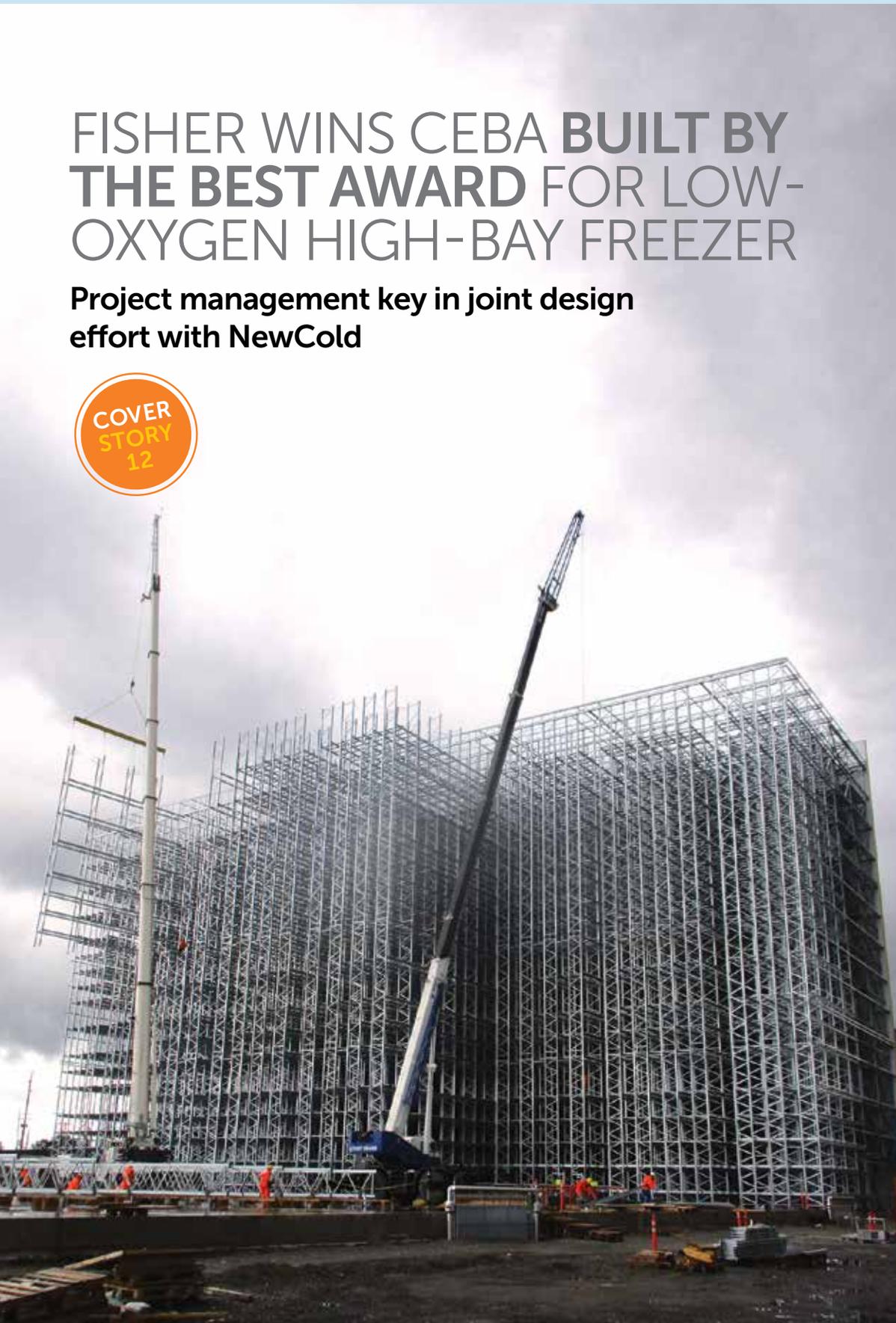


FISHER WINS CEBA **BUILT BY THE BEST AWARD** FOR LOW-OXYGEN HIGH-BAY FREEZER

Project management key in joint design effort with NewCold



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Fisher Construction Group was named the winner of the 2018 Controlled Environment Building Association's Built by the Best Award for its project with NewCold. See the article on page 12. (Photo courtesy of Fisher Construction Group.)

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A Foundation for Success



ONE OF THE KEYS to business success is building operational strength while remaining nimble to respond to a changing environment.

As we march through 2019, we see some uncertainty in the market. Will economic growth continue? Will consumer demand for the products we handle remain strong, benefiting our corporate customers as well as our industry? Or will circumstances change, altering our business trajectory and requiring that we adapt accordingly?

Regardless of how this year plays out, I am confident that the cold chain industry will continue to thrive and grow. I say this because the collective effort of GCCA members (and particularly the IARW members that I represent) has built a strong foundation – one that has and will stand the test of time and emerging challenges.

A few years ago IARW and WFLO embarked on a strategic plan to grow the industry, lead the cold chain, drive supply chain profitability, and develop talent. Since then, we have created programs and new initiatives to support these goals.

For example, this year we launched the “Protecting the Foods Families Love” campaign, built on solid consumer research that provides a base of knowledge relevant to the entire cold chain, especially our customers. It’s one way we add value to what 3PLs bring to food companies and other organizations that use our services.

We’ve also made the business case that outsourcing the storage and transportation of temperature-controlled products makes operational sense. It provides flexibility and lower internal overhead to help customers focus on their most important issues while having confidence that their supply chain is well-managed with trusted partners.

All this has built a brand that supports the entire cold chain industry – including each of your companies – giving customers confidence that we are looking out for them, because their success is our success.

They know that food safety and quality are utmost in our minds and that our industry has the proven expertise to deliver in these critical areas. Customers also know that we place a high premium on talent development to ensure that their needs are handled professionally by experienced people.

Doing these things well gives us a platform to reach even higher, tackling operational challenges such as energy consumption – the biggest cost center in our industry. The new GCCA Energy Excellence Recognition Program helps drive innovation by rewarding companies that operate with a philosophy of energy conservation while helping to make the overall cold chain more sustainable. The program provides interactive tools to track energy efficiency at company facilities, receive progress reports and work with management resources to create a culture of energy efficiency.

Meanwhile, we’re also expanding our reach globally, applying our best thinking and performance metrics wherever they are needed. Our recent rapid growth in Latin America and South America are prime examples. Just a few months ago we created GCCA Brazil, hired a GCCA Brazil Director, and conducted the first GCCA/ABIAP Brazil Symposium. Similar outreach continues in Europe and many other parts of the world.

I think you’ll agree that we’ve constructed a strong foundation. As always, GCCA is a member-led organization, we need everyone’s involvement to make our association and industry strong. So thank you for your support! 🍷



DOUG HARRISON
IARW CHAIR

COLDFACTS

COLD FACTS magazine is published every other month by the **Global Cold Chain Alliance (GCCA)**, an organization that unites partners to be innovative leaders in the temperature-controlled products industry. The GCCA Core Partners are:

The **International Association of Refrigerated Warehouses (IARW)**, which promotes excellence in the global temperature-controlled warehouse and logistics industry.

The **World Food Logistics Organization (WFLO)**, which delivers education and research to the industry and empowers economic development by strengthening the global cold chain.

The **International Refrigerated Transportation Association (IRTA)**, which cultivates, fosters and develops commercial and trade relations between all those engaged in the transportation and logistics of temperature-controlled commodities.

The **Controlled Environment Building Association (CEBA)** represents the design and construction industry specializing in temperature-controlled facilities that prioritize product safety best practices. We are the source for best practices of building and maintaining the thermal envelope.

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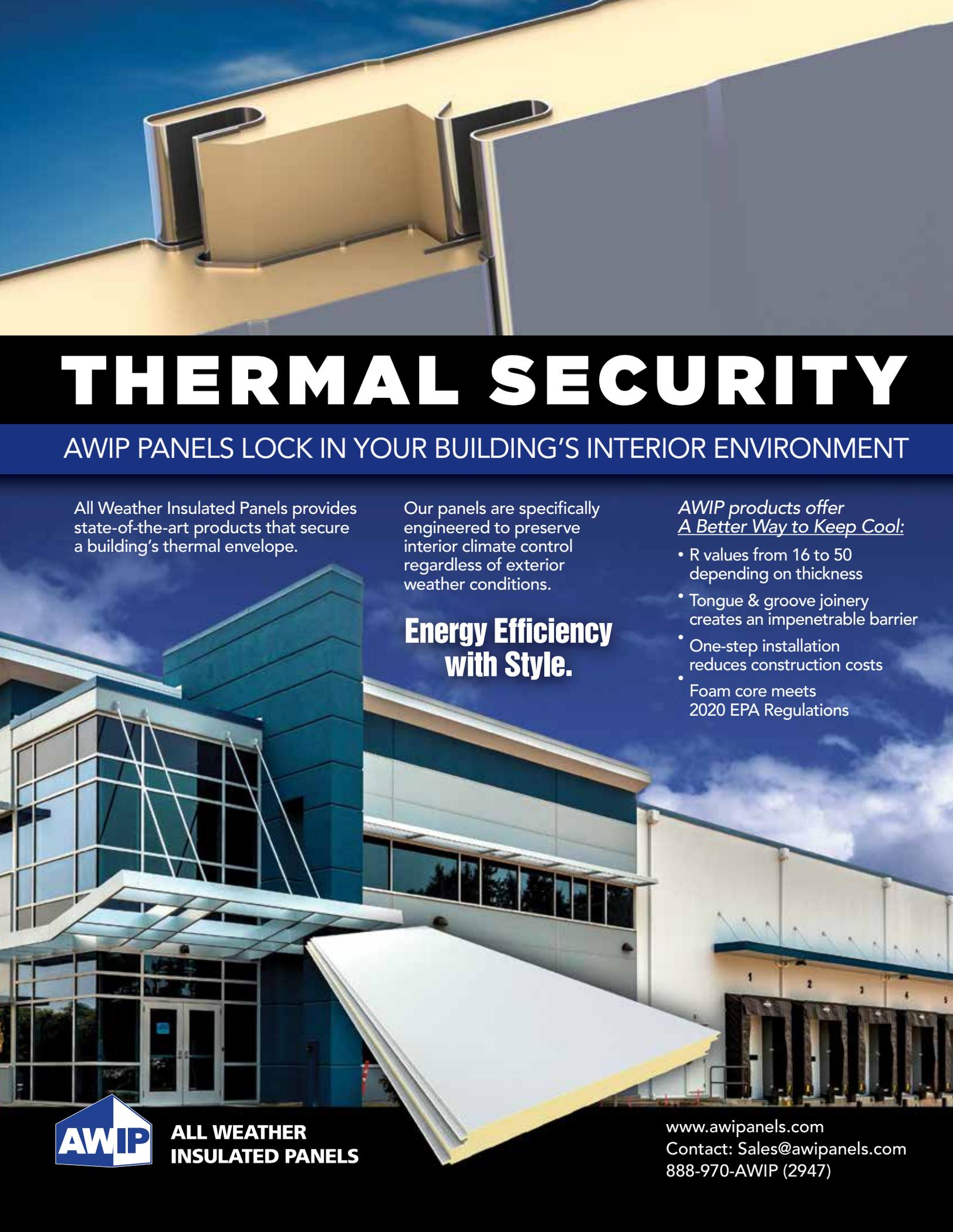
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WHAT'S NEXT FOR USMCA

Outcome will have significant impact on cold chain businesses.

By Lowell Randel

Leaders from the United States, Mexico, and Canada signed the United States, Mexico and Canada Trade Agreement (USMCA) on November 30, 2018. The new accord is designed to replace the North American Free Trade Agreement (NAFTA) with modernized provisions to facilitate trade across the three countries. Modernizing NAFTA was a major campaign issue for President Trump, who had been very critical of NAFTA.

The signing of USMCA was the product of months of negotiations between the three countries that, at times, were contentious. President Trump threatened to withdraw from NAFTA several times during the negotiating process as the talks slowed over issues ranging from automobiles to farm policies.

The United States initially reached an agreement with Mexico on August 30, 2018, and there was uncertainty about whether the accord would remain trilateral. However, on September 30, 2018 negotiations were successfully completed with all three countries signaling the intent to sign the agreement on November 30, the last day that former Mexican President Pena Nieto was in office.

USMCA Highlights

One of the major goals of USMCA is to bring the regional agreement into the 21st century. The original NAFTA was signed in 1992, and there have been significant developments in technology and trade in the last 25 years.



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Examples of modernization include a new chapter on digital trade, new policies on agricultural biotechnology, and stronger provisions related to intellectual property.

Agriculture is a significant driver of USMCA countries and was an important part of the original NAFTA. The new USMCA recognizes the critical role of agriculture in the region and includes provisions to facilitate freer trade in agricultural products.

Major food and agriculture provisions include:

- Maintain zero tariff rates for agricultural products established under the original NAFTA.
- Increase access of U.S. dairy products into Canada, including new tariff rate quotas.
- Elimination of Milk Classes 6 and 7 in Canada.
- Expanded poultry and egg market access for U.S. products into Canada, including new tariff rate quotas.
- Increased access of Canadian sugar, margarine, and peanuts into the United States
- Establish new standards for agricultural biotechnology.
- Enhance rules for science-based sanitary and phytosanitary measures.
- Prohibiting trade barriers for alcoholic beverages.

According to analysis conducted by the Farm Foundation, the new policies contained in USMCA are estimated to result in an increase of \$454 million in agricultural exports from the United States to Canada and Mexico. The largest increases will come from dairy, eggs, and poultry all perishable commodities requiring a strong cold chain.

Impact of Steel and Aluminum Tariffs

While USMCA promises to help build agricultural trade across the three countries, current steel and aluminum tariffs placed on Canada and Mexico by the United States, and the corresponding retaliations levied by Canada and Mexico on the United States, threaten to overshadow any gains achieved by USMCA.

A recent study by Purdue University estimates the net impact of USMCA, coupled with the steel and aluminum tariffs and retaliatory measures would reduce U.S. agricultural exports by \$1.8 billion. The study also projected that NAFTA withdrawal and a failure to ratify USMCA would result in over \$9 billion in lost agricultural exports.

The stakes are very high for agricultural trade for all three countries in the region, and successful conclusion of the process is critical.

The outcome of NAFTA and the USMCA process will have significant impacts on businesses in the cold chain.

USMCA Timeline and Next Steps

- **August 30, 2018:** Congress notified of agreement between United States and Mexico.
- **September 30, 2018:** Negotiations completed, and draft text released.
- **November 30, 2018:** Agreement is signed by all three countries.
- **Sixty days after signing:** List of required changes to U.S. law submitted to Congress.
- **At least 30 days prior to introduction of implementing legislation:** Final agreement text, draft Statement of Administrative Action due.
- **105 days after signing:** International Trade Commission (ITC) report due. (This could be delayed due to the partial government shutdown.)
- Consideration by legislatures in United States, Canada and Mexico.

Outlook for Ratification

The results of the 2018 elections have added some complexity to Congressional consideration of USMCA. Approval is required by both the House of Representatives and the Senate. Democrats regained control of the House and the current relationship between Congressional Democrats and President Trump is strained. Speaker Pelosi has already indicated some concerns about the USMCA and the lack of labor and environmental protections.

Under the “fast track” trade promotion authority, agreements such as USMCA are supposed to go before Congress for a simple up or down vote with no opportunities for amendments. This process is meant to give trading partners some assurance that deals will not be changed after they are negotiated. However, there is precedent for Congress suspending “fast track” procedures. In 2008, Speaker Pelosi suspended the rules during consideration of the Colombia free trade agreement. Given the sensitivities of USMCA negotiations, changes by Congress after the agreement was signed could be problematic.

The steel and aluminum tariffs are another stumbling block for ratification. The Trump Administration has attempted to keep the tariffs and USMCA issues separated, but with limited success. Some in Congress have argued that USMCA should not be ratified until the steel and aluminum tariffs are removed from Canada and Mexico. The Canadian and Mexican governments have also stated ratification by their legislatures will not be possible with the tariffs in place. It appears unlikely that USMCA can be finalized without resolution on steel and aluminum.

A final complication to successful completion of USMCA is U.S. electoral politics. Several Democrats have already announced their intentions to run for President in 2020. As the calendar moves closer to the 2020 presidential election, it will become more difficult for Democratic leaders to give President Trump a signature win on one of his major campaign promises.

Given the uncertainties of the ratification process, President Trump has suggested that he might initiate a withdrawal from NAFTA. Initiating a withdrawal would place extreme pressure on the member countries to either ratify USMCA or revert to pre-NAFTA policies. Should President Trump officially start the withdrawal process, there would be a six-month period in which the countries could work to finalize ratification of USMCA.

The outcome of NAFTA and the USMCA process will have significant impacts on businesses in the cold chain. More and more GCCA members are involved in importing and exporting perishable commodities. As a result, promoting free trade continues to be a priority for the industry. GCCA will continue to work with policy makers and partners to promote free and fair trade policies in North America and across the globe. 🌐

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FISHER WINS CEBA BUILT BY THE BEST AWARD FOR LOW-OXYGEN HIGH-BAY FREEZER

Project management key in joint design effort with NewCold.

The recently completed NewCold Tacoma in Tacoma, Washington, is NewCold's first cold storage facility in the United States, and only the second low-oxygen, high-bay freezer in the country. The state-of-the-art freezer is a joint design effort by Netherlands-based NewCold and the design/build firm Fisher Construction Group of Burlington, Washington. Fisher was the general contractor for the project.

While the facility is one of the largest in the United States, it is attracting a great deal of attention (see "Innovation and Automation Address Key Challenges in Cold Storage," Cold Facts, November-December 2018) for the cutting-edge automation deployed throughout the facility in combination with intricate, vertical design processes housed within a fireproof, low-oxygen environment.

The building, which opened for business in Spring 2018, provides high-volume, high-capacity throughput while being situated on a fraction of the footprint that a traditional frozen food warehouse requires. The 157,000-square-foot high-bay reduces the footprint of a traditional warehouse by nearly 75 percent for warehouse space alone.

For the many complexities and innovations of the build, as well as the level of project management required, Fisher Construction Group was named the winner of the 2018 Controlled Environment Building Association's Built by the Best Award for its project with NewCold. The award was presented on November 8, 2018, during a general session at the 38th CEBA Conference & Expo.

Project Management

Planning and managing a project with a first-time customer in itself is a significant challenge. Planning and managing a project for a foreign customer's first entrance into the U.S. market multiplies this challenge.

"Working with a European customer new

to the U.S. market, dealing with an eight to nine hour time difference, with multiple trips to Europe to coordinate design, was a new and challenging experience," recalls Josh Currie, who was Fisher's Senior Project Manager on the build. "And all that is compounded when the collective project team originate from seven different countries, seven different cultures, and speak six different languages."

To bring about the success of the project, a high degree of organization, cooperation, and communication, far exceeding that for a typical warehouse project in the United States, was needed.

Through multiple meetings in the Netherlands, at the corporate office of NewCold, and at several of their western European facilities, Fisher's design and construction team was able to fast-track the understanding of NewCold's needs and expectations, as well as overcome some of the initial language and cultural differences.

Currie says the Fisher team actively listened to the customer and not only heard, but understood the conversations. "The ability to observe operational conditions in European facilities, nearly identical to the one being designed in the United States, was instrumental in understanding NewCold's needs and expectations."

The Fisher team acclimated itself to New-

Cold's high-bay building program by learning and understanding NewCold's culture and language nuances. This helped the Fisher team to properly transform NewCold's program into a compliant U.S. and E.U. design. "The client is used to doing things a certain way in Europe, which might not work the same way in the States," Currie points out. "For instance there are notable differences in some key terminology, differences with team structuring as well as unique approaches to how work is subcontracted."

According to Currie, these meetings and site visits allowed for real time platforms to better define the execution plan and strategy for the design and construction of this unique facility.

Along with learning and understanding NewCold's culture, needs, and desires, the team transferred their knowledge of the U.S. cold storage market to NewCold. This started with seemingly simple things – such as converting the Metric to the Imperial System of Measurement – but also encompassed nuances other than simple mathematical conversions or the phrase difference when speaking and converting to a second language.

For instance, Currie notes that labor was a stumbling block. "There are discrepancies in how labor is priced in the United States versus Europe. Initially, that created a situation where the customer was not 100 percent confident until the issue was thoroughly vetted and differences clarified."

"We had European subcontractors onsite and so there were the hurdles of dealing with visas necessary for their labor force as well as transportation and Customs challenges shipping materials from overseas," Currie adds.

"It might seem like a small thing, but with so many workers and subs on such a small site, managing onsite staging and access to certain areas, and creating onsite parking for 350 people, was daunting to say the least."

Beyond the obvious items were other challenges such as design software compatibility, file sharing, web/tele conferences, and multi-company personnel reviews.

The execution plan included but was not limited to the following:

- Set-up and management of real-time file sharing platforms and platforms that were tailored to allow for multiple levels of permissions and access, as well as being intuitive to use.
- Set-up of management calls, design review web conferences, in-person design review



Fisher Construction Group was named the winner of the 2018 CEBA Built by the Best Award competition for NewCold Tacoma, a joint design effort with NewCold Advanced Cold Logistics. The award was given at the 38th CEBA Conference & Expo. L to R: Corey Rosenbusch (CEBA-GC-CA), Josh Currie (Fisher), Jonas Swarttouw (NewCold), and CEBA Chairman Tim Nguyen.



The NewCold Tacoma state-of-the-art freezer is a joint design effort by Netherlands-based NewCold Advanced Cold Logistics and the design/build firm Fisher Construction Group of Burlington, Washington. It is one of the largest cold storage facilities in the United States, with Phase 1 containing approximately 25 million cubic feet of storage capacity an 103,000 pallet positions. ((Photo courtesy of NewCold.)



The 120,000-square-foot frozen two-story dock ensures receipt of product to storage as well as picking of product to outbound loading each takes under 20 minutes. (Photo courtesy of Fisher Construction Group.)



Uninterrupted pallet racking with unobstructed areas within can reach 135 feet. (Photo courtesy of Fisher Construction Group.)



A section of the 1.5 miles of conveyors contained within NewCold Tacoma. (Photo courtesy of Fisher Construction Group.)

meetings, and specific issue resolution sessions in a manner that included redundancy and back-up.

- Set-up and management of electronic design coordination such as BIM/Clash Detection software. What is commonly accepted and used by most of today's U.S. contractors and design firms was extremely challenging when European design companies do not use REVIT/Navisworks compatible software.
- Definition and establishment of communication protocols that considered the workdays in substantially different time zones while maximizing the exchange of information and minimizing wait times for critical responses.

Collaboration and Communication Key

NewCold Tacoma, unlike traditional warehouses, required designs from four separate structural engineering firms, plus a European consulting engineer. The slab engineer was with a U.S. based company but the parent company was in Europe. The rack engineer came from Germany. The decking and paneling engineer and the mud slab designer were American.

Project Profile, NewCold Tacoma

Project Elements:

- 10,000 Tons Steel
- 25,000 Cubic Yards of Concrete
- 8,000,000 Bolts
- 8 Cranes and 3 Shuttles
- 1.5 miles of conveyors
- Remove and add 30,000 cubic yards of recycled and reused concrete material
- 98 percent of material/construction waste recycled

Building Specs:

- 30 acre site
- 310,000 square feet including 120,000-square-foot frozen two story dock and pick area
- 140 feet tall
- 25,500,500 cubic feet of storage
- 103,000 pallet positions
- 30,000 square feet of Class A offices for NewCold and Trident Seafoods

Innovative Features:

- Soil anchors provide tension within the brace zones to withstand seismic events as well as strong winds.
- Referred to as a "dark" high-bay, it operates within a strictly controlled system where oxygen is reduced to 16.5 percent saturation through a nitrogen exchange process eliminating the possibility of fire.
- Rack supported construction in the low-oxygen, high-bay makes it possible to build 12 stories high – uninterrupted pallet racking can reach 135 feet – with unobstructed areas within, and free of traditional building supports.
- 25,000,000 cubic feet of high-bay and low-bay is kept at -5°F with an evaporator capacity of only 450TR. Also utilizes air cooled condensing requiring less electrical consumption and no water.
- The building operates on half the energy consumed by conventional storage.
- Proprietary WMS directs all automated and manual flows in the warehouse providing complete traceability and trackability and significant reduction in shrinkage
- Fully-automated robot-driven stacker cranes and shuttle cars convey product inbound and outbound.
- The shell is a Zero Energy Loss Envelope and extensive vapor/thermal barriers, specialty movement details addressing thermal structure, airlocks for all pass-through openings, and double interlock fast-acting airlock doors for all conveyor pass-throughs support the thermal envelope integrity.
- The efficiency of high-bay product storage is nearly double that of a traditional frozen warehouse – high-bay has a footprint of 157,000 square feet and houses 103,000 pallet positions; receipt of product to storage as well as picking of product to outbound loading each takes under 20 minutes.



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“Many of the subcontractors were not used to European codes and design standards,” Currie says. “The management, coordination, and collaboration required of this project were imperative to its success. This required more frequent and more in-depth design review sessions to assure all elements were understood and accounted for in the design.”

Currie says meshing everything into one efficient, cohesive package was a very interesting element of the build. “It was very collaborative and at times frustrating. Despite all the pre-work that went into the build, at the end of the day we still had challenges we couldn’t avoid.”

“It took awhile for people to understand certain terminology and means and methods that might be different, and that was a two-way street, but eventually we became harmonized,” Currie concludes. “Now that we’re finishing up a second project with NewCold, we still have interpretation impediments that occasionally pop up, but like any good relationship, communication is key. You have to listen and make sure you understand and vice versa. That was the biggest learning curve on the whole NewCold Tacoma project, but when I look back at where we were three years ago, the progress is dramatic.”

Safety First

“Safety is the most important aspect of any project,” Currie acknowledges, “but on a project of this size, which at its peak had over 350 people on a very small site, including foreign employees, temp labor, and direct contractors to the owner, it was a huge feat and safety challenges presented themselves daily. Safety management alone was beyond a full-time job.”

Currie says Fisher rose to the challenge beginning with a risk analysis that proactively identified, assessed, prioritized and managed risk from pre-construction through final completion and “first pallet in.” “This was essential to reducing exposure to the typical pitfalls of a construction project, and encompassed construction considerations ranging from seasonal weather issues, highly specific site area logistics, and transcontinental material shipments using just-in-time deliveries.

Fisher implemented more than 1,000 safety orientations for all on-site employees, regular preconstruction meetings, daily huddles, pre-lift and pre-task planning, weekly safety meetings for all hands, and mandatory stand-downs to assess near-miss accidents. Currie added that Fisher required OSHA 10 certifications for all personnel on-site and employed a full-time safety officer to monitor for all high-risk elements for the high-bay structure erection.

Fisher also reached out pro-actively to consult with WISHA (Washington Industrial Safety and Health Act) in Washington State before the build began and brought local emergency services to the site to orient them.

Currie says he’s happy to report that, “Fisher completed this project with zero WISHA violations or citations, and only one recordable injury.”

A Final Reflection

Currie notes that while a smart contractor goes into a project with protocols clearly planned and in place, the circumstances of the NewCold Tacoma project required the ability to adjust, adapt, and conform to ever-changing processes and protocols to best improve and maximize efficiencies throughout the course of the programming, design, and construction.

“The ability to be flexible and receptive to suggestions of the collective team proved as important, if not more important, than the ability to write a good subcontractor scope of work or put together a strong and meaningful schedule. This project required managing and adapting concurrently for project success,” Currie concludes.

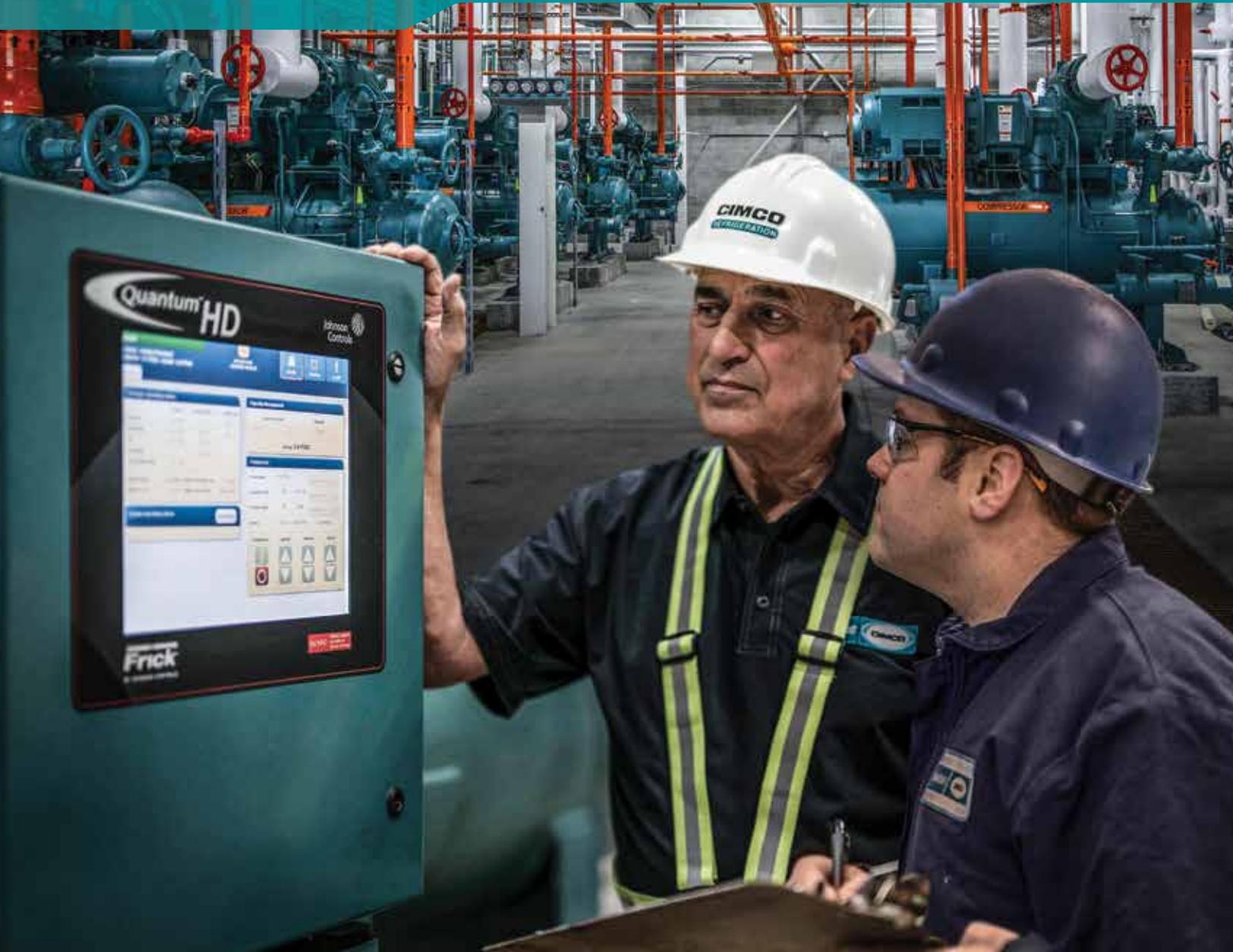


The reception area is part of 30,000 square feet of Class A offices for NewCold and Trident Seafoods. (Photo courtesy of Fisher Construction Group.)



The 157,000-square-foot high-bay footprint reduces the footprint of a traditional cold storage warehouse by nearly 75 percent. (Photo courtesy of Fisher Construction Group.)

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Award-Winning Supplier Profiles

A number of suppliers were integral to the success of the winning project. Among them is SubZero Constructors, which specializes in providing refrigeration/thermal design and construction services on a nationwide basis for the low-temp and food processing industry.

Vince Free, Vice President-Thermal with SubZero Constructors had this to say about being part of the award-winning project. "I love the CEBA Built by the Best award because it highlights the most challenging projects every year and provides an educational opportunity that otherwise wouldn't exist for our association and industry. The scoring includes a point system that rewards utilizing subcontractors and suppliers that are CEBA members. This incentive ultimately provides the end user of the project a more complete and professional industry expert team. A CEBA team! I look forward to future CEBA Built by the Best presentations and I am grateful to be on the team for the 2018 award winning project."

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SubZero Refrigeration Superintendent talking with his team about rigging mechanical equipment at the 120-foot elevation. (Photo courtesy of SubZero Constructors.)

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The DTCO 1381 digital tachograph's mass memory makes it possible to record data for 365 days. (Photo courtesy of Siemens AG.)



THE TACHOGRAPH: EUROPE'S ELD SOLUTION

Electronic logging technology has been in use for more than a decade.

By Karen E. Thuermer

In the United States, trucking firms, including those that transport refrigerated products, continue to absorb the impact of the electronic logging device (ELD) mandate that took effect in December 2017.

Europe has been dealing with a similar mandate but has had an edge with another technology, given that their rules came into place 11 years earlier. There, all drivers, whether for a transport company or a company that produces goods and has

some trucks to transport these goods, must comply with European Commission (EC) 561/2006, which became effective in 2006. EC 561/2006 harmonizes and provides a common set of rules throughout the European Union (EU) for maximum daily and

fortnightly driving times, as well as daily and weekly minimum rest periods for all drivers of road haulage and passenger transport vehicles, subject to specified exceptions and national derogations.

In the EU, compliance of these provisions is subject to continuous monitoring and controls that are carried out on a national and international level utilizing Europe's equivalent to the ELD – the tachograph. The monitoring of tachograph records takes place roadside and at the premises of undertakings, regardless of whether the driver works for a transport company or manufacturer.

Initially, tachographs were operated using analog systems. "The driving laws did not really change when the digital tachograph was introduced," comments Gerlo Grevelink, BBS Instructor at Nijhof-Wassink, a logistics company with operations in the Netherlands, Belgium, Germany, Poland and Hungary. "Before the digital tachograph, we already knew the analog tachograph." That made the introduction of the digital tachograph to drivers and companies easier in Europe, with the exception of small companies, of which there are many.

"One thing the digital tachograph made clear — we thought we did a good job in terms of driving and resting times, but it turned out our drivers had to work much more precisely," he says. Today, Grevelink's job is to collect the data from driver cards and digital tachograph, analyze this data and help the drivers work smarter and more precise."

International Road Transport Union's Mark Billet, who leads the IRU's road freight transport and environmental affairs in Europe, explains how the tachograph works. All data is collected in the truck cabin on a "digital tacho" system, although digital and analog

tachographs co-exist and some drivers still work with two sets of tachographs. But unlike analog tachographs, digital tacho systems record data electronically.

"When in a vehicle with an analog, the driver should be able to prove his activity carried out with a vehicle equipped with a digital tachograph," Billet says. "Several things have to be added manually, such as when a border is crossed."

The data is recorded in the device and on the driver card. The vehicle must have a printer onboard so that the data can be printed and read. "When tachograph data have to be sent to a company premises, they have to be downloaded on a stick in the vehicle and sent via the onboard computer."

But smart tachographs, the first generation of which will be placed in new vehicles as of June 2019, will be remotely accessible by companies and authorities. They will have a very basic GPRS device — not mapping like GPS systems. Second generation tachographs are expected to be in new vehicles in 2022 and will come with a more developed GPRS device. "But they still will not have complete detailed mapping," he says.

Tachograph Details

So how does a tachograph work? To operate a truck, the driver must put his or her driver card into the tacho system and register proper actions that are partially based on the input of the driver.

"The data gathered in this tacho nowadays can be sent via a data connection or needs to be downloaded from the card to a terminal in the office every 30 days maximum," explains Kristian Weijts, who leads transport activities for integrated service provider NewCold Advanced Cold Logistics in the Netherlands.

In addition, every three months the mass memory of the truck itself needs to be downloaded. "Both need to be archived for official checks by government institutions," he says. "A breach of not having this data available, or only partially, is heavily penalized."

Today, companies like NewCold have the option of sending data via "the cloud" to an archiving or processing system in the office, which helps minimize administrative downloading of the card. The advantage to this, says Weijts, is alleviating the risk that the drivers forget to download.



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“The same goes for truck mass memory,” he reports. “We currently are using two options for this process next to the manual downloading.”

NewCold currently uses two options for this process next to the manual downloading — board computer (BC) and Siemens/Tisweb Black Box.

Trucks with a board computer facilitates driver communication. The BC is linked to the tacho and sends driver card and truck information on tacho every 24 hours to their official archiving system. “In this way, data is always available in archives,” Weijts says.

Next, the data received into the system (called Transics) is converted into an “infringement report” that shows the driver’s week use on tacho, stipulating any mistakes he made in using the tacho and driver card that can lead to penalties.

“They prove if the driver behavior is not in line with regulations on the driving time directive,” Weijts says. “This is discussed weekly with the driver to improve the use and actively show management legal compliance.”

“They prove if the driver behavior is not in line with regulations on the driving time directive. This is discussed weekly with the driver to improve the use and actively show management legal compliance.”

—KRISTIAN WEIJTS, *NewCold Advanced Cold Logistics*

Lastly, the tacho data in some countries, like France, converts to salary information, ensuring drivers are paid for the appropriate time worked, overtime hours, and nights out.

“As the BC facilitates more than legal compliance and tacho management, we can also use it for tracking, order communication, and driving style analyses such as fuel consumption, as it is also linked into the FMS of the truck provider,” he adds.

Trucks not equipped with BC systems, such as short-term rentals, utilize a black box that can be connected to Siemens’ tacho. This sends data as described above to their own analysis platform called Tisweb. This also can analyze, manage and archive data like the BC.

“Next to this, the black box can also provide us with insight on geolocation,” Weijts says. “For now, FMS information and order communication are missing for this option.”

In another scenario, Grevelink explains that Nijhof-Wassink utilizes Tachoscan, a Polish program that shows what a driver did wrong in terms of driving and resting times. Speed is also stored from the last few hours of driving before the download.

“The digital tachographs we use are all the same brand, Continental, but in different versions,” Grevelink says. “The digital tachograph has been renewed several times since the introduction in 2006.”

Grevelink stresses that tachograph data is not used for tracking and traceability, since the device is “read-only.” A side note: tracking and tracing in the EU is not obligatory with the exception for ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road) goods and live animal transports.

For tracking and tracing, Nijhof-Wassink uses an onboard computer. “The digital tachograph did not change the way of working in this,” he says.

However, Nijhof-Wassink’s planning department uses tachograph data. “Things like driving times and kilometers travelled are important to the planners so they can decide which driver is the better choice for a certain trip,” he says. ☺



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KAREN E. THUERMER is a freelance writer based in Alexandria, Virginia, who specializes in economic and logistics issues.

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WAREHOUSE EMPLOYEE TURNOVER RATES DROP

Survey shows retention strategies are working.

By Sheryl S. Jackson

The labor shortage is still a challenge for the cold chain industry but strategic efforts to retain employees to lessen the effects of the shortage appear to be working, according to results of the 2019 IARW North American Warehouse Employee Turnover Survey that measures turnover rates from January 2018 through December 2018.

“In our 2018 survey, respondents reported an employee turnover rate of 40.2 percent, but our 2019 survey shows a significant decrease – 32.8 percent – which is 7.4 percent lower than the previous year,” says Catharine Perry, Vice President of Member Programs and Services for GCCA.

The survey, which was previously data collected in the IARW Productivity and Benchmarking Report, was separated from the larger survey to accomplish two things: shorten the overall benchmarking report to focus on operational key performance indicators and to focus specifically on an issue that is of great concern to members, says Perry.

“This is the second year that we’ve surveyed members about turnover rates, and we saw the number of participants double from 102 participating facilities to 212 facilities,” Perry explains. “We did make a few changes to make it easier for

large companies to provide facility-level data, such as providing a spreadsheet to complete versus individual survey forms for each facility, but interest in sharing and reviewing this data is of increasing importance to all members, which also contributed to the increase.”

In addition to quantitative data collected, respondents had an opportunity to share examples of tactics taken by their companies to improve retention, points out Perry. Following are a few examples.

Minnesota Freezer Warehouse Company

Focusing on daily communications with staff and promoting company culture through various ways has been effective at the family-owned company in Minnesota, says Charles T. Newell, President of Minnesota Freezer Warehouse Company.

“In the last two years we have incorpo-

About the Survey and Report Author:

The 2019 IARW North American Warehouse Employee Turnover Survey was created under guidance from a team of GCCA members and staff from the Market Intelligence and Research Committee and Human Resources Communities.

Data was analyzed and the final report was written by Victoria (Vicky) Salin, Ph.D., an Associate Professor in the Department of Agricultural Economics at Texas A&M University specializing in agribusiness management and finance. She is also a member of the WFLO Scientific Advisory Council. Her research specialty is in applications of real options theory to agribusiness investments, currently analyzing food safety risks and risk-shifting contracts. Her contributions to the industry include working with WFLO on many research projects including flagship reports like the Productivity & Benchmarking Report, Cold Chain Index and Global Capacity Report, among many others.

A copy of the full survey report can be found at the Human Resource & Talent Development hub on the GCCA website [www.gcca.org/resources/industry-topics/human-resource-talent-development] under the heading “Retention and Employee Engagement.”

To improve the employee experience and reduce turnover, please contact GCCA's Talent Management Service Partner and sponsor of this report, Plus Delta Consulting at 310.589.4600 or info@plusedelta.net.



2018	Average Turnover Rate Trailing 12 months	Change from 2017 to 2018 Data
● Northeast	18%	-15%
● Southeast	32%	-12%
● Heartland	33%	-9%
● West-Mountain	53%	-2%
● Pacific	30%	-1%

rated more informal meetings, and or standing meetings that are short in duration, typically nothing longer than 10 minutes,” Newell says. “We notice more feedback and more dialog in these settings since they are informal and typically in the warehouse versus the office, and our employees like that the informal meetings seem to address issues in a timely fashion.”

Giving workers a voice, and letting them see that their voice is recognized by management, is

an effective way to engage employees and to get them to take ownership in their work, he adds.

“Lastly, we have created an internal employee newsletter that typically covers topics on employee safety, healthy lifestyle, finance and cultural events,” Newell says. “Through our newsletter, we celebrate the culture that we have created, and we have celebrations that honor our employees through dinners, picnics, and awards.”

Newport-St. Paul Cold Storage Company

Improving his company’s retention of warehouse workers is the result of attention to wages, benefits and paid time off policies, says Drew Greenberg, President and CEO of Newport-St. Paul Cold Storage Company.

Ensuring that his company offers competitive wages requires evaluation of several factors. “We look at the flow of applications

based on the advertised job, experience of the candidate, local area and city wages of comparable jobs,” he says.

Wages are not the only way that his company stays competitive, Greenberg points out. “Employees are eligible for health insurance after 60 days, PTO (paid time off) eligibility is after 90 days and is accrued for each month the employee works at a rate of four hours

every month worked,” he explains. “Employees who have worked 90 days are also eligible for pay on company holidays as long as they work the day prior to and after the holiday.”

SnoTemp Cold Storage

Annual employee surveys as well as exit interviews with employees who choose to leave the company are two ways that

SnoTemp Cold Storage identifies ways to improve employee satisfaction and retention, says Mike Litten, Human Resource Manager. “This last year we also engaged the staffing agencies to help us determine why folks leave the assignment before being hired on a permanent basis,” he says.

“We grouped the data into management categories and discussed the results as a support services group with compliance, human resources and information technology representatives,” says Litten.

Once the team found common themes in areas that could be affected, annual projects that addressed specific issues were created and implemented. Most issues centered around training for new hires. “There’s not a lot we can do when somebody quits because ‘it’s just too cold.’”

The team also discovered that new employees were not aware of the strong benefits package that is available to permanent employees, says Litten. “We used to wait until they rolled over from temporary to full-time to dive into the details, but in this tough labor climate, we discovered that we need to get people excited about what we offer,” he says.

This transparency and letting people know what benefits are offered make people want to “stick around,” Litten explains. “We added a discussion of benefits to our onboarding program so that new employees don’t just hear about it from me, but also from supervisors and managers who use it to explain the benefits – both tangible and cultural – of working for SnoTemp.”

Data that helps GCCA members determine how their retention rates compare to other companies in their region or state is not the only resource available to members, says Perry. “The Human Resource & Talent Development hub on the GCCA website [www.gcca.org/resources/industry-topics/human-resource-talent-development] offers many ideas on how to reduce turnover by increasing the effectiveness of their recruitment, retention, onboarding, and employee engagement activities.”

SHERYL S. JACKSON is a freelance writer based in Alpharetta, Georgia, who specializes in industry issues and trends.

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IT'S EASY BEING GREEN

RLS Logistics takes steps to reduce energy consumption and protect the environment.

By Keith Loria

It was a little more than five decades ago when R. Leo & Son Mushroom Farm opened for business and over the last 50 years, the third-generation-owned company has transformed into RLS Logistics, a third-party logistics company headquartered in Newfield, New Jersey, that is one of the leading cold chain logistics providers in the Northeast.

The company prides itself on offering outstanding service to its customers, and the owners are hands-on in the daily management of the business, making key decisions for the greater good of the company, its clients, and the environment.

Energy consumption is normally one of the top expenses of a cold storage facility, which is why the company's strategy focuses on reducing waste and improving efficiency with



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a large number of green initiatives. Not only does it reduce RLS Logistics' carbon footprint, but it saves its clients money in the process.

"Energy is our number-two expense behind labor and we're always looking for different ways of cutting our energy usage and saving on our energy spend," says Anthony M. Leo, President and CEO of the company's warehousing group. "Our business and our industry has been green-focused long before 'sustainability' was a buzzword. We spend a lot of time focused on projects that come our way. Savings is great, but we are also getting the environmental benefits on top of it."

Seeing the Light

Over the past three years, the company outfitted each of its facilities with LED lighting — both interiors and exteriors, and any new projects that have been built utilize LED lighting as well.

"Our goals are to reduce their environmental impact and to dramatically improve the quality and quantity of light for employees," Leo says.

The company worked with SmartWatt Energy to perform a full-building audit of the lighting systems at its Pittston facility to discover potential energy-savings upgrades in the office and freezer warehouse.

The solution involved upgrading to fluorescent and sensor-controlled LED lighting fixtures, replacing T-12 fluorescent and metal halide lighting fixtures with T-8 fluorescents throughout the office space, and LEDs throughout the freezer warehouse and loading dock areas. This, Leo says, improved working conditions and enabled the company to decrease energy usage by 127.23 kW.

The Power of Renewable Energy

The company has also taken advantage of solar power and over the last few years has conducted intensive facility tune-ups to identify opportunities for optimizing energy-consuming equipment and systems at all RLS facilities.

RLS Logistics has done five solar projects to date, including two roof-mounted projects and a 10-acre-solar farm that will provide 100 percent of the power to its newest facility in Delanco, New Jersey.

"We also have a solar truck port at the Delanco facility. They are canopies that trucks can park under that have solar panels on them," Leo says.

Additionally, RLS Logistics worked with HelioSage, a national solar project development firm, to install a 257-kilowatt solar array on the roof of its 35-acre, Newfield-based logistics center, which offers more than 300,000 kilowatt hours a year, reducing greenhouse emissions

by as much as 200 tons per year. The corresponding reduction in greenhouse gas emissions is equal to removing 40 cars off the road or avoiding 70 tons of landfill waste each year.

Under a contract known as a Power Purchase Agreement, or PPA, RLS will simply host the solar array and pay a monthly power bill, allowing the company to go solar without any capital outlay.

The array will deliver energy cost savings

over the life of the system, which is expected to be at least 25 years.

Energy Management

The company's efforts in implementing a robust energy monitoring system to track energy consumption has led the way to many of these efforts.

"Our system is tracking our current performance for usage and compares against our

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RLS Logistics continues to look for ways to lower its carbon footprint and knows that it will take the help of all of its team members to continue being a success.

It's cost effective to install and run it, and from an environmental standpoint, it's seen as a positive."

Forging its Path

RLS Logistics continues to look for ways to lower its carbon footprint and knows that it will take the help of all of its team members to continue being a success.

"Our program has mainly been focused on training and awareness and letting our employees understand how energy is such a big expense for us, and that as employees in the building, they have a direct effect on that," Leo says. "A lot comes down to behavior and making employees aware. We will continue our efforts, to the best that we can, to ensure the health of the environment for the future." @

historical data, and what we're looking at is a predictive model that says, based on the volume that we have going on and based on the weather conditions, how much energy we should be using," Leo says. "We compare that against what we actually did use, just to make sure we're staying on track"

For its refrigeration systems at its Pittston location, the company installed all new control systems two years ago that sense and monitor different head and suction pressures and adjust as needed.

"At Delanco, we put in a CO2 refrigeration system, which really speaks to energy savings but also the environment and sustainability," Leo

says. "Typically, companies in our industry will put in a HFC-based system or ammonia system, and there are problems from an environmental standpoint with both of those systems."

Ammonia systems, while efficient and cost effective, use hazardous material, plus there are a lot of OSHA and EPA regulations surrounding them and employee safety issues related to them. In contrast, CO2 systems use natural refrigerant, have no OSHA concerns, and no ozone-depleting potential.

"The HFC-based system also has a lot of environmental issues, from ozone concerns to global warming," Leo says. "With CO2, you don't need to worry about that.

KEITH LORIA is an award-winning journalist who has been writing for major newspapers and magazines for close to 20 years, on topics as diverse as sports, business and technology.

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This year's IARW-WFLO Convention features an exciting opening keynote presentation by John Sileo, a man who lost everything to cybercrime.



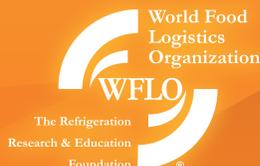
Don't miss his presentation *The Hacker's Blacklist: Critical Cybersecurity Threats & Solutions*

An interruption in the security and efficiency of the cold chain industry could be devastating to the local, national and international food system. To avoid becoming the next disastrous data-breach headline, you must foster a healthy culture of security that addresses both the technological and human elements of data defense.

This highly-interactive presentation builds on John's experience losing everything to cybercrime, continues with a live hacking demo of an audience member's smartphone and ends with an actionable Roadmap of Next Steps.



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128th IARW-WFLO
Convention

THE 128TH IARW-WFLO CONVENTION

Advancing cold chain warehousing and logistics.

By Alexandra Walsh

The 128th IARW-WFLO Convention, to be held at the Hyatt Regency Tamaya Resort & Spa, Santa Ana Pueblo, New Mexico, April 7-10, 2019, is the world's leading conference dedicated to bringing together senior-level executives of temperature-controlled warehousing and logistics companies and senior-level industry suppliers to forge, renew and grow relationships.

The Convention will offer an exciting educational experience including four keynote speakers focused on trends and business challenges impacting your company. Gone are the Focus Sessions and in their place you will hear from Cool Innovators and have more opportunities to network in an educational format.

Through robust programming focused on business outcomes, the convention delivers an education program intended to help solve the most significant cold chain business challenges. The educational program is designed for senior-level warehousing and logistics executives looking for solutions to key business challenges and opportunities. Experts and innovators will share their knowledge of how to lead the cold chain, drive supply chain profitability, develop talent, and achieve operational excellence.

Prominent social activities, receptions, and the Supplier Showcase give industry suppliers unparalleled access to build partnerships with warehousing and logistics leaders.

Keynote Speakers



There will be four keynote speakers at the Convention.

John Sileo, the keynote speaker who will present at the Opening General Session and Luncheon, will address,

“The Hacker’s Blacklist: Critical Cybersecurity Threats & Solutions.” Sileo is CEO of The Sileo Group, a privacy think tank that helps organizations protect the privacy that drives their profits.

Sileo contends that an interruption in the security and efficiency of the cold chain industry means a potential interruption to the local, national and international food system. While third-party logistics may not be considered an obvious target for large-scale security threats, the ramifications of such a breach can be crippling.

To avoid becoming the next disastrous data-breach headline, Sileo says that business

leaders must foster a healthy culture of security that addresses both the technological and human elements of data defense.

He notes that change happens when you create energy and buy-in among the people who handle your mission-critical information. When it comes to the latest data security threats, you can’t possibly do everything — but you must do the right things.

This session will help attendees forge a high-level, non-technical path through the often-confusing web of human decision making, cyber defense, mobile tracking and traceability, IoT, social media and cloud computing — critical components to business success. The highly interactive presentation builds on John’s experience losing everything to cybercrime, continues with a live hacking demo of an audience member’s smartphone and ends with an actionable roadmap of next steps.

Peer To Peer Executive Discussions

Peer to Peer Executive Discussions provide attendees a chance to share ideas, ask questions, and solve problems with their peers in a small group. The moderator will guide the participants through questions that they have submitted in advance to talk about, diving in to the subjects that matter most to executives in the cold chain industry.

Cool Innovators

Within the cold chain industry, there are leaders who are innovating in human capital

development, cost-savings, and timesavings. The presenters for these sessions are IARW warehouse members, like you, who have made an impact on the industry through their innovations. Hear about their perspectives during “Cool Innovators.” Attendees will have the opportunity to listen to two of these presentations.

Tech Talks

Industry thought-leaders will deliver informative presentations on innovations in the cold storage industry. The IARW Education team works with Tech Talk presenters to create a high-level industry perspective on how their solutions, tools and/or technology can help support their customers’ businesses and how they see the industry evolving.

Don’t miss these exciting presentations to see the future of cold storage. Tech Talks will take place during the General Session.

Networking Events

Coffee in the Supplier Showcase is just one of many networking opportunities for attendees. Others include a first timer and new member reception, an opening night reception, an afternoon set aside to catch up with peers and vendors for private business meetings, a golf classic at the Twin Warriors Golf Club, one of the most prestigious golf groups in the Southwest, and back by popular demand, the Southwestern “Frazier Party” Rodeo Bonanza will take place on Monday night of the Convention. ☺

ALEXANDRA WALSH is a Senior Publishing Consultant with Association Vision and Managing Editor of COLD FACTS.
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Who Attends the IARW-WFLO Convention

Register now for the 128th IARW-WFLO Convention at www.gcca.org/128th-iarw-wflo-convention/.

Attendee by Company Type



53% Warehouse
47% Supplier



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The deep lane storage system eliminates additional warehouse space for aisles. (Photo courtesy of Frazier Industrial Company.)

FINDING THE RIGHT RACK

Case study examines how the Pallet Mole® optimizes storage density.

When Nor-Am Cold Storage was setting up its new 600 inch-high (50 feet) cold storage facility in Le Mars, Iowa, the company quickly realized it had to find an agile rack solution in order to meet its product storage needs.

A key driver to finding the right rack solution was to maximize storage density at the site. The company evaluated several racking solutions including push back, drive-in and double-deep, however, none of these applications were ideal for the customer loads that would be stored there.

With facilities spanning five Midwest states, Nor-Am had worked with Frazier Industrial Company previously to meet its racking needs and was confident in Frazier's structural steel storage racking solutions along with its engineering and design expertise. In addition, Nor-Am and Frazier have a solid relationship

built on trust, expertise, understanding and communication, so it was a natural fit for the two companies to work together to determine the best solution for the Le Mars facility.

Frazier's team understood Nor-Am's needs, and they were confident an ideal rack solution could be designed that would provide maximum value to Nor-Am. To begin with, Frazier recommended implementing a structural rack, rather than roll formed, to provide long-term durability and safe operation.

Frazier's recommendation of the Pallet Mole® as the optimal rack solution was the best choice. The semi-automated deep lane storage system achieves increased density by

eliminating additional warehouse space for aisles while helping to minimize fork truck damage to the rack — rack damage is very common with roll formed applications.

The Pallet Mole® was utilized for over half the pallets stored in the facility — 150,000 cubic feet of space comprised of 76 bays of rack with 22 pallet deep aisles. The rest of the facility’s storage needs were met by utilizing a durable double-deep rack system.

The fork truck interfaces with the Pallet Mole® at a height of 492 inches (41 feet). Although early on, both teams were concerned about securing the unit to the forklift forks, open dialogue between the Nor-Am and Frazier teams led to solving these concerns by adding electro-magnets as a safety “latching” device. The Pallet Mole® is equipped with two magnets, each rated for 1,200 pounds, that securely hold the Pallet Mole to the forks. The latches automatically engage when lifting units from the rack and automatically disengage when units are placed back on the rack.

A camera mounted on the forklift forks further aides in handling units at higher elevations.

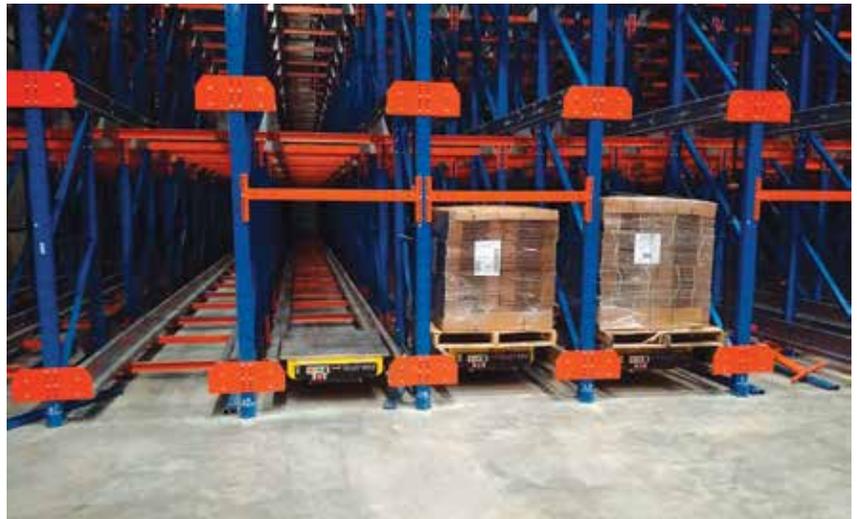
Along with Frazier’s structural rack, additional design elements were an important part of the equation that made it the right solution for Nor-Am. These include the Pallet Mole’s two large axles that bear 100 percent of the weight of the system in order to keep the internal mechanics safe. The stainless steel 33.25 by 48 inch flat deck lifting platform engages the bottom of the pallet, including under the center stringers. And a 24 volt DC lithium battery with brushless AC motors provides excellent runtime in the below zero environment.

Nor-Am’s pallet storage capacity increased by 55 percent by employing the Pallet Mole. In addition, the 22-pallet-deep aisles allowed for greater storage volume, increased productivity in material handling and cut overall costs across the facility’s operation by reducing the number of lift truck drivers and increasing revenue with the additional number of pallet positions stored.

“The Pallet Mole quickly showcased its value in maximizing our storage capacity, proving that it was a smart investment for our company,” says Greg Brandt, CEO of Nor-Am. “We continue to value Frazier’s relationship and their dedication in working with us to stay on top of the cutting-edge innovations that are the future of the 3PL cold storage industry.”



A camera mounted on the forklift forks further aides in handling units at higher elevations. (Photo courtesy of Frazier Industrial Company.)



One of the Pallet Mole’s benefits is the ability to maximize storage capacity. (Photo courtesy of Frazier Industrial Company.)



The Pallet Mole® was utilized for over 150,000 cubic feet of space comprised of 76 bays of rack with 22 pallet deep aisles at the Nor-Am facility. (Photo courtesy of Frazier Industrial Company.)

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THE WFLO INSTITUTE CLASSROOM

Intense experience sparks enthusiasm internationally

This column features news about key projects of the World Food Logistics Organization (WFLO), a GCCA Core Partner, and its work with members, aid organizations, and international development partners to help emerging economies and lower-income countries meet the challenges that arise when growing a safe and efficient global cold chain.

For more than 50 years, the World Food Logistics Organization (WFLO) Institute has provided an immersive, three-year-long classroom experience offering more than 40 classes covering a range of topics to educate cold storage industry representatives on best practices, technical information and processes to ensure the safe, efficient and reliable movement of food globally.

The Institute's three-year program primarily served the United States for most of these years – expanding from a single Institute offering in one location to two Institutes located on the East and West Coast in 2017. The Latin American Institute was first held in Panama in 2014, before moving to Mexico in 2017 to be closer to a larger, more developed market to make travel simpler and more affordable for the majority of attendees.

Because response to the three-year program has been so successful in the United States, with thousands of graduates gaining critical knowledge that improves the cold chain, identification of opportunities to build on international experience in Latin America to expand intensive training to other countries is a focus for upcoming years. Through the work that GCCA does on international projects, the international team is looking at how project experience and information can be used to determine where and how to successfully launch Institutes in other regions.

"CEOs from North America and Europe send their best and brightest to this program," says Richard Tracy, Director of International Programs for GCCA. "We have had a number of attendees over the years from other countries such as the Philippines and India, just to name a couple, that demonstrate there is a global demand for quality training programs."

Although companies from a wide range of

countries send employees to the U.S. or Latin America Institute, Tracy admits that travel to North America may not be possible for some companies in other countries or regions.

"WFLO offers short courses as a way to bring training closer to home and to gauge the opportunity for a full-scale Institute," Tracy explains. "We are always talking with cold chain representatives from other regions about training needs and how we can help them meet them."

International Institutes present the same curriculum presented in the U.S. Institutes although the subject matter and case studies referenced are adjusted to best fit the local market,

WFLO Educates and Informs Cold Storage Industry

The World Food Logistics Organization (WFLO) provides education and technical information about the proper handling and storage of perishable products and the development of systems and best practices for the safe, efficient, and reliable movement of food to the people of the world. In addition to the WFLO Institute, short courses, online learning, and webinars along with conferences, provide educational opportunities globally.

For more information about how WFLO can meet the educational or technical support needs in a specific country or region, call Amanda Brondy at 703.373.4309 or abrondy@gcca.org or visit www.gcca.org/wflo-institute.

Tracy says. For example, employee safety is always discussed, however, in some markets that means using forklift safety as a case study but in other markets, where forklifts might not be used, that means employee safety is discussed in terms of basic ergonomics and heavy lifting.

A recent trip to India provided some valuable insight for Amanda Brondy, Director of International Projects for GCCA. "The lack of a cold chain that meets U.S. regulatory requirements is a barrier to trade with India so we wanted to discuss training and consultation services that would enhance their cold storage practices," she says.

Representatives of the Indian industry were not receptive to training for which they have to pay because the government provides free training, says Brondy. Even with the free training, employers don't take advantage of the courses, she adds. "We wanted to provide education that would be impactful, so we were not discussing one-off training, we wanted to create education with short- and long-term effects."

The mood of her audience changed when Brondy described the three-year classroom Institute program that ends with a certificate of completion. "The level of interest shifted and there was more enthusiasm, with many saying that they would pay for a certificate program," she says. "This points out the difference between U.S. and international groups – there is a greater interest in earning certificates among international companies."

This "ah-ha" moment is encouraging for WFLO, which can provide a high-level of technical and best practice education that is not available elsewhere, says Tracy. "The idea to develop the cold chain expertise of employees is a new concept for employers in other countries," he says. "We know that the best way to attract and retain good employees who can grow and improve the company is to ensure they have the training they need to develop their skills," he adds. "Of course, the entire temperature-sensitive food handling industry benefits from education that enables all global trading partners to guarantee delivery of safe, quality products." 📧

COOL SOLUTIONS

SCIENTIFIC ANSWERS TO COLD CHAIN CHALLENGES

This column highlights a cold chain question and answers submitted through the GCCA Inquiry Service to the team of experts on the WFLO Scientific Advisory Council (SAC).

To get instant advice from a private, online community of over 4,000 cold chain professionals, simply post your inquiry in the GCCA Online Community. All GCCA Members and their employees can access the GCCA Online Community at community.gcca.org/home. There are active forums for Construction & Engineering, Government Affairs, and Third Party Logistics.

If you are not a GCCA member, or are unsure how to post in the GCCA Online Community, contact the GCCA Inquiry Service at www.gcca.org/resources/industry-topics/gcca-inquiry-service. GCCA Members can also browse the full archive of inquiries and responses in the GCCA Inquiry Service Archive. Access to previous inquiries is restricted to members of GCCA core partner organizations.

Q: We have a facility with an ammonia (NH₃) refrigeration system that was decommissioned about six months ago. As part of the decommissioning process, the ammonia was removed from the system and Process Safety Management (PSM) programs

were halted. We have decided to use the refrigeration system again and would like to know the process and requirements associated with OSHA and EPA approvals. We are concerned that with missing (not taken) PSM records it will be more difficult to recommission the

system properly. What information and support can you provide?

A: Since the NH₃ was removed from the system as part of the decommissioning process, the absence of PSM paperwork should not be a concern when re-commissioning. The original PSM protocols, however, will be useful in drafting the new PSM program for the startup and operation of the facility. If you are looking for reference information on proper recommissioning steps, I suggest contacting IAR (International Institute of Ammonia Refrigeration) for its white paper on recommissioning NH₃ systems. Furthermore, I suggest that you contact a reliable technical team in the area to re-draft the PSM program, do a systems integrity check, re-charge the system, and assist with the OSHA and EPA oversight requirements. I am happy to provide you with some contacts in the area. ☺

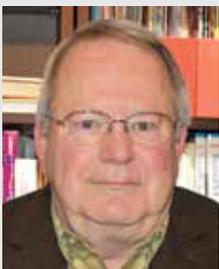
Answer provided by the Scientific Advisory Council's Dr. Don Fenton, Kansas University.

SAC MEMBER SPOTLIGHT



DR. DENNIS HELDMAN, Professor, The Ohio State University

Dennis R. Heldman was awarded B.S. (1960) and M.S. (1962) degrees from Ohio State University, and PhD (1965) from Michigan State University. In 1966, he joined the faculty at MSU. In 1984, he became Vice President of Process R&D at Campbell Soup Company and then moved to the National Food Processors Association as Executive Vice President of Scientific Affairs in 1986. In 1991, Heldman joined the Weinberg Consulting Group, Inc., and was appointed Professor at the University of Missouri in 1992. From 1998 to 2004, Heldman was Professor at Rutgers, the State University of New Jersey and was a consultant involved in applications of engineering concepts to food processing from 2004 to 2012. In August 2012, he joined the faculty at Ohio State University as Dale A. Sobering Endowed Professor of Food Engineering. He is involved in teaching and research with a focus on sustainability of the food system.



DR. DONALD FENTON, School of Engineering, Kansas State University

Don Fenton is a Professor of Mechanical Engineer at Kansas State University located in Manhattan, Kansas. He has been a member of the SAC for a number of years and his specialty is industrial refrigeration, especially the systems using ammonia as a refrigerant. As a member of the SAC, Fenton provides answers to inquiries regarding the design and operation of refrigeration systems for GCCA members. Recently, he conducted research projects concerning risk analysis of accidental ammonia releases from refrigerated warehouses and food processing plants, numerical predictions of the freezing and thawing of food products, and the flow of vapor and liquid mixtures in ammonia piping. As the Subcommittee Chair of ASHRAE's 2018 Refrigeration Handbook, he involved most of the SAC members to review and update its chapters relating to food products, thereby significantly improving it. He has completed a chapter introducing refrigeration for the book that fellow SAC member Dr. Elhadi Kazuz is assembling for the United Nations concerning post-harvest cooling. Since 1992, he has coordinated, directed, and presented at the IAR Industrial Refrigeration Workshop, which has introduced over 2,100 engineers and technicians to industrial refrigeration and whose objective is improving design, operation, and safety of refrigeration systems.

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APRIL 7-10, 2019

128th IARW-WFLO Convention
Santa Ana Pueblo, New Mexico,
United States

JUNE 10-12, 2019

2019 Global Cold Chain Expo
Chicago, Illinois, United States

JUNE 11, 2019

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JULY 15-17, 2019

WFLO Institute Latin America
Mexico City, Mexico

JULY 28-31, 2019

GCCA Cold Chain Policy Forum
Washington, D.C., United States

NOVEMBER 3-5, 2019

**2019 GCCA Latin America Cold Chain
Conference**, Mexico City, Mexico

NOVEMBER 14-16, 2019

39th CEBA Conference & Expo
Miami, Florida, United States

FEBRUARY 9-12, 2020

56th WFLO Institute East
Atlanta, Georgia, United States

MAY 5-8, 2020

129th IARW-WFLO Convention
Bonita Springs, Florida,
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NOVEMBER 10-12, 2020

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*For more details go to
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Amana Contracting & Steel Buildings

Co. LLC

Dubai, United Arab Emirates

ISOPAN SPA

Verona, Italy



IRTA MEMBERS

Approved Cold Storage

Burlington, Ontario, Canada

Berle Transport Pty Ltd

Ingleburn, New South Wales,

Australia

Integron

Rochester, New York,

United States

Seaboard Cold Storage, Inc.

Tampa, Florida, United States

Sierra Supply Chain Services

Hamilton, Ontario, Canada

ASSOCIATION NEWS

NEWS ABOUT GCCA CORE PARTNERS

GCCA President and CEO Corey Rosenbusch is the Chair of the Small Business Legislative Council (SBLC). He began his one-year term in February 2019. SBLC is an independent, permanent coalition of national trade and professional associations with a goal to maximize the advocacy and presence of small business on U.S. federal legislative and regulatory policy issues and to disseminate information on the impact of public policy on small businesses. The top priorities of SBLC for 2019 will be addressing the labor shortage for small businesses, tax reform, infrastructure and rural development, trade, and health care. These priorities were determined by the SBLC Board of Directors and members.



An interruption in the security and efficiency of the cold chain industry means a

potential interruption to the local, national and international food system. While third-party logistics may not be considered an obvious target for large-scale security threats, the ramifications of such a breach can be crippling. To avoid becoming the next disastrous data-breach headline, your company must foster a healthy culture of security that addresses both the technological and human elements of data defense. John Sileo will discuss this important topic during his keynote session, “The Hacker’s Blacklist: Critical Cybersecurity Threats & Solutions,” at the **IARW-WFLO** Conference April 9-11, 2019 in Santa Ana Pueblo, New Mexico, United States.



IARW Warehouse Members have access to the only performance and benchmarking

data for the temperature-controlled warehousing and logistics industry. The online benchmarking platform allows participants to compare their warehouse operations to others in the industry, evaluating their performance in valuable KPI categories such as Labor Expenses, Power Expenses, Inventory Turns and Product Throughput. In addition to the online platform, the **IARW** Productivity and Benchmarking Executive Summary provides a comprehensive overview of the results of the survey data in an easy-to-understand narrative. The report is an invaluable resource to help you better understand what the data means.



Each year, **WFLO** awards scholarships to industry professionals to cover tuition and

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ENERGY EXCELLENCE

The GCCA Energy Excellence Recognition Program was designed to help your warehouse facility:

- ✓ GET AN ACCURATE PICTURE OF YOUR ENERGY CONSUMPTION OVER A PERIOD OF TIME
- ✓ LEARN ABOUT YOUR FACILITY'S CULTURE AROUND ENERGY USAGE
- ✓ IMPROVE ENERGY EFFICIENCY
- ✓ GAIN RECOGNITION FOR YOUR EFFORTS TOWARDS IMPROVED ENERGY USAGE
- ✓ EXPLORE RESOURCES TO IMPROVE FOR THE FUTURE

The following companies have already made a commitment to improving the cold chain:

Americold Logistics	Merchandise Warehouse
Congebec Logistics	Newport-St. Paul Cold Storage, Co.
Hanson Logistics	

Learn how you can participate at www.gcca.org/energyexcellence

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Food manufacturers...send your supply chain managers to learn and build relationships with service providers

Controlled environment contractors...leverage the educational offerings to learn what your customers are focused on and connect with subcontractors



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Co-location partners:



www.GlobalColdChainExpo.org
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ASSOCIATION NEWS

NEWS ABOUT GCCA CORE PARTNERS

related expenses for the WFLO Institute program. Recipients are selected based on their performance, leadership skills, and dedication to the industry. In 2019, the following individuals were awarded scholarships. Luis Santiago, Inventory Control Manager, Agro Merchants and Ray Galan, Food Safety & Sanitation Manager, Premier Refrigerated Warehouse attended the WFLO Institute East at GeorgiaTech in Atlanta, Georgia in February 2019 and Roo Standeford, Operations Manager, Interstate Warehousing and Philip Hayes, General Manager, T.C. Trading Company will attend the WFLO Institute West at UCLA in Los Angeles, California in March 2020. Scholarships in 2019 were funded/ sponsored by Refrigiwear (2), Groom Energy (1) and Alta Refrigeration (1).

The **IRTA** Certified Cold Carrier program is in a test phase with five carriers piloting the program ahead of a public launch of the certification in June 2019 at the Global Cold Chain Expo. The program was developed to recognize carrier companies for what they do on behalf of the cold supply chain and how their efforts support operational best practices. The program objectives were approved at the June IRTA Board meeting and program development has progressed through the appointed Certified Cold Carrier Task Force supported by GCCA staff. The Task Force gained approval from the IRTA Board in January to move forward with the pilot program.



Fisher Construction Group was named the winner of the Controlled Environment Building Association (**CEBA**) Built by the Best Award for its project with NewCold in Tacoma, Washington, United States. The award was given during a general session at the 38th CEBA Conference & Expo in November 2018. The project is NewCold's first cold storage facility in the United States and only the second low-oxygen, high-bay freezer in the country. It serves multiple customers and delivers safe, sustainable, traceable cold chain solutions that are designed for end-to-end efficiency and value. The submission process for the 2019 CEBA Built by the Best Award will open in Spring 2019.

COLD CHAIN INNOVATIONS



GCCA MEMBERS REDUCE ENERGY DEMAND AND BECOME FSMA COMPLIANT

Longtime GCCA member and cold chain logistics provider Gordon Food Services was searching for efficiency technologies to help reduce energy expenses for their Miami warehouses and comply with the Food Safety Modernization Act (FSMA). They were experiencing internal icing and very high energy costs, particularly due to a frozen roof deck and vapor barrier discontinuity.

GFS found fellow GCCA member Vapor Armour, Inc. as a potential solution to their challenges. Vapor Armour, Inc. provides applied thermal building envelope technology that enables the vapor barrier to flex, keeps vapor drive out from contaminating insulation and contaminating the freezer/cooler warehouses (FSMA compliance), and promotes energy savings to the energy-intensive, low-temperature cold storage industry. Their Vapor Armour™ Building Envelope System consists of the installation of their flexible vapor barrier membrane, DOW STYROFOAM™ BRAND DECKMATE™ Plus (XPS) Insulation, and a Duro-last PVC roof as installed by Royalty Roofing. The company's technology comes with an industry-leading NDLE (No Leak. No Condensation. No Ice. No Cost) 20-year warranty covering the whole

building envelope (roof, insulation and vapor barrier). This, of course, provides their customers with reduced energy costs, FSMA compliance, and increased refrigeration efficiencies guaranteed for 20 years.

The building envelope system (Vapor Armour Exterior Compression Seal, Vapor Armour Interior Separation Wall seal, DOW insulation and Duro-last roofing membrane) was installed over the entire warehouse. Once installed, GFS experienced an immediate reduction in refrigeration equipment run time and significant energy reduction. These impacts were realized because Vapor Armour and Royalty removed over 450,000 pounds of ice-contaminated PolyIso insulation having no R-value and sealed the building envelope (roof and vapor-barrier), which was causing at least 80 percent of the vapor/heat infiltration. Their daily energy demand has been reduced by as much as 50 percent while also reducing total energy consumption by as much as 40 percent.

"The Vapor Armour Building Envelope System has delivered increased refrigeration flexibility and significant energy savings that directly improve our facilities and our bottom line. We no longer experience any internal icing for FSMA compliance," says Javier Otero, Maintenance Supervisor, GFS Miami.

MEMBER NEWS

NEWS FROM MEMBERS OF GCCA CORE PARTNERS

COLDPOINT LOGISTICS completed Phase III of its cold storage distribution facility project at Logistics Park Kansas City in Edgerton, Kansas, USA. The 16.2 million cubic-foot, temperature-controlled distribution facility features automated racking and blast freezing. Located at the hub of the BNSF Railway intermodal yard in Kansas City, the facility is positioned to provide warehousing and distribution services for temperature-controlled products transported across the United States to the East and West Coasts for export.

“Our goal in this project is to build partnerships within the supply chain to enhance the services offered to our customers and offer new solutions to the growing global food logistics community,” said ColdPoint CEO Thom Smith. ColdPoint has completed three of the four phases it has planned for the facility. Construction on Phase IV is scheduled for 2019.



ColdPoint executives and honored guests conducted the ribbon cutting of the company's new facility.

EMERGENT COLD acquired Montague Cold Storage facilities in Melbourne, Australia. This acquisition complements the broader Emergent Cold strategy of acquiring and developing a global network of cold chain businesses. In other news, Finlays Colombo Limited signed an agreement to transfer its temperature-controlled logistics business in Sri Lanka to Emergent Cold.

CLOVERLEAF COLD STORAGE merged with **ZERO MOUNTAIN**. With approximately 140 million cubic feet of capacity in nine states, and a presence in all three major protein production corridors, the combined companies will become the fifth largest cold storage warehouse in the United States.

HANSON LOGISTICS was awarded the Safe Quality Food (SQF) Certification, Edition 8, by the Safe Quality Food Institute (SQFI). The certification was awarded to the company's Hartford, Michigan, USA temperature-controlled facility. While all Hanson Logistics warehouse facilities are certified by various safety and quality organizations, the company's Hartford, Michigan facility is the first of Hanson's eight warehouses to become SQF Certified. The newer SQF Quality Code, Edition 8, focuses on both safety and quality, with additional emphasis on senior management and continuous improvement.

In other news, the company promoted Ken Whah to President and CEO. Whah previously held the position of COO since joining the company in October 2017. Jim Reits, who held the position of Interim President and CEO for the previous six months, has been elected to the Board of Directors and his role with the organization has also been expanded to President, CEO and CFO of the Hanson Group.



The Hanson Logistics facility in Hartford, Michigan, now has SQF certification.

INTERSTATE WAREHOUSING continues to expand its cold storage distribution center in Murfreesboro, Tennessee, USA. The latest expansion will add 115,000 square

feet and 16,000 pallet positions to the warehouse. Fifty new jobs will be created as a result of the project. The facility was originally built in 2006 and has grown through several expansions. When the addition is complete, the facility will occupy 500,000 square feet.



The Interstate Warehousing distribution center in Murfreesboro, Tennessee, is undergoing an expansion.

REED BOARDALL appointed Stevland Town as business development manager. Since joining the company in 2001 in an administrative role, Town has progressed through a number of positions including spending eight years as warehouse manager and four years as operations manager.



Andrew Baldwin (left), Stevland Town (center) and Graeme Richardson (right) of Reed Boardall.

TIPPMANN INNOVATION completed a new meat processing and cold storage facility for Wolverine Packing Company near Detroit, Michigan, USA. The 180,000-sq. ft. warehouse provides Wolverine with its fifth processing plant and a second freezer with capacity to store 20,000 pallets. ☞



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