targeted to consumers who are fitness and outdoor enthusiasts, especially for those interested in cycling and running activities. This apparel line is composed almost entirely of Pearl Izumi branded wear. Pearl Izumi is best known for its innovative and technically superior cycling apparel and has been expanded into the running apparel and footwear markets.

Nautilus is obligated to pay royalties, at the rate of 3% of TreadClimber sales, to the inventor of the main patent on the TreadClimber until this patent expires on December 13, 2013. Spurge: Nautilus, Inc. 2005 10K.

In-line Skates

Licensor: Scott Olson – Individual Inventor
Licensee: Roller Blades Inc.
Royalty: 1% on sales

Approximately 19 million in-line skaters roll along America's roads these days, with nearly 4 million playing roller hockey in local leagues and pickup games. The trend has grown to such an extent that some municipalities are considering laws to confine the avenues and times on which skaters can roll. American Sports Data reported that in-line skating grew by 50 percent in 1994 alone, Will Bourne wrote in an article in Esquire, and accounted for about \$650 million in retail sales. "In-line" is the brand neutral term for the sport in which the skate's wheels - usually four or five - are arranged in a line from toe to heel rather than in pairs, as on conventional roller skates. That configuration, plus the fact that the wheels are narrower, translates into a faster, more controlled and relatively frictionless ride. The in-line skate began life in a basement outside Minneapolis in 1979, where Scott Olson developed a crude version called the Super Street Skate.

Looking to market an improved model to hockey players in the off-season, he and his brother began perfecting the design, adding dual ball bearings and the molded ankle support of a ski boot.

Rollerblades, as they were called, went big, but without Olson. By the mid-1980s Olson faced bankruptcy. He signed over 95 percent of the company stock and 100 percent of his voting stock for \$100,000. Rollerblade now boasts about 40 percent share of the market. At last report Olson was selling plastic lawn penguins. He also settled a six-year legal battle with Rollerblade for a 1% royalty until 1997 - worth about \$10 million. Source: Licensing Economics Review July 1995.

Recreational Sonar Equipment

Licensor: Computrol, Inc.
Licensee: Lowrance Electronics, Inc.
Royalty: 10% on sales

Lowrance Electronics, Inc. is the world leader in the design, manufacture, and sales of sportfishing sonar (also known as fish finders or depth finders) and global positioning systems (GPS/Mapping). The company commands almost 50% of the total worldwide annual unit sales of sportfishing sonar through dual-brand marketing of its "Lowrance" and "Eagle" trade names. In support of those two brands, the company also markets a complete line of related accessories (200 kHz single and 50/200 kHz dual-frequency transducers, temp/speed/distance sensors, mounting systems, GPS+WAAS receiver/antennas, detailed CD-ROM mapping software, SONAR/GPS computer interfaces, rewritable Multi-Media Cards (MMC) and Secure Digital (SD) cards, MMC/SD card readers, along with a variety of cables/connectors, etc.).

The company's SONAR instruments are used primarily by sports fishermen to: detect underwater structure, thermoclines, schools of baitfish, and individual game fish; determine bottom depth as well as bottom composition/hardness; and display water surface temperature, trolling speed and distance traveled readings. Fishermen and boaters also utilize the company's SONAR products as critical navigational and safety devices for determining bottom depth in lakes, rivers, coastal and offshore waters. The company's 12-parallel channel GPS+WAAS receiver/antennas offer consumers faster satellite lock-ons and more accurate GPS navigation, fully enabled for user-selectable reception of the Federal Aviation Administration's Wide Area Augmentation System (WAAS) satellite signals which provide enhanced positional accuracy to 10 feet or less in select areas of the USA. Whether using the built-in custom background map, or the company's exclusive MapCreate™ CD-ROM detailed mapping software, or compatible Navionics® XL and HotMaps™ digitized electronic mapping charts, fishermen and boaters can determine precisely where they are relative to landmarks on the maps, then see exactly what is under their boats as well. Several products offer combined SONAR/GPS+WAAS mapping capabilities; others provide stand-alone SONAR or GPS+WAAS capabilities. Some models are gimbal-mounted in brackets; some can be panel-mounted in a console; and others are hand-held products. The GPS navigational receivers can be used in a variety of marine and non-marine applications, such as fishing, boating, hunting, camping/backpacking, RV/off-road vehicles, aviation and automobile navigation. The company's SONAR and GPS products are marketed primarily through retail outlets, mail-order catalogs, mass merchants, wholesale distributors, dealers and original equipment boat manufacturers (OEMs), in all fifty states and in forty-seven foreign countries.

Lowrance Electronics, Inc. announced that it has entered into a settlement agreement with Computrol, Inc., resolving a patent infringement lawsuit filed against the company in 1993 in Boise, Idaho. The settlement agreement calls for four payments commencing on January 10th and ending on June 30, 1995 totaling \$1 million in exchange for a mutual release and settlement of

the lawsuit. Lowrance also entered into a license agreement with Computrol and paid a one-time license fee of \$100,000.

The license agreement allows the company to use Computrol's '912 Patent on any new side-scanning product or the company's ScanPac, which Lowrance voluntarily ceased selling in October of 1994 as an accessory item after Lowrance introduced its improved scanning device, the BroadView, in September, 1994. Additionally, the License Agreement allows Lowrance to introduce a hand held sonar unit housed in a single integrated housing using Computrol's patent for a royalty payment of 10%, should the company elect to introduce such a product in the future. Lowrance Electronics, Inc. produces the BroadView sonar designed to allow the sports fisherman to see contours on both sides of the boat. Source: Licensing Economics Review, January 1994.

Lowrance Electronics, Inc. manufactures and markets sonar equipment and Global Positioning System (GPS) navigation receivers, plotters and mapping products for sport fishing, boating, and other recreational markets.

WASTE TREATMENT

Aluminum Can Recycling

Licensors: Cash Can Inc.
Licensee: Pacific Atlantic Group Inc.
Royalty: 10% on sales

Cash Can Inc. is engaged in recycling and promotional marketing activities on a local, regional, national and intends eventually to do so at the international level. The company's strategy is to bring quality products and services to the marketplace to provide consumers, merchants, manufacturers, and investors alike an opportunity to become involved in the recycling industry.

The Cash Can automated aluminum redemption center, The Cash Can, is a patented device, and the company's first product. Currently there are Cash Can units operating in the states of Georgia, Texas, Minnesota, Missouri and Florida, and the countries of Venezuela and Argentina. The company retains a contract manufacturer, Alcat Inc., based in El Campo, Texas, to produce units.

The Cash Can is a large cylinder approximately 14 feet tall and eight feet in diameter, shaped and painted like a soft drink beverage can. The company charges an advertising fee for displaying graphic brand depiction on each unit. The Cash Can accepts aluminum used beverage containers from consumers, and returns cash based on the going exchange rate. The Cash Can may also be programmed to dispense coupons, tokens and other promotional items.

Cash Can Inc. signed a licensing agreement for its patented collection unit with Pacific Atlantic Group Inc. of Argentina. Cash Can is engaged in recycling aluminum cans. In a press release, Cash Can said the first order is for 100 units, of which Cash Can will receive \$3,000 a unit as a licensing fee plus 10% in royalties of the revenues generated by the cans. Cash Can said Pacific Atlantic Group will form a joint venture with GEO Can of Buenos Aires in manufacturing and placing the cans in Argentina. The joint venture is working with Metrovias, the train transport system for Buenos Aires, in establishing locations for collection units at some of Metrovias's stations. The joint venture and Metrovias expect to place an additional 40 units by year-end. Source: Cash Can, Inc. 1996 10KSB.

Ammonia Recovery Process

Licensor: Battelle Memorial Institute
Licensee: Thermoenergy Corporation
Royalty: 5% of sales

Thermoenergy Corporation is an infrastructure technologies company engaged in the development and sales of advanced wastewater treatment and clean energy technologies. The company's current wastewater treatment technologies include: (1) the ThermoFuel process, a renewable energy process that converts sewage sludge, or "biosolids" into a high-energy solid fuel, (2) the Enhanced Biogas Production process, and (3) the Ammonia Recovery Process (ARP), that converts the nitrogen (ammonia) found in wastewater plants to ammonium sulfate, a commercial grade fertilizer utilized by agriculture worldwide. These three technologies are primarily aimed at solving wastewater problems for broad-based municipal, industrial and agricultural markets and are collectively referred to as the "Water Technologies." In addition, the company recently entered into a Technology Cooperative Agreement with Castion Corporation to license from Castion Corporation its R-Cast system for the removal of ammonia.

The Ammonia Recovery Process, or ARP technology, is a non-thermal, absorption process which captures ammonia from dilute waste streams, converting it into ammonium sulfate which can be packed and sold to agriculture markets worldwide. The ARP technology was proven in technology demonstration projects in conjunction with the Civil Engineering Research Foundation (CERF) and the City of New York in 1998, and during the EPA-sponsored demonstration at Colton, CA in 2000. The company recently signed its first commercial contract for a 500,000 gallon per day ARP system for New York City's Bowery Bay Wastewater Treatment Plant. That project is currently underway, with construction of the plant expected to be completed by the end of 2006. This project is the first large-scale stand alone project ever implemented by the City of New York designed to prevent excess ammonia from flowing into the Long Island Sound.

ARP is a patented process designed to recover ammonia from dilute aqueous waste streams. In tests, ARP has been a reliable, low-cost, environmentally effective method of treating wastewater discharge stream containing nitrogen in the form of ammonia. The ARP extracts ammonia out of sewage treatment liquid and livestock waste via chemisorption and converts it into standard, commercial-grade, ammonium sulfate fertilizer. The company is targeting ammonia recovery from aqueous streams, such as the liquid product resulting from centrifuging anaerobically digested sewage sludge or animal waste. This stream, known as the "centrate" contains approximately 600 to 1,600 parts-per-million dilute ammonia. In advanced wastewater treatment plants where nitrogen is nitrified and denitrified, a portion of the nitrogen in the treatment plant is converted into nitrogen gas. Such plants generate primary and waste activated sludges which are typically treated with anaerobic digestion and then dewatered. In the anaerobic digestion process, more than half of the nitrogen in organic nitrogen compounds is converted into ammonia.

Once the anaerobically digested sludge is dewatered, the bulk of the organically bound nitrogen stays with the sludge solids while virtually all of the ammonia nitrogen stays with the water portion or centrate. This centrate is typically recycled to the front of the waste water treatment plant. ARP treats the centrate as a relatively concentrated ammonia stream, and returns a very low ammonia stream to the plant. This reduction in the nitrogen load on the plant can increase the overall plant through-put by up to 30%. The removed and concentrated ammonia can thereafter be converted into ammonium sulfate, a commercial grade fertilizer. The primary markets for ARP are municipal wastewater treatment and in the treatment of wastewater discharge from large concentrated animal farming operations, including dairy, pork, beef and

poultry facilities. A second ARP patent that incorporates incremental process changes as a result of the two ARP field demonstration projects is currently pending.

The company currently licenses the ARP technology from BMI. Under the terms of the agreement, dated December 30, 1997, as amended, the company agrees to pay to BMI the greater of 5% of revenues received from customers using the technology or \$1.00 per 1,000 U.S. gallons processed by the invention. However, if the company enters into a contract under which it or its sublicensee will design, build, own or operate a facility licensed under the agreement, the company will pay to BMI, subject to certain adjustments, a lump sum of 5% of the cost of the installed equipment at the time of commissioning the facility. The agreement also provides that the company will pay continuing royalties to BMI at a rate of 1.5% of all revenues, excluding certain amortization, received from the customers for such operation; however not less than \$0.02 (two cents) per pound of ammonia recovered in the operation. BMI may terminate the agreement with respect to a particular licensed territory if the company has not made sufficient sales to generate royalties to BMI of at least \$25,000 per year in that particular territory. The company has not generated such sales figures to date. The agreement expires upon the expiration of the patents for ARP technology, or at the discretion of BMI, if a contract is not in place to build a commercial facility to practice the ARP Technology within three years of the date of the agreement. No such facility has been contracted to date. Source: Thermoenergy Corporation 2005 10KSB.

Oil Process

Licensors: Interline Resources Corp.
Licensee: Whelan Environmental Services, Ltd.
Royalty: 6 cents per gallon

Interline Resources Corp. has formed a joint venture company with Whelan Environmental Services, Ltd. of Birmingham, England, to construct a \$2.2 million used oil re-refinery in Stoke, England. The used oil re-refinery, with a capacity to process 24,000 gallons of used oil per day, will be the first re-refinery in the United Kingdom. Interline will own 40 percent of the joint venture, called Interline UK, Ltd., and Interline will receive a royalty of 6 cents in US currency per gallon of used oil processed by the re-refinery. The joint venture will sell the processed used oil as a lubricating base oil or for other uses. Interline's construction division, Gagon Mechanical, will build the re-refinery at its Sandy, Utah, location and supervise installation of the plant at the site in Stoke. Whelan will contribute \$750,000 to the joint venture and has already commenced site improvements at Stoke. Construction on the re-refinery will begin as soon as lender financing is received. The targeted completion date is August 1995. The joint venture company has also been appointed as Interline's marketing agent in the Netherlands, Belgium, Portugal and Spain. As marketing agent, the joint venture will pursue licensing agreements for Interline with companies in these countries. The agreement includes the construction of one re-refinery, but leaves open the possibility of building additional plants in the United Kingdom. Interline licenses a proprietary technology for used oil re-refining and for cleaning contaminated hydrocarbons. Besides the end product of a lubricating base oil, the finished product can be sold as a diesel extender and a clean-burning industrial fuel, and the by-products from the Interline re-refineries are environmentally safe. The first re-refinery utilizing this technology is being constructed in Dubai. The oil re-refining division of Interline has previously signed exclusive licensing agreements with Western India Group for ten Middle Eastern and Far Eastern countries, and with Quaker State Resources for the United States, Canada and Mexico. Source: Licensing Economics Review January 1995.

Oil Sludge Remediation

Licensor: Honeywell, International Inc.
Licensee: Itec Environmental Group, Inc.
Royalty: \$50,000 license fee plus 5% of US sales and 3% of sales outside US

Itec Environmental Group, Inc., licensed a patented system from Honeywell, International Inc. which initially was intended merely to be used to recycle used oil containers and recapture the residual oil for recycling. Itecs initial plan was to commercialize the Honeywell invention and develop the equipment necessary to utilize the system and sell equipment. However, once the system was developed and business models were completed, Itec realized that the largest profit ratios would be obtained through building and operating Itec plants and producing and selling the PET flake/pellets and post-consumer HDPE natural flake/pellets. Itec worked in collaboration with Honeywell and several engineering companies with expertise in the fields of CO₂ and solvents to develop the system. During the process of engineering, designing and building the equipment, Itec developed and improved the system to recycle not only oil containers but also plastic of all types, including plastic with harmful contaminants. As a result of this development of the system technology, Itec was able to approach Honeywell and suggest collaboration on the filing of a new patent that expands the scope of the system to include the improved method to recycle most types of plastic without the use of water. This system has demonstrated its ability to remove all contaminants, dirt, labels and odors from each type of recyclable plastics that was tested. The systems process produces the highest value clean, marketable plastic flakes, which are used as raw materials to create new plastic products.

Itec has developed a unique and revolutionary patent pending process, the Eco2™ Environmental System (the System) that cleans post-consumer plastics without the use of water, at a cost savings of 30% to 40%. The System is licensed from Honeywell FM&T and the Department of Energy exclusively to Itec for the life of the patent. Further, over the past five years, \$8.5 million has been invested in the development of the technology and equipment comprising the System, including building several scaled up versions of prototype plants, testing the prototypes, building a pilot plant, evaluating the product produced by the prototype systems and real-time testing over the past three years. Itecs goal is to build and operate Plastic Recycling plants throughout the USA in which the System can be used and, secondly, to sell the Systems worldwide to third parties.

In August 2004, the State of California Integrated Waste Management Board (CIWMB), through the Recycle Market Development Zone Loan (RMDZ) Program, approved a \$2 million matching funds loan to be used to build a plant in California. To qualify for the loan the company leased a 58,000 square foot building in Riverbank, CA with a five year lease that includes a five year additional extension. The company is seeking to raise \$11.5 million to expand its operations through the creation of two new facilities in California. The plants will be used by Itec to implement the System. Assuming Itec is able to raise the working capital needed for production of the plants, Itec expects the first Itec plant to be strategically located in Riverbank, where the company has leased a 58,000 square foot building between the San Francisco Bay Area and the greater Sacramento Metropolitan Area. Strategically locating one of Itec plants in between the Bay Area and the Sacramento Metropolitan Area will allow Itec to provide convenient access for clients, potentially serving over 10 million residential customers. Itecs initial plans for its second plant are to locate the facility in the Greater Los Angeles Basin, home to over 18.5 million people. Itec's research indicates the Greater Los Angeles Basin generates an enormous amount of plastic containers. In fact, a strong case can be made for locating a third Itec facility in San Diego County, which has both a significant population and continuing growth.

The company has secured a supply of raw material from the major collector of the post consumer used beverage containers in California as well as from several independent sources. The Plastic Recycling Corp. of California (PRCC) has committed to make available to Itec up to 100 million pounds of material per year. Itec's first plant will be capable of producing up to 44 million pounds per year. Indeed, once Itec obtains the working capital necessary to build its first plant, it will be well positioned to produce and sell a large quantity of its PET and HDPE flake. Itec recently entered into a three-year Agency Agreement with H. Muehlstein & Co., Inc., pursuant to which H. Muehlstein will act as Itec's exclusive agent for the purchase and sale annually of up to 60 million pounds of Itec's PET flake and post-consumer HDPE natural flake and pellets in the United States and Canada. Gary De Laurentiis, President & CEO of Itec, has worked with H. Muehlstein & Co. for over 12 years. H. Muehlstein brings tremendous value to their clients and has an excellent reputation within the industry. H. Muehlstein & Co. will act as Itecs sales force, representing Itecs products within the US and Canada.

Effective June 30, 2000, the company entered into a five-year patent license agreement with Honeywell International, Inc., whereby the company obtained a non-exclusive, nontransferable worldwide license to practice the methods and to make, use, and sell, the products which are covered by the proprietary rights, limited to the field of use of separating and recovering motor oil from high density polyethylene plastic. Under the terms of the agreement, Itec agreed to pay a \$50,000 non-refundable initial license fee and an additional minimum annual royalty commencing upon delivery of the first equipment to an Itec customer, of the greater of \$50,000 or 5% of the gross sales of all products and or services sold in the United States and 3% of the products and or services sold in countries other than the United States. Source: Itec Environmental Group, Inc. 10KSB 2004.

Oil Sludge Remediation

Licensor: Imperial Petroleum Recovery Corp.
Licensee: Saudi Imperial
Royalty: \$2.5 million license fee plus \$2 million in future royalties

Imperial Petroleum Recovery Corp. said it has received an initial payment and reached an agreement in principle for the company's first territorial license for its MST-4000 crude oil sludge remediation system. According to the terms of the agreement, Imperial's licensee, Saudi Imperial, will have exclusive rights to market and operate Imperial's proprietary microwave technology within Saudi Arabia. The agreement includes one MST-4000 system and is worth at least \$20 million to Imperial over five years in license fees and royalties. Imperial estimates that an additional seven systems will be required to meet Saudi requirements over the next five years. At \$2.5 million per system, this would produce an additional \$17.5 million in lease fees. In addition to its lease price, each system is expected to generate another \$2 million in royalties to Imperial each year. Source: Licensing Economics Review April 1996.

Tire Recycling

Licensor: Tirez America Inc.
Licensee: Ocean/Ventures III
Royalty: 2% on sales

Tirez America Inc. and Ocean/Ventures III reached a new agreement under which Ocean Ventures will lease, rather than buy, eight of Tirez's cryogenic tire disintegration machines. In a press release, Tirez said that under the new pact Ocean/Ventures will lease eight of its TCS-1

machines for initial, renewable five-year terms, with lease payments over the five-year terms totaling \$1.75 million for each TCS-1 system.

The original agreement was for Ocean/Ventures, a unit of New Jersey solid waste recycling company Ocean County Recycling Center Inc., to buy eight machines for \$14 million, or \$1.75 million each. The new pact doesn't change the royalty provision of the old pact. Tirex will still receive a 2% royalty on revenues from the sale of by-products of the tire disintegration process.

Tirex said Ocean County Recycling has paid it a \$65,000 security deposit on the first system, which Tirex expects to deliver in about one year. In connection with the new agreement, Ocean/Ventures gave Tirex a maintenance contract valued at \$240,000 per machine over the initial term of each of the eight leases. Ocean/Ventures also made loan commitments to Tirex for an added \$35,000, \$10,000 of which Tirex has already received. Those loans will convert automatically to equity investments in Tirex when "certain development milestones" are met, Tirex said. Source: Licensing Economics Review September 1995.

May 1996 Update

Tirex America Inc. announced that it has received the second \$25,000 payment under its purchase agreement with Ocean/Ventures III Inc. of Toms River, New Jersey. Ocean/Ventures III is under common ownership and control with the solid waste recycling firm, Ocean County Recycling Center Inc. Under the terms of the agreement, Ocean/Ventures III will purchase, on or before August 31, 1997, eight Tirex TCS-1 Cryogenic Tire Disintegration Systems ("TSC-1 Systems") at a price of \$1.75 million each, for an aggregate purchase price of \$14 million. With payment of this second installment, Ocean/Ventures III has paid \$50,000 of a \$200,000 contract deposit, full payment of which is due on or before July 31, 1995. The \$200,000 deposit will be applied toward the prices of the first four systems purchased.

TCS-1 Systems are intended to be used to break down waste tires into their recyclable component materials of rubber crumb, steel, and nylon cord which can be sold for multiple uses in many products and industry applications. Ocean/Ventures has agreed to pay Tirex America Inc. a 2% royalty on revenues from the sale of all by-products of the tire disintegration process. Tirex, which is currently finalizing arrangements for the completion of the first production model of the TCS-1 System, has also granted Ocean/Ventures III an option to purchase an additional sixteen.

Tire Recycling

Licensor: Titan Technologies, Inc.
Licensee: United States Recycling LLC
Royalty: \$1 million license fee plus \$4 per ton of processed tires

Titan Technologies and United States Recycling entered into a licensing agreement that will allow United States Recycling to build the first U.S. plant using Titan's tire recycling technology. Under the terms of the agreement, Titan will be paid \$10,000 per month for six months, beginning on signing of the agreements, which will be credited towards a total license fee of \$1,000,000 payable as follows: \$190,000 upon completion of financing, \$175,000 upon commencement of construction, \$175,000 upon plant commissioning and \$400,000, payable \$100,000 every six months following commencement of positive cash flow. After achieving positive cash flow, Titan will also be paid a production royalty of \$4.00 per ton of tires processed. The agreement is exclusive to and covering Texas, Austria and Brazil. If USR completes the financing and the first plant is under construction by January 31, 2004, they have the right to obtain additional licenses for plants under similar terms. The estimated plant capacity of the first

plant is 100-135 tons of tires per day. A plant processing a hundred tons of tires per day will produce 80,000 barrels of oil, 3,300 tons of scrap steel and 8,000 tons of carbon black each year.

Titan Technologies Inc. is focused on developing recycling technology for tires, electronic scrap and components of automobiles. The recycling of tires using Titan's technology results in the production of oil, scrap steel and carbon black.

United States Recycling LLC is a privately owned company based in Florida. Source: Licensing Economics Review, February 2003.

Tire Incinerator

Licensors: Sanyo Kogyo Kabushiki Gaisha and Ever Green Planet Corporation

Licensee: Amanasu Environment Corporation

Royalty: Cash, common stock and 2% of sales

Amanasu Environment Corporation is a development stage that has acquired the exclusive, worldwide license rights to a high temperature furnace, a hot water boiler, and ring-tube desalination methodology. The tire incinerator is described below.

The technology known as the Fire Bird Boiler is a dual purpose process which incinerates waste tires and creates a source of heat generation. During 1998, the inventor of the technology constructed two proto-types of the boiler. The licensor currently operates one of the units in Ishinomaki, Japan. The operating boiler has a 5 ton/day capacity, although its capacity is not fully utilized, and the heat by-product is used by a greenhouse to maintain a steady temperature 25 degrees C. The company will be focusing on promoting the technology and opening the market to green house sector for the particular use.

The Fire Bird Boiler technology is a patented process which incinerates whole waste tires in a non polluting manner emitting heat or steam in the incineration process. The technology provides for combustion efficiency and seeks to minimize dioxin generation which is generally a by-product of imperfect combustion.

The boiler is comprised of a "combustion room" for combusting, a "water jacket" for protecting and cooling metals in the combustion room, and an "air layer" for insulating the heat radiation. The combustion chamber is circular, with a power forced ventilation device which accelerates a more efficient combustion, and hot steam is introduced at the burn point which increases the oxygen capacity creating the high burning temperatures in the combustion chamber. During the incineration process, temperature can reach as high as 1,000 degrees C. In other boiler or incineration technologies, reaching temperatures of 1,000 degrees C or more generally takes 4 hours to prevent any internal damage caused by a rapid rise in temperature. However, due to the heat protection attributes of the water jacket, the boiler can reach 1,000 degrees C in approximately two minutes without causing damage to any of the internal components of the boiler. The high temperatures enable the waste tire to be incinerated with minimal waste, odor, and gas dioxins. Prior technologies have required that waste tire be pulverized prior to incineration. This process is designed to accept whole waste tires through a conveyor and sensor which manages the condition of the combustion operation calculating the number of tires delivered, the timing of the dumping along with the condition of water supply temperature, quantities of hot water, and heater temperature. The unit has a combustion capacity of 100 kilograms per hour, and can generate 932,000 kcal per hour. The company believes that the operating costs of the boiler are minimal due to the fact that the fuel source is the waste tires.

Effective September 30, 2002, the company obtained the exclusive, worldwide license to a hot water boiler technology that incinerates waste tires in a safe and non-polluting manner and extracts heat energy from the incineration process. The rights were obtained pursuant to a license agreement with Sanyo Kogyo Kabushiki Gaisha and Ever Green Planet Corporation, both Japanese companies, for a period of 30 years. As consideration for this acquisition, the company paid the licensors \$250,000, of which the company's President paid \$95,000, issued to them

Royalty Rates for Technology – 4th Edition

600,000 shares of common stock, and issued to an affiliate of the licensors 50,000 shares of common stock. The licensors are entitled to receive a 2% royalty on the gross receipts from the sale of the products related to the technology. If the company fails to comply with any provision of the agreement after a 90-day notice period, the licensor may terminate the agreement. Source: Amanasu Environment Corporation 2005 10KSB.