



# ENERGY INTERNATIONAL QUARTERLY

JULY 2010

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## Letter from the Executive VP • Rami Fawaz

Welcome to the inaugural issue of the Energy International Quarterly. Our newsletter is designed to keep you informed on the latest news and happenings coming from EIC. The Energy International Quarterly will provide information on the latest major construction projects in the region and how we are making them better. We'll keep you up-to-date on new additions to our growing roster of satellite offices and additions to our engineering and support staff. We will use this forum to share with you our best practices and inform you of the latest products and innovative technologies from our representative companies.

For more than thirty years, EIC has played an integral part in the growth of the Middle Eastern marketplace, and we continue to provide the best in products and services to our clients and customers.

The recent changes in the world economy have created many interesting challenges. We are living in a business world where only the strong and smart will survive. Our continued growth, even in the current business climate, is a testament to the core values that EIC is built upon. As always, EIC will continue to strive to be the go-to supplier for expert engineering, top-quality products and excellent service. Please join with us on this magnificent journey.



**Rami Fawaz**  
Executive Vice President

## Be A Part of the Energy International Quarterly

The EIC Quarterly is designed to keep everyone at Energy International informed about the happenings at EIC, from the acquisition of multi-million dollar contracts to the latest additions to the EIC family. We need your participation to help make it a success. If it's of interest to you, it's of interest to us. We'd also like to know what you think about the newsletter content and format and how we can make it better. Send all your news, information, thoughts and ideas to me at [jpeter@energyintl.com](mailto:jpeter@energyintl.com). I look forward to hearing from you.



### EIC Lands \$2.6 Million (USD) King Saud University Contract

*EIC to supply New University for Health Sciences with Major HVAC Components*

**E**nergy International Corporation has won a \$2.6 million (USD) contract to supply more than 6,000 Variable Air Volume (VAV) systems for the new King Saud University for Health Sciences (KSU) currently under construction in Riyadh, KSA.

The construction of the Riyadh campus, scheduled for completion in 2011, is the first phase of a three-phase project that will result in the addition of two satellite campuses, one in Jeddah and another in Al Ahsa, along with a hospital in Madinah.

"Like EIC, The Kingdom of Saudi Arabia is growing to meet the ever-evolving demands of an ever-changing world," said Allie Bazy, President, Energy International Corporation. "These types of projects further demonstrate EIC's standing as a leader in the supply of HVAC and electromechanical products in the region."

KSU will be the first exclusive medical university in the Middle East and only the third in the world. With the addition of campuses in Al Ahsa and Jeddah and the development of a curriculum designed to meet the highest international academic standards for quality medical education, KSU is expected to quickly establish itself as a world-class medical university.

The VAV units will be installed in over 30 buildings making up a main campus that will span an area of 5,000,000 square meters. The main campus will house the administration complex, health colleges including the College of Medicine, College of Nursing, Women's College of Medicine, Dentistry College, College of Medical Applied Sciences, College of Pharmacy, Public Health College, Basic Health Sciences College and Deanship of Graduate Studies.



This sign marks the site of the new KSU of Health Sciences in Riyadh.

In addition, the main campus will feature a conference hall with capacity for 2,000 people, a training center where students can focus on the development of clinical skills in a hospital-like environment and The King Abdullah International Research Center which will support faculty research through a wide range of facilities.

The VAV units allow for precise control of airflow in large structures, allowing air-conditioning and heating systems, fans and other components to work at optimum efficiency, reducing the number of running hours and saving electricity which reduces operating costs.

"Variable Air Volume boxes are a key component in a building's HVAC system and play an even more prominent role in a complex the size of KSU," said Ahmed Chughtai of EIC's U.S. Engineering Sales Department and an expert in HVAC technology. "VAV technology affords the ability to build independent zone control into the building's HVAC system. The more control you have the less you spend energy."

The VAV units will be supplied by Metal Industries of Clearwater, Fla., through their MetalAire brand. ■

### EIC Opens Office in Riyadh, Saudi Arabia

**M**azen Sheet joins EIC as Regional Sales Manager for the new KSA office to be located in Riyadh. Sheet will handle day-to-day operations at the office and oversee all current and future projects in Saudi Arabia.

Sheet holds a Technical Superior Degree in General Electricity from The Technical Industrial Institute in Beirut, Lebanon, a Bachelor Technical Degree in General Electricity and a Bachelor of Business Administration in Management Information Systems from the American University Institute of Culture & Education in Beirut, Lebanon.

Prior to joining EIC, Sheet was employed by MIDMAC Contracting Company, Doha, Qatar where he worked in the Electromechanical Department assisting in the handling of high-level projects including the construction of the School of Foreign Services (Georgetown University, Education City, The Qatar Investment and Projects Development Holding Company (QIPCO) Residential Compound with 202 villas and the Tornado QIPCO Office Tower, named as the Best Tall Tower for the Middle East and Africa in the 2009 awards from the Council on Tall Buildings and Urban Habitat (CTBUH).

Sheet can be reached via mobile phone at 966-5-64248924 or by e-mail at: [msheet@energyintl.com](mailto:msheet@energyintl.com). ■



### Energy International Corporation Signs Exclusive Agreement with Bioclimatic

*EIC becomes the sole representative for Bioclimatic Air Quality products throughout the Middle East*

Energy International Corporation has signed an agreement with Bioclimatic GmbH to serve as the sole representative for Bioclimatic products throughout the Middle East region including the Kingdom of Saudi Arabia, the United Arab Emirates, Qatar, Bahrain, Oman, Kuwait, Lebanon and Jordan.

"We are very excited at the prospect of working with Bioclimatic," said Ned

Fawaz, Chairman and Chief Executive Officer, Energy International Corporation. "We have had a long-standing relationship with our friends from Germany and we look forward to greater success as we work together to meet the demands of an ever-growing Middle East market."

Bioclimatic, headquartered in Bad Nenndorf, Germany, has more than thirty years of experience in the development and manufacture of high-quality air conditioning, exhaust cleaning and disinfection systems

for business and industry. The company's state-of-the-art technologies like AirPerfect, Phoenix and Viroxx, are the staple of many of the world's leading manufactures in the food production, storage and transportation sectors and are used exclusively in hospitals and medical facilities worldwide.



"The timing is right for a Bioclimatic partnership with Energy International," said Lothar Grannemann, Director of Sales for Bioclimatic. "The Middle East is one of the fastest growing construction markets in the world and we see a real need for the types of products and technologies Bioclimatic produces. The best way to grow that business is by teaming up with the recognized leader in the region."

EIC customers interested in learning more about Bioclimatic products should visit the EIC Web site [www.energyintl.com](http://www.energyintl.com), contact their nearest EIC representative or send an email to: [info@energyintl.com](mailto:info@energyintl.com). ■

*"The timing is right for a Bioclimatic partnership with Energy International. The Middle East is one of the fastest growing construction markets in the world and we see a real need for the types of products and technologies Bioclimatic produces. The best way to grow that business is by teaming up with the recognized leader in the region."*

*Lothar Grannemann, Director of Sales for Bioclimatic*

### U.S Department of Commerce launches "Made in USA" Catalog Trade Show

The U. S. Embassy and its Provincial Reconstruction Teams (PRTs) issued a press release inviting U.S. companies to participate in a catalog trade show for the benefit of Iraqi contractors who will help to rebuild their country.

The offer was sent out to U.S. companies who provide products or services in sectors including: oil and gas field equipment, construction equipment and building products, IT and telecommunications equipment, Security equipment, products and services, analytical and scientific instruments and consumer goods.

A press release from the U.S Department of Commerce states, "Few Iraqis have the opportunity to visit with U.S. companies at trade shows or online. This event offers your company a way to get your catalogs in front of potential Iraqi buyers for just the cost of postage."

Energy International was a participant in the three shows held on military bases in Anbar, Basra and Baghdad from June 1 through 14, 2010.

"We feel that EIC is a perfect fit for this project," said Rami Fawaz, Energy International executive VP. "We are a U.S. company with long-standing ties to construction projects in the Middle East. We look forward the opportunity to build relationships with construction contractors in the Iraqi market." ■





# EIC NEWS

The Latest News

## EIC Participates in Project Lebanon 2010

**E**nergy International Corporation showcased its engineering expertise and extensive product line-up at Project Lebanon 2010, one of the Middle East's major international trade exhibitions for construction technology.

In its 15th consecutive year, Project Lebanon has become an annual must-attend event for companies operating in all facets of the construction industry including architects, engineers, interior designers, contractors, manufacturers and distributors. This year's show, held June 1 through 4, 2010 at the Beirut International Exhibitions & Exhibits Center featured more than 600 companies from more than 25 countries.

"Project Lebanon 2010 is the perfect vehicle to showcase Energy International's leadership as a supplier and innovator for industry-leading HVAC and electromechanical products," said Bechara Saab, General Manager for Energy International's Beirut office. ■



## EIC and Jay R. Smith Join Forces in Oman

**E**nergy International Corporation announced they have signed an agreement to become the exclusive agent for the full line of Jay R. Smith Engineered Plumbing Products in the country of Oman.

Oman joins Qatar, currently sharing a similar agreement with Energy International with several additional partnerships on the horizon.

"We are privileged to have been chosen to represent the Jay R. Smith Company in Oman," said Allie Bazy, President of Energy International Corporation. "Jay R. Smith and Energy International have enjoyed a long and prosperous relationship and look forward to many years of continued growth in the Middle East."

Jay R. Smith, with headquarters in Montgomery, Alabama, USA, is the pre-eminent manufacturer of superior quality engineered plumbing products including; floor drains, roof drains, interceptors, sanitary floor, area and IWR drains, cleanouts and accessories, water hammer arresters, hydrants, backwater valves, trench drains, stainless steel products and a number of rainwater harvesting systems including a siphonic system, uniquely designed as a highly-efficient and natural way to collect rainwater. Smith has also been instrumental in designing a number of custom projects for Energy International Customers.

Interested customers and contractors in Oman can contact Sam Kadi at EIC's U.S. headquarters. He can be reached via telephone at +734.354.2000 or via e-mail at [skadi@energyintl.com](mailto:skadi@energyintl.com). ■



The Energy International Corporation booth at Project Lebanon 2010, held June 1 through 4, 2010 at the Beirut International Exhibitions & Exhibits Center showcased many of the manufacturers and products represented by EIC in the Middle East.



# PROJECT NEWS

Queen Alia International Airport, Amman, Jordan

## In The Pilot's Seat

*EIC is tapped as systems integrator to supply comprehensive IT, building management and security systems for Jordan's Queen Alia International Airport Expansion*

**E**nergy International Corporation (EIC) along with partner Johnson Controls Inc. (JCI), a global leader in building efficiency and power solutions, have been chosen to provide comprehensive IT, building management and security systems to the new Queen Alia International Airport in Amman, Jordan.

The systems will be installed in a new (USD) \$600 million, 86,000 m<sup>2</sup> (925,000 sq. ft.) terminal, part of a (USD) \$994 million airport upgrade and expansion project scheduled to be completed in 2012. The new terminal will increase capacity from 4.4 million passengers to an estimated nine million annually.

"The new Queen Alia International Airport is an important project for Jordan and the region," said Michael Shararah, General Manager, EIC Building Controls Division. "By teaming with Johnson Controls, we combine two highly respected companies with the latest in high end products and a highly experienced and talented team that can deliver a turnkey solution including design, supply, installation, testing/commissioning, training, warranty and maintenance. We are extremely proud of adding a major airport to our project portfolio since airports are the pinnacle of accomplishments for Systems Integrators."



The airport's canopy roof has been inspired by palm trees and acts as a thermal store to heat and cool the building. In addition to the energy saving techniques, the designers plan to include banks of photovoltaic panels to supplement the electricity supply.

EIC will serve as the systems integrator overseeing all aspects of the project and working with JCI exclusively on the design and implementation of the building management, access control and closed-circuit TV systems.

"Johnson Controls provides us with comprehensive solutions for BMS and security systems that have been proven in airports around the world for reliability, efficiency and security," said Shararah. "We have worked with them and the client to design a custom solution that will bring building automation and security to a new level of integration."

In addition to building management and security systems, EIC is also providing turnkey solutions for networking, telephony and wireless using Cisco, structured cabling using Leviton, fire alarm using Notifier, a world leader in this field, public address system, IP television, and master clock system.

EIC's systems play a key role in the success of this airport since they provide the backbone of IP communications including wireless, the building equipment automation, key security systems, and communications to passengers. ■





# PROJECT NEWS

New Doha International Airport, Doha, Qatar

## A Really Big Deal

*EIC and partner BLE will design custom-installed fire and smoke safety curtain system for world's largest air hangar*

Energy International Corporation along with partner BLE Group, UK has been selected to design, manufacture and install a system of fire and smoke safety curtains for a 21,000m<sup>2</sup> (226,000 Sq. Ft.). Cargo terminal, and two maintenance hangars including, what will be, the world's largest aircraft maintenance hangar when completed later this year.

"We are proud that we were chosen to be a part of this very important project," said Allie Bazy, President of Energy International Corporation. "Thanks to the dedication and perseverance of our Qatar team we have demonstrated that Energy International is the company to call on when there is a need for innovative engineering solutions, no matter the size of the project."

The cargo terminal and new maintenance hangars are part of the first phase of the construction of the New Doha International Airport (NDIA), a QAR 8.5 billion, three phase project, scheduled to be completed in 2015. The new airport will also feature two of the longest runways in the world including a 4,850 meter (15,912-foot) airstrip designed specifically to accommodate the new Airbus A380-800 superjumbo jet.

The 186,000 m<sup>2</sup> (2,000,000 sq. ft.) main facility will be the new central maintenance hub for Qatar Airways' International fleet. The fully-air conditioned hangar will have the



The main hangar at the New Doha International Airport in Doha, Qatar, the largest in the world when finished, features a column-free interior spanning 550 meters.

capability of accommodating five A380s, three A340-600s and four A320s simultaneously.

The main structure, standing approximately 45 meters (150 feet) tall and spanning 550 meter (1,800 feet), features a column-free design, the work of world renowned architectural and design firm, Ghafari. The main floor will house heavy and light maintenance bays. A workshop building at the rear of the facility will provide specialized maintenance and automated spare parts storage.

The Energy International Qatar team will provide materials and field project construction management on the project, working with BLE Group to

design a custom solution for the fire and smoke curtains.

"The column-free design posed some interesting challenges," Said Ammar Assi, Manager of Energy International's Qatar office. "That's why we chose to partner with BLE Group, a leading expert in fire protection systems, to assist us in designing and executing a unique solution to fit this unique design."

The curtains, made of treated fabric, will be mounted to the bottom of the main roof decking and secured to the roof truss supports. The system is not only designed to suppress fire and smoke, but is also specified to withstand winds of



# PROJECT NEWS

## New Doha International Airport, Doha, Qatar



The hangar's massive roof structure will house the fire curtain safety system.

up to 130 kph (80 mph).

"What made this job challenging is the curtains had to be designed so that the facility's HVAC ducting, electrical conduits and sprinkler feed system, among other things, could pierce through the curtains without affecting their integrity," said Assi. "This required the development of a special process to cut the fabric and secure it firmly to the ducting and piping."

The hangar project is just one of many NDIA projects that Energy International is currently involved in. EIC is also supplying a number of components to the new 510,000 m<sup>2</sup> (1.6 million sq. ft.) passenger terminal including ceiling fans, pre-cast oil interceptors and a number of different types of drains. ■

## Future EIC Projects

■ EIC has submitted a quote to supply natural ventilation technology for the new Aluminum Smelting facility that is being built as a joint venture between Alcoa and the Saudi Arabian Mining Company (Maaden). When finished, the \$10 billion (USD) facility will be the world's largest fully integrated industrial complex. The smelter and rolling mill should be operational in 2013 with the refinery expected to come on stream the following year.

■ EIC has submitted a quote to supply ventilation products to the Qatar Silhouette Tower & Convention Center being built in West Bay, Doha, Qatar. The 59-story complex will house 365 hotel rooms and 180 service apartments along with parking for 500 vehicles. The \$400 million (USD) project has seen several delays but is on schedule to be completed next April.

■ EIC has submitted a quote to supply ventilation components to the construction of Motor World in Abu Dhabi, UAE. The 3.5 million square-meter facility will be home to auto dealers and rental car agencies along with a self-sustaining residential neighborhood for those working in the industry.

■ EIC has submitted a number of quotes for the supply of HVAC equipment to the King Abdullah International Gardens. The gardens, a \$174 million (USD) project currently being constructed on a 360 acre site near Riyadh, are designed to amaze and educate visitors on the many past ecosystems that inhabited the region. A dual-crescent-shaped building, covering 20 acres, will house the world's largest indoor garden when completed.

■ EIC has provided several quotes for HVAC equipment for the construction of an Olympic-style stadium for the Public Authority for Applied Education and Training (PAAET) in Kuwait. The stadium, to be located in the southeastern section of PAAET Shukwaikh, will seat 8,000 spectators with 50 VIP lounges. An indoor sports complex will host basketball, squash and volleyball with 400 seats along with an Olympic-size swimming pool.

■ EIC has submitted quotes on HVAC equipment for the expansion of the Muscat International Airport in Muscat, Oman. The new 240,000 square-meter terminal is designed to accommodate 12 million passengers when it is open in 2012, and will feature restaurants, shopping centers, cafes and an 80-bed hotel.

EIC has submitted quotes for HVAC components for the Heart of Doha project in Qatar. The \$5.5 billion (USD), five-phase project will eventually raze and rebuild a 350,000 square-meter section in the center of the city. The first phase is scheduled for completion in 2012. ■





# PEOPLE NEWS

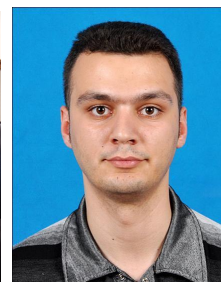
## New Faces at EIC

*Please join us in welcoming our newest additions to the EIC family.*

**Christopher J. Morin** and **Ashraf Putris** join EIC's World Headquarters in Canton, Mich., U.S.A. as Associate Applications Engineers. They will assist EIC's U.S. engineering department, working with EIC's many suppliers and associates to research and source components and prepare quotations for the company's global projects.

Morin is a 2009 graduate of the University of Michigan Dearborn and holds a Bachelors of Science in Mechanical Engineering with a minor in Hispanic Studies. He is a recipient of the U of M Dearborn Leadership Synergy Award for his activities as President of the Society for the Advancement of Material and Process Engineering, Secretary of Student Government and Secretary of Delta Sigma Phi. Morin resides in Ann Arbor, Mich. Morin can be contacted at 734-354-2000 or by e-mail at Christopher.Morin@energyintl.com.

Putris is also a 2009 graduate of University of Michigan Dearborn and holds a Bachelor of Science in Mechanical Engineering. While at U of M Dearborn he served as Vice President of the Society for the Advancement of Material and Process Engineering. Before coming to Energy International, Putris completed his engineering internship at Yamasaki, Inc., in Troy, Mich., where he worked on a number of HVAC projects including mechanical design for the Qatar National Convention Center. Putris resides in Rochester Hills, Mich. Ashraf can be contacted at 734-354-200 or via e-mail at Asraf.Putris@energyintl.com



Christopher Morin (left) and Ashraf Putris are the latest additions to EIC's U.S. engineering staff. Zaid Khaled (above).

**Rami Marji** joins EIC's Jordan office as Sales Manager. He will assist EIC Jordan in their current sales activities as well as explore new opportunities.

Marji is a 2006 graduate of the Jordan University of Science and Technology and holds a Master Degree in Mechanical Engineering. Before joining EIC, Marji worked for the National Trading Corporation (Carrier) in Beirut, Lebanon, where he was a team leader in the Sales and Study Engineering Department. Previous to that, Marji worked at Petra Engineering Industries in Amman, Jordan as a Technical Support Engineer in the International Studies Department where he was responsible for a diverse list of projects in the UAE, Kuwait, Qatar, Saudi Arabia, Egypt, Spain and the United Kingdom, among others.

**Ziad Khaled** joins Energy International Corporation as Sales Engineer in the company's Qatar office.

Khaled will assist EIC Qatar in their

current sales activities as well as explore new opportunities.

Khaled joins EIC from Thermo L.L.C., A supplier of electromechanical and plumbing products to the UAE, where he worked in the company's Abu Dhabi office as a MEP (mechanical, electrical, plumbing) planning engineer. Prior to that Khaled worked in Lebanon with FXboursa, an Arab news portal for the currency trading market, as a market analyst, translator and news stream editor.

Khaled is a 2007 graduate of the Universite' Libanaise in Beirut, Lebanon and holds a Bachelor of Science degree in Mechanical Engineering.

Khaled can be reached at +974 523 05 35 or via e-mail at ziad.khaled@energyintl.com.

**Sophia Beydoun** joined the EIC corporate headquarters in Canton, Michigan as an intern in May 24th and will be with us until July, 17.

Sophia is currently attending Externat





# PEOPLE NEWS

## New Faces at EIC

Saint Marie, a private college in Lyon, France where she is studying international trade. She is interning with EIC while visiting her aunt in the U.S. and is busying herself by completing a market study on Algeria and Egypt, exploring the marketing possibilities, researching construction projects countries, sourcing contractors and large electromechanical firms and learning about the necessary legal steps that need to be addressed when opening a branch office in each of those countries.

Sophie fits comfortably into the EIC family. She was born and raised in France to her Lebanese father and Algerian mother. ■

## Fadi Salibi Appointed as New Sharjah, UAE General Manager

**E**nergy International Corporation (EIC) has appointed Fadi Salibi as General Manager of the company's Sharjah, United Arab Emirates office. Salibi will be taking over for Ahmed Mohsen who becomes the new General Manager of EIC's Abu Dhabi, UAE office.

Salibi joined EIC in 2008 where he specialized in Wolter and PennBarry ventilation products. He moved to Energy Industrial, a division of Energy International Corporation, where he was appointed to Sales Manager and Assistant General Manager in 2009.

Salibi holds a Bachelor of Science in Mechanical Engineering (B Sc. M E) from Northwestern University in Boston Massachusetts. He is a standing member of the Ordre Des ingenieurs du Quebec, A Montreal, Quebec, Canada organization that governs Quebec's Professional engineering community.

Salibi is fluent in Arabic, English and French and also speaks some German.

Salibi can be reached at the Sharjah office at 971-6-534-3477, on his mobile phone at 971-50-481-9829 or via email at [fsalibi@energysh.ae](mailto:fsalibi@energysh.ae). ■

## Dr. Abbas Youssef is Named Director of EIC's Renewable Energy Division

**Dr. Abbas Youssef** joins EIC as Director for the company's Renewable Energy division.

EIC Renewable Energy provides solar and wind energy facilities for large and small scale residential and commercial projects in the Middle East and throughout the world. As Director, Dr. Youssef will handle all operations including investigating new business opportunities and project management for the installation, commissioning and testing of turnkey solar and wind power installations.

Dr. Youssef holds a PHD in Electrical Engineering from Wayne State University in Detroit, Mich., and an MBA from Northwood University in Midland, Mich. Dr. Abbas has been a member of the Institute of Electrical and Electronics Engineers (IEEE) since 1983 and was the director of technical activities from 2002 to 2005 of the southeast Michigan chapter. He has also been a member of the Society for Automotive Engineering (SAE) and the American Society of Quality Control (ASQ). He is a certified Six Sigma Black Belt.

During his career, Dr. Youssef has worked on a number of high-profile technical development programs for Ford Motor Company and General Motors and holds a patent for the development of an Anti-trap electronic module for auto-up window control. Prior to joining EIC, Youssef was



Dr. Abbas Youssef (far right) is joined by members of a joint venture committee partnering with EIC for the purpose of building solar farms in India. The initial objective is to build a 10MW solar farm in the state of Rajasthan to be completed by the second quarter of 2011.

the Telematics Engineering Quality Manager for Hughes Network Systems in Germantown, MD, where he managed the company's Telematics Program Automotive Requirements and Compliance Testing Laboratory.

You can contact Youssef via e-mail at [ayoussef@energyintl.com](mailto:ayoussef@energyintl.com) or by phone at the company's U.S. Headquarters at 734-354.2000. ■



# PEOPLE NEWS

## PROFILE: Beth Rutkowski, Energy International Shipping and Expediting Manager

When it absolutely, positively has to get there, the folks at Energy International don't call Fed-Ex, they call Beth Rutkowski. Beth manages EIC's shipping department and has been for most of the company's existence.

"I was the fifth employee hired," Beth says, "I joined the company in January of 1980, EIC's first anniversary. At that time, we were working on Job number five."

In the early days, with only EIC Chairman, Ned Fawaz and a few sales engineers on staff, Beth handled pretty much anything and everything that didn't require quoting.

"I was the shipping department, the accounting department and the secretary," says Beth.

Beth left the company for a couple of months due to the stresses of balancing the pressures of the job with a new husband and two step sons Steve age 9 and Brian age 11.

"I went from being single to being married with children practically overnight," Beth says. "The added responsibility of family and the pressures of the job were too overwhelming at the time."

A phone call from EIC President Allie Bazy brought Beth back to EIC, where she assumed the expediting and shipping duties, leaving accounting and secretarial responsibilities to others.

As Shipping and Expediting Manager, Beth's job begins once an order is placed.

She coordinates with the manufacturer to set up delivery times, fills out and files all of the necessary paperwork needed to clear shipments with the customs



Beth Rutkowski, EIC Shipping/Expediting Manager

departments of the countries she handles and shepherds the products from factory to job site.

Some items are shipped directly from the factory, while some are shipped to EIC headquarters where they are logged in before being sent off to their final overseas destination.

"The engineers only need to get involved when technical issues arise," says Beth. "For example, we may have a fan order on hold while a motor issue is being resolved. Once the engineer takes care of the issue, the process proceeds."

Beth has watched EIC grow from the few employees occupying a small suite in Troy, Michigan, to the newly-built Canton headquarters that has been home to EIC for the past six years.

"The Troy office went from one suite, to two, to three," Beth says.

Outgrowing the Troy office, the company, (now numbering a dozen employees including EIC's first and only female engineer Joanne Stigmeyer), moved down the road to a larger office in Southfield, Michigan.

"The Southfield office had no storage," Beth laughs. "We had file boxes stacked floor to ceiling along the back wall of one guy's office, an office he was using every day."

From Southfield, EIC moved farther south to the suburb of Dearborn, Michigan before finally moving to the Canton, Michigan location in 2004.

One of Beth's favorite perks in the new facility is the addition of a warehouse, a first for the company.

"Having our own warehouse has been a big, big, help," Beth says.

Before moving to Canton, EIC borrowed warehouse space from employee family members and friends.

Beth would get an order and have the product shipped to whatever warehouse EIC was using at the time, drive from the office to the warehouse to check the product against the order, drive back to the office to fill out the paperwork and then drive back to the warehouse to ship the product.

"We were still handling orders for Saudi Aramco (the state-owned national oil company and largest oil company in the world) at the time," Beth Says. "Every item had to be checked before it could be shipped."

When Beth isn't shipping fans and VAVs all over the world, she spends time at her Livonia, Michigan home or camping in her RV with husband Don, who runs his own commercial refrigeration company, and dog Tuxedo. She has seven grand children with number eight on the way.

When it comes time to deliver, we know someone who's pretty good at getting that done. ■



# TECHNOLOGY

Featured Supplier Jay R. Smith

## Hairs to Innovation

*Engineers at Jay R. Smith find a fantastic way to foil the follicles*

When your drain plugs up you call a plumber. When it plugs up repeatedly you call in the specialists.

That's what the proprietors of a local Alabama girl's college dormitory did when they continued to experience a stoppage in the section of the sanitary sewer connecting the shower facilities to the main sewer. Each time the sewer needed cleaning, the culprit turned out to be a large amount of human hair plugging up the system.

The college turned to the specialists at Jay R. Smith to devise a solution. Jay R. Smith, the Montgomery, Alabama-based manufacturer of floor-drain systems for commercial and industrial use. The company already stocked a small in-line interceptor designed for human hair, but it wasn't big enough for the desired application.

The company also listed an interceptor used by kennels and pet grooming salons, specifically designed to trap animal fur, but research showed that the significant differences in the make-up of animal fur versus human hair would require the development of a dedicated unit for this particular project.

"One of the key differences was the core of the hair follicle," said Jerry McDanal, Vice President of Engineering at Jay R. Smith. "The core of the animal fur follicle has properties that allow for the coating of the hair to provide excellent insulation from both hot and cold, and to provide a fair amount of

protection from rain and moisture as well. Human hair, by contrast, does nothing to provide temperature regulation for the body and lacks the ability to prevent rain from soaking through to the scalp. "

McDanal notes that another notable difference between human hair and animal fur is the composition of the human head of hair and the pelt of an animal. Human hair tends to have the same overall texture while animal fur generally includes a double composition.

In addition to the coarser top layer of fur there is a shorter, finer layer, referred to as an undercoat. While human hair tends to grow independently, animal fur grows in a more synchronized fashion, reaching a certain point and falling out to be replaced by new fur. Anyone with a shedding dog can attest to this.

"Since human hair is longer and finer than animal fur," said McDanal, "a unit had to be designed with smaller, enhanced mesh screens placed strategically apart to adequately intercept the human hair. "

After extensive design work in the product design department, a prototype unit was fabricated from stainless steel and sent to Jay R. Smith's R&D laboratory for further testing and refinement.

In order to accurately duplicate test conditions, actual human hair was used.

"We spent considerable time collecting hair samples from several styling salons in town," Said McDanal.



Jay R. Smith answered customer demands by developing a special interceptor designed to trap human hair.

"We wanted a cross section of hair samples from silky to coarse. The samples also varied from one inch to 10 inches in length."

The prototype was connected to a flow bench. The input side was fed by a 50-gallon basin filled with water mixed with human hair. The valve was opened and the water was collected on the output side and examined to see how much human hair managed to escape the interceptor.

The test was repeated for hair that was heavily coated in shampoo, conditioner and hairspray with results coming out about the same.

"We had a lot of fun working on this project," said McDanal, who stresses that this isn't an unusual undertaking at Jay R. Smith. "Whatever the issue, we listen to our customers and work to develop a product that will meet their needs." ■