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### About the Cover

WEL Companies was one of a handful of carrier companies that participated in a pilot program for the Certified Cold Carrier program. Participants discuss the certification experience in the article on page 10 (Photo courtesy of WEL Companies.)





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# **Canada Welcomes Vapor Armour**

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Additionally, we are in discussions with numerous facilities in Quebec, Nova Scotia and British Columbia for future projects. We feel extremely fortunate to service projects in Canada and look forward to further establishing our presence there.



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# LEADOFF

MESSAGES FROM GCCA LEADERS

# **IRTA Adding Value to Membership**

N THE EVOLVING WORLD of cold chain carrier shipping, there is one constant: The value of membership in the International Refrigerated Transportation Association (IRTA).

That value is more evident than ever this year, as IRTA completes the launch of its groundbreaking Certified Cold Carrier program, organized by the Global Cold Chain Alliance (GCCA) and based upon the IRTA Refrigerated Transportation Best Practices Guide. (See the article, "The Road to Certification," on page 10 of this issue of COLD FACTS.)

Several carriers provided important feedback on the Certified Cold Carrier program, which is a valuable third-party certification program that demonstrates to shippers, government officials and third-party auditors that certain carriers have met stringent standards for cold chain transportation best practices.

In an industry where most refrigerated transportation carriers are smaller fleets, earning the Certified Cold Carrier designation instills confidence that the carrier follows the IRTA Refrigerated Transportation Best Practices Guide and the personnel operating the fleet are also knowledgeable about the best practices.

Although the impetus for this program was prompted by the U.S. Food and Drug Administration (FDA) rule for the Sanitary Transportation of Human and Animal Food, implemented in 2016, the program is designed to certify carriers globally. The rule places responsibilities on both shippers and carriers, and the Certified Cold Carrier program gives shippers confidence that the certified carriers they work with are operating with a solid knowledge base.

The Certified Cold Carrier represents just the newest benefit offered by IRTA. The long list of IRTA benefits helps carriers and shippers improve their operations, grow their businesses, connect with a global network, drive industry growth, and build credibility and recognition.

Expert guidance from food scientists and industry experts through the GCCA Inquiry Service is just a phone call or email away. The GCCA library of technical resources is another popular benefit. Updates on trends and technology are delivered continually through COLD FACTS magazine, the Cold Connection e-newsletter, and GCCA webinars. The IRTA Driver Training Program is one of many educational opportunities offered, and discounts on legal advice and services are available through Scopelitis Garvin Light Hanson & Feary, a law firm that specializes in transportation legal issues.

IRTA also has a presence at key industry events such as the Global Cold Chain Expo, Seafood Expo North America, CSCMP Supply Chain Exchange, and PACK Expo. These provide unparalleled networking opportunities for individuals working in cold chain transportation to network with peers, colleagues, customers, and partners throughout the global cold chain. This networking extends to the GCCA Online Community, which provides members-only forums to discuss critical issues facing the industry and tap the knowledge of this community.

IRTA members are listed in the GCCA Cold Chain Directory – a key resource for shippers and other end-user customers.

Finally, please consider that IRTA is focused on you and your company's brand integrity – it is an association of temperature-controlled carriers and industry leaders invested in the growth and success of cold chain transportation. Your input and participation is essential for our development and continued leadership in the industry. If you are already an IRTA member, I thank you. If you have not yet joined but would like to learn more about membership and the resources available to your company, please contact Alice Schneider, IRTA's Director of Membership at aschneider@ gcca.org / +1-703-373-4300. **②** 



TODD LANTER IRTA 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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# FOCUSING ON FOOD DEFENSE

# Government, law enforcement and industry meet to address protecting the food supply chain.

# By Lowell Randel

he federal government in the United States is increasing its focus on food defense. Food defense is defined as the protection of food products from contamination or adulteration intended to cause public health harm or economic disruption.

The food and agriculture industry represents approximately \$1 trillion of the nation's economy and includes over 2 million farms, over 200,000 registered food facilities and almost 1 million restaurants.

The government considers the food supply chain a "soft target" for deliberate attack. The food supply chain is decentralized, with multiple entry points, making security and defense more complex. The number of fictitious pick ups, cargo thefts and cyberattacks has been increasing and approximately 25 percent of all cargo thefts involve food products. In addition to the economic consequences of food defense, there are potential health consequences to food that is either intentionally adulterated or diverted and not maintained in a safe manner.

The government is working to help industry strengthen its defenses against these threats. While some government action has been regulatory, such as the Food Safety Modernization Act rule on Mitigation Strategies to Protect Food Against Intentional Adulteration, there are also efforts to provide industry with guidance, tools and best practices to improve food defense.

The Department of Homeland Security (DHS), in partnership with the United States Department of Agriculture (USDA), recently held a tabletop exercise in Miami, Florida, to examine trucking and food defense. The event was led by the Transportation Security Administration Intermodal Security Training and Exercise Program (I-STEP).

The purpose of the exercise was to bring together federal, state and local government with law enforcement and industry to discuss and address threats to food defense. GCCA members provided critical insights into how the third-party logistics industry is addressing food defense and cargo security.

Specific topics included:

- Evaluating intelligence and information sharing among food defense, food transport and law enforcement partners.
- Identifying food defense threats and vulnerabilities associated with the commercial transportation of meat products.
- Assessing how food defense, food transport and law enforcement stakeholders select, resource, and implement physical, technological, and cybersecurity measures and policies to protect against food defense threats.
- Evaluating the ability of food defense, food transport, and law enforcement partners to communicate and coordinate efforts in response to a food defense incident.

The results of the exercise are now being evaluated by the sponsoring agencies to evaluate potential next steps, including the development of best practices or other resources to support food defense.

# Available Food Defense Resources

Below are examples of resources available to industry:

## Food Safety Inspection Service

www.fsis.usda.gov/FoodDefense

- Food Defense Guidelines for the Transportation and Distribution of Meat, Poultry, and Processed Egg Products
- Guide for Security Practices in Transporting Agricultural and Food Commodities
- FSIS Food Defense Risk Mitigation Tool

• Food Defense Preparedness and Recall Exercise Package (FD-PREP)

#### Food and Drug Administration

www.fda.gov/FoodDefense

- Food Defense Plan Builder
- Food Defense 101-Front Line Employee
- Food Related Emergency Exercise Bundle (FREE-B)
- Food Defense Mitigation Strategies Database (FDMSD)

#### **Transportation Security Administration**

www.tsa.gov/for-industry/surfacetransportation

- TSA Highway Motor Carrier Security Materials: Trucking Counterterrorism Guides, First Observer Plus Training Materials
- TSA T-START security guidance modules
- Surface Transportation Cybersecurity Toolkit

#### Cybersecurity & Infrastructure Security Agency ics-cert.us-cert.gov/downloading-andinstalling-CSET)

Cyber Security Evaluation Tool (CSET)

## National Institute of Standards and Technology www.dhs.gov/publication/tss-cybersecurity-

framework-implementation-guide)

• Transportation Systems Sector Cybersecurity Framework Implementation Guide

Cyber security was a major focus at the 2019 IARW/WFLO Convention, with multiple sessions covering preparedness and response. GCCA also recently sponsored a webinar conducted by insurance service partner Lockton to address the emergence of cyber insurance. GCCA will continue to work with members, partners and government to strengthen food defense across the cold chain. **@** 

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## By Alexandra Walsh

# **COVER STORY**



# THE ROAD TO CERTIFICATION

Participants in the Certified Cold Carrier pilot program share their experiences.

n an effort to assist carriers to conform to the Sanitary Transportation of Human and Animal Food rule, part of the implementation of the Food Safety Modernization Act (FSMA), the board of directors of the International Refrigerated Transportation Association approved the development of a Certified Cold Carrier in June 2018.

The Certified Cold Carrier is organized by the Global Cold Chain Alliance and based upon the IRTA Refrigerated Transportation Best Practices Guide. (See "Certified Cold," Cold Facts, May-June 2019.)

The board also approved the implementation of a pilot program made up of seven companies including Midwest Refrigerated Services, Inc.; FFE Transportation Services, Inc.; Great Plains Transport; KeHE Distributors; Trailiner Corp.; WEL Companies and J.B. Hunt. The participating carriers provided vital feedback on the process as well as the relevance and practicality of the Certified Cold Carrier program requirements. Several of the pilot program participants discussed the certification experience during a panel discussion at the launch of the Certified Cold Carrier program at the Global Cold Chain Expo in June 2019. Moderating that panel discussion was Don Durm, Vice President at PLM Trailer Leasing and IRTA Board and Certified Cold Carrier Task Force member.

"Basically, the Certified Cold Carrier process employs the GCCA Best Practices Guide as a road map to best practices allowing participating carriers to do a gap analysis or mini-audit of their FSMA compliance," Durm says. "Once certified, Certified Cold Carrier program gives trucking companies confidence about compliance – they know they've got it down."

Here's what Certified Cold Carrier pilot program participants have to say about their certification experience.

#### Motivated to Certify

Tom Hardin, Corporate Equipment Manager with KeHE Distributor says, "What motivated us to become certified was that we wanted validation that our internal documentation and processes met and exceeded the stringent guidelines for best practices set by GCCA."

Durm notes that Certified Cold Carrier program is an enormously helpful process in ensuring that all the documentation needed for compliance is in order. "FSMA compliance requires accurate record keeping and consistency across all the networks of facilities a trucking company might operate. For instance, training records for every facility have to include date of training, driver names, type of training – certification challenges operators to have source records and just as important, know where they are located."

Durm adds that in the case of training, certification not only helps companies with training recordkeeping, it also helps carriers understand what kind of training is required to be compliant.

Food safety training was a motivator for Dalton Tielens, Co-Owner and Director of National Operations Sales for WEL Companies. "With all the recent news of foodborne illnesses, FSMA was top of mind for us," Tielens admits. "We do LTL, warehousing and truckload – all three classes – so we felt we better get on board early with the Certified Cold Carrier program. It dovetailed perfectly with our training, procedures and protocols best practices in all three areas. It was a great training tool and a good way to get our people on board."

For Travis McCain, Vice President of Sales for FFE Transportation Services, Inc., the Certified Cold Carrier pilot program was a good opportunity to align with best practices in refrigerated transportation. "From our company's perspective, it was a natural. We are very serious about FSMA compliance and we



Since certification, WEL Companies safety and HR departments meet with drivers to check the integrity of equipment and product temperatures and what information is going into the system. (Photo courtesy of WEL Companies.)



FFE refrigerated trailers at the loading dock. (Photo courtesy of FFE Transportation Services, Inc.)



From the Midwest Refrigerated Services fleet. (Photo courtesy of Midwest Refrigerated Services, Inc.)

see this as another technological investment in best practices."

"The value in the Certified Cold Carrier program for us is two-fold," notes Jim Koeble, Vice President - Transportation for Midwest Refrigerated Services, Inc. "Internally, it invites review of best practices and creates an opportunity to re-engage drivers and staff on critical temperature control processes. Externally, it differentiates us from other carriers by demonstrating that our cold chain practices relative to the safe transportation of food are verified by a third party so that customers can have confidence in entrusting their refrigerated and frozen shipments to us."

Koeble adds that major food processors often require third-party quality certifications from their suppliers, and the Certified Cold Carrier provides a mechanism to extend certification into their critical role for their customers in the cold chain.

"Food manufacturers and processors utilize the services of auditing bodies like BRC and SQF to validate their standards and processes to their customers," Durm says. "Customers don't want to know how the sausage is made, they want to ensure that you are achieving the highest industry standards."

Durm points out that FMSA rules have changed the game for carriers as every time someone arranges for the movement of a food load, they become the shipper with all of the responsibilities under the rules. "Certification gives your customer peace of mind that their carrier is doing the right thing, ascribing to a high standard and following best practices adopted around the world. That's appealing."

#### The Process

In reference to the Certified Cold Carrier application process, McCain says it was very straightforward. "We have a lot of familiarity with these types of certifications as we are also a dedicated hauler of bio pharma products. That requires stringent audits multiple times a year with customers' quality assurance teams."

Lee Neal, Vice President of Business Development for Great Plains Transport, Inc., says the application process was not hard at all. "There were some gray areas in how we should answer a question but Jeff Greenwald, the GCCA's Manager of Credentialing Programs was always available to provide support, answer our questions and give guidance on the application process. He reviewed our QA manual, that's our training tool, and saw how

"Certification gives your customer peace of mind that their carrier is doing the right thing, ascribing to a high standard and following best practices adopted around the world. That's appealing." –DON DURM, Vice President at PLM Trailer Leasing



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The first training class conducted by Great Plains Transport where the Certified Cold Carrier Standard Operating Procedure is added to the driver training program. (Photo courtesy of Great Plains Transport, Inc.)

we had adapted it to include Certified Cold Carrier requirements.

Neal adds that the compliance experience also was not hard. "If you're a refrigerated carrier and doing due diligence as you should be, you should have everything on the list in place already. And if you don't, you should rethink your operations."

"The experience was painless and even I learned some new things and I've been doing this for 35 years," Neal notes. "It's a tremendous opportunity for any carrier and the ROI is twofold."

#### The Differentiator

Durm contends that from the shipper's perspective, all things being equal, they'll pay a little more because their carrier is doing everything right. And that is a powerful marketing position to be in.

"This, boys and girls, is just the next step," Durm contends. "From a marketing standpoint, you want to differentiate yourself from the competition. It's been all about price, but now, certification is a distinguishing factor for a carrier. Even if you have telematics and the newest equipment, this becomes one more way to stand out but in a more critical way because you're differentiating yourself against an industry standard." "Honestly, as the Certified Cold Carrier program gets promoted and word spreads in the industry and more carriers become certified, and shippers and customers realize they can use a certified carrier, it's going to give those who are certified an advantage over those who are not," admits Neal. "I've already been on the phone with half our customers to let them know we're certified and the feedback I'm getting is that it's a very good step to take and something they plan to use in their own sales and marketing efforts with their own retail to middle-mile customers."



(Photo courtesy of Great Plains Transport, Inc.)

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"We look at our Certified Cold Carrier designation as a differentiator," Harden says. "At KeHE, products live at the top of the food chain, backed by the best processes and most experienced people in the industry and this designation validates, from an independent third party, what KeHE does every day."

#### **Onboarding Drivers**

Durm says drivers want to work for a company with high standards. "The driver is the customer in a sense – the person that is there every day and has to deal with getting product into the facility. They want to do the right thing and the right thing in this case is the highest standards."

"KeHE is a company of employee-owners who make a conscious choice to serve in order to make lives better," Harden explains. "Certification will be part of the internal messaging to our company drivers but also to our warehouse employees that load the trailers. To be recognized by GCCA on our high standards and operational business practices gives employees confidence in our processes and documentation."

McCain notes that at his company, they have started to provide background on the Certified Cold Carrier on the company's weekly drivers' call and to incorporate "We see this as a very big deal and we'll certainly use our certification status in recruiting – anything you can do that sets you apart from the other haulers. It shows we take our work and our drivers very seriously, above and beyond sign-on bonuses."

> -TRAVIS MCCAIN, Vice President of Sales for FFE Transportation Services, Inc.

Certified Cold Carrier protocols into quarterly training for their drivers and into the company's quarterly messages.

"We see this as a very big deal and we'll certainly use our certification status in recruiting – anything you can do that sets you apart from the other haulers," McCain says. "It shows we take our work and our drivers very seriously, above and beyond sign-on bonuses. Most drivers care about company culture and what the company invests in their drivers and other employees. It's tremendous for us to be able to say we took the time to certify ourselves – it's a game changer."

At Midwest Refrigerated Services, documented best practices are incorporated into new driver orientation and become topics for refresher training and regular driver meetings. "We plan to celebrate the awarding of our certification with our drivers and staff, which will bring further focus," Koeble says.

#### Better for It

"We are absolutely a better company for going through the Certified Cold Carrier process," Koeble says. "While we were following the GCCA Best Practices Guide, we found that not all of those practices were adequately documented in policy or procedure. Going



From the Trailiner Fleet. (Photo courtesy of Trailiner Corporation.)

through the application process helped us tighten that up and also helped ensure that all areas of the company were aligned around the Best Practices Guide."

Tielens says that after his company gathered all their SOPs and documentation for the Certified Cold Carrier application, new employees started going through training now adapted to the certification process. They also developed their own test to gauge how well new employees comprehended the training and plan to incorporate the new adapted training into quarterly reviews.

"Since certification, our safety and HR departments hold meetings with shipping and receiving and the drivers to check the integrity of equipment and product temperatures and what information is going into the system - all aspects of certification,"



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Tielens says. "It's allowed us to tie everything together. Each different practice area has a role in the chain and CCC ensures they understand that role."

"It's one thing for us in the head office to talk about best practices but on the ground, certification has changed the way our team handles operations. Teams have to be accountable around the certification process and we've had less claims and less claims lead to happier customers and more positive feedback," McCain admits. "If we continue to drive that home around more SOPs, I have no doubt we'll see improvements in other areas. It's extremely important to our customers, but also internally, we've developed more awareness and it's had a positive impact on our bottom line."

"Companies can become echo chambers," Durm sums up. "You think you're doing the right thing but the whole Certified Cold Carrier walk-through gives you the ability to see things you didn't see before and to have compliance."

#### Industry Impact

"With FSMA and the industry changing as rapidly as it has over the past five years, and the constant checking and updating that requires, it's great to have a source for good information. Being certified – now that's something you can hang your hat on," says Josh Whitener, Co-owner of the Trailiner Corporation.

Koeble believes the Certified Cold Carrier will standardize processes and the expectations of all stakeholders relative to the safe refrigerated transportation of food.

"GCCA has this broad worldwide audience, and we could not align with a better partner," McCain says. "The Certified Cold Carrier runs parallel with the GCCA's mandate to keep food safe and protect the population and that's why we're participating. We take that mandate as seriously as GCCA does and we take pride in establishing a best in class food safety handling program." @

ALEXANDRA WALSH is a Senior Publishing Consultant with Association Vision and Editor-In-Chief of COLD FACTS.

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# **Certified Cold Carrier Launched**

The Certified Cold Carrier program, organized by the GCCA and based upon the IRTA Refrigerated Transportation Best Practices Guide, launched in June 2019, at the Global Cold Chain Expo and Conference in Chicago, Illinois.

The program's elements and its benefits to carrier companies were introduced and then a panel of carriers, all of whom were participants in the Certified Cold Carrier pilot program, discussed their experiences implementing cold carrier best practices as their companies went through the certification process.

Led by moderator Don Durm, PLM Trailer Leasing and IRTA

Board and Certified Cold Carrier Task Force member, panelists and pilot program participants Josh Whitener, Trailiner Corporation; Travis McCain, FFE Transportation Services; and Jim Koeble, Midwest Refrigerated Services discussed their motivation to become certified and how certification can be used to increase visibility, improve and validate their operational best practices, and identify revenue opportunities.

Find more information about, or sign up for, the Certified Cold Carrier program by visiting the Certified Cold Carrier website at www.gcca.org.

> (L to R) Don Durm, PLM Trailer Leasing, moderating a panel of participants in the Certified Cold Carrier pilot program at the certification's launch at GCCE.

Travis McCain, Frozen Food Express; Jim Koeble, Midwest Refrigerated Services; and Josh Whitener, Trailiner Corporation join moderator Don Durm, PLM Trailer Leasing for an education session at the recent Global Cold Chain Expo. The session titled, Implementing Refrigerated Transportation Best Practices for "Cold Carriers" allowed some of the pilot program carriers to talk about the value the IRTA Certified Cold Carrier brings to their relationships with customers and helps them as an organization stay focused on best practices.





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# **RISING FROM THE ASHES:** INNOVATIONS ABOUND IN NEW FACILITY

Safety, energy efficiency and flexibility to handle growth addressed in building design.

By Sheryl S. Jackson

ire is never a good thing in a cold storage facility but when fire destroyed Dick Cold Storage's facility in 2016, it created an opportunity to rebuild with a cutting-edge facility filled with innovative solutions to many of the challenges faced in cold storage.

The \$20 million warehouse was designed and built by Dick Cold Storage and Tippmann Innovation for future growth as well as current needs and the operator chose to spend more on some items upfront to meet that goal. "Our primary focus was on long-term durability and use versus shorter-term return on investment, so we made some decisions that differed from the original design," says Don Dick, CEO of Dick Cold Storage.

One example is the site's pavement. Moving 1.5 miles from the previous site to a location that offered more space for tractor trailer traffic and parking, Dick specified concrete pavement rather than asphalt to provide a sturdier surface that would require less maintenance over time. "I also wanted 6-inch insulation panels for the building exterior rather than the recommended 5-inch panels," he says. Over time, the additional insulation will better control energy costs, he adds.

Left: The concrete pavement provides a sturdier surface requiring less maintenance and the 6-inch insulation panels on the building exterior better control energy costs. (Photo courtesy of Dick Cold Storage.)

Fire protection was also a priority. In addition to a number of fire prevention measures throughout the building, 18 automatic, custommade smoke vents that measure 7 feet by 18 feet are installed in the roof. The vents allow for the release of smoke, heat and gasses, which can enable firefighters to enter the building safely to better control a fire.

"I worked with Tippmann to gain permission from the state to eliminate a sprinkler system for fire control," Dick notes. Although building code typically requires a sprinkler system, water in a freezer poses a hazard to employees and firefighters, and it destroys all product in the freezer, he points out. "We were successful because we could demonstrate the steps we were taking to prevent and contain a fire."

Another unique feature of the facility is the interior layout that supports Dick's business model. "We are not typical in cold storage because we offer office, dock or freezer space for companies that want to run their own operation and rent space from us, or we'll handle the operation for them," Dick points out. "We have no long-term leases, which is typical in this area, and our client base changes every five years due to trends and market conditions." For that reason, the facility features:

- Three office areas with direct access to docks for segmented tenants
- Two sizes of docks 50-feet and 70-feet deep
- Seven different-sized rooms that are convertible from 60 to -20 degrees
- Oversized coil capacity in the rooms that can support blast cell additions
- Racked hot room for storage from 100 degrees to 38 degrees

The facility offers 50-plus foot clearance in all freezer and cooler areas, which is a

significant improvement over the old facility, which had 20-foot high clearance, says Dick. "Fifty feet is the sweet spot for us in terms of safe, efficient operation of forklifts," he says.

Offering larger docks is also a nod to the future, Dick points out. "We're looking at the growing trend of home delivery services that will require space to stage, handle and assemble orders - space that traditional dock sizes do not allow."

Constructing seven different rooms that are all convertible offers more flexibility *(continued on page 24)* 

Fire protection was also a priority. In addition to a number of fire prevention measures throughout the building, 18 automatic, custom-made smoke vents that measure 7 feet by 18 feet are installed in the roof.

Custom-made smoke vents enable firefighters to enter the building safely to better control a fire. (Photo courtesy of Dick Cold Storage.)





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Larger docks can accommodate home delivery services that require space to stage, handle and assemble orders. (Photo courtesy of Dick Cold Storage.)



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#### (continued from page 21)

with a changing customer base, notes Dick. "We can also handle products such as frozen hams that need to be kept frozen for three to four months and then warmed to 38 degrees for shipping without physically moving them from place to place," he says. "We just warm the room."

The racking systems are double deep reach racks from Frazier and bi-parting doors were obtained from ASI Doors, says Dick. All of the products such as racking systems and doors were evaluated for reliability and durability, he adds.

Safety and efficiency along with compliance with regulatory guidance, led to the installation of a low-charge Anhydrous Ammonia Refrigeration System with backup pumps, Dick says. "Tippmann also installed the refrigeration system control valves on the dock rather than in a freezer or on the roof," he says. "Some companies install the valves outside, but it is harder to monitor them." With valves on the dock, it is easy to monitor and address a leak quickly, and the valve is not exposed to weather, he says. "If the control valves require repair or replacement, it is much easier to address on the dock rather than on the roof."

Energy efficiency is also addressed throughout the building starting at the roof, where Tippmann Innovation built a vaportight roof with a single-ply system to minimize air leaks that lead to thermal loss and excess moisture.

"Variable speed drives on compressor motors also add energy efficiency because they can be slowed or sped up depending on the outside temperature," Dick says. "We have a primary and backup that are computer monitored and controlled to gain the most efficiency."

When asked what advice he has to offer other cold storage operators who are planning a new facility, Dick says, "Educate yourself about new products and best practices but don't choose something because it is the latest and greatest. Consider all of your options and pick the design, products and materials that fit your business goals." **@** 

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The bi-parting doors were supplied by ASI Doors. (Photo courtesy of Dick Cold Storage.)

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# SORTING OUT THE CRISIS

Attracting truck drivers might require a change of rules to widen the pool.

# By Karen E. Thuermer

rucking is the lifeblood of the cold chain. Yet, with a current overall shortage of 51,000 drivers, estimated to grow as high as 170,000 by 2026, Matt Luckas, Vice President Supply Chain Service, Hanson Logistics, says, "We're living the nightmare."

The problem is equally bad in Europe, where one-fifth of driver positions reportedly are unfilled, and the shortage in the United Kingdom is estimated to be growing at 50 drivers a day. Global Cold Chain Alliance (GCCA) members in Europe point out that turnover has been high for the last two years largely because only the "leftovers" are available. A driver who worked international freight is not always suitable for national distribution. They find that the stress level and contact with clients is much higher.

Driver dissatisfaction is common on both sides of the Atlantic. Contributing to the crisis is pay, which, in the United States, has not kept up with increases in living costs.

"A driver does not make as much money today in real dollars as 20 years ago," observes Keith Mowery, Vice President of Transportation and Logistics, United States Cold Storage.

ZipRecruiter reported that in May, the average annual pay for a long-haul driver in

the US was \$69,000. The report added that regardless of location, few opportunities for pay increases or advancement exist, even for those with several years of experience.

Cold chain companies that operate small fleets have a particularly tough time hiring drivers. "It's hard to compete against carriers with large fleets," says Robert Fay, President of Florida Freezer, which has 20 trucks. Consequently, Florida Freezer now offers new drivers wages that are 16 percent higher than in 2017.

"And this is up almost 19 percent from the prior increase," Fay adds. "Over the last four years, we have given a rate increase of almost 38 percent."

#### Barriers

Commercial Driver's License (CDL) testing standards, strict drug and alcohol testing and safe and clean driving records can be barriers to entry. But the biggest deterrent, many say, are the required long hours away from home. "It's difficult to strike a work-life balance," Mowery states.

Job requirements have also changed significantly over the years. "Twenty years ago, truck driving was regarded an opportunity to be your own boss," Mowery adds. "Back then, drivers called from pay phones to report where they were. Now, with changes in regulations and technology, drivers are told when to take breaks, what roads to drive on, where to get gas and where to eat. Trucking firms know where their drivers are always. The days of being independent are gone."

Compounding the problem, the American Trucking Associations reports the average driver age is 50, and only 6 percent are women.

In Europe, women make up only 2 percent of Europe's truck driver force. Add to that, senior drivers who can retire, usually stay for two or three shifts per week to do inter-company shuttling, according to GCCA members in Europe.

In the United States, companies are encouraged to hire veterans. But some firms find that veterans are more comfortable operating heavy equipment.

"There's societal attitude shifts that need to be made towards truck drivers," Mowery adds. "Who wants a job sitting in traffic all day with people cutting you off, then showing up at a warehouse to be told you are two hours late, then waiting in facilities that are not nice. People get frustrated sitting in traffic, not being productive, then being treated poorly by fellow drivers and those loading or unloading the truck."

The International Road Transport Union has found that in Europe the poor image is stifling recruitment, particularly among women. To help, IRU has launched a joint initiative with the European Shippers Council to develop common practices to improve the treatment of drivers at delivery sites and will set up a Women in Transport Network to help increase the number of women drivers.

#### Incentives

Just recently, sign-on bonuses were commonly used in the United States to attract qualified drivers. "They are a necessary evil," Luckas comments. "If you don't offer them, you're seen as not serious about hiring drivers."

But companies have also found that signon bonuses encourage driver turnover with drivers jumping from company to company for another sign-on bonus. Consequently, trucking companies are rewarding longevity

and offering comprehensive benefit packages such as a 401(k); tuition reimbursement options; health/dental care; and paid holidays, vacations and sick leave.

In Europe, GCCA members report that many larger companies offer sign-on bonuses or bonus-per-stop if on time. One British firm revealed it pays London drivers an extra £11 (\$14) per stop if they arrive on time and without damage.

Rene Moeijes, owner of Netherlands-based Moeijes Internationale Transporten, notes that if Brexit results in waiting times at the border, drivers will be less productive and more drivers will be needed for the same volume. But if Brexit leads to less trade and less transports, fewer drivers will be needed.

Moeijes suggests that what is needed is to is make the job more attractive and educate and train new drivers. The examples he gives are better salaries, bonus/incentives, education/ training, better working conditions, more attractive working times, part-time work and better and safer trucks.

"Give more flexibility in quickly loading/ unloading the trucks; be more polite to

drivers; create better circumstances (parking for the truck, toilets and showers) because drivers need to rest," Moeijes adds.

Paid training can be used as another incentive. "Five to 10 years ago, a lot of companies required drivers to have a certain level of experience before hiring them," Mowery says.

In the Netherlands, Moeijes notes that all the companies and workers together pay 0.86 percent of salaries towards a fund for training and for promotion of the transport industry.

Today, more and more larger U.S. companies have their own driver schools, although some smaller firms are establishing driver programs. Hanson Logistics recently started one for team members who express an interest in driving.

"They must first pass our vetting process," Luckas explains. This includes demonstrating good work habits and passing a physical. "They ride with another driver to see what a day-ina-life of a truck driver looks like. If they like it, we send them to a regional truck driving school," he says. "Once the driver has his or her CDL, they ride with one of our other drivers



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until that mentor and safety manager says they are good to go on their own."

Luckas admits that his company is small. "We just put our first driver to work," he says. "We have others who have expressed an interest."

While not a panacea, companies find drivers are happier when working for a company with modern truck cabs. "Automation and changes to truck design make trucks easier to drive," Mowery says. "There's no shifting, trucks are safer and they are more comfortable."

But, all totaled, this still may not be enough to attract drivers, and in Europe, new trucks are commonplace.

#### **Driver Shifts**

In the United States, the ultimate solution to the driver crisis may lie in reducing the nationwide age for CDL licenses for interstate driving to 18 and requiring insurance companies to follow suit.

"Off the bat, we need to change the pool of available drivers nationwide and get them right out of high school when they want money, independence and don't want to go to, "Off the bat, we need to change the pool of available drivers nationwide and get them right out of high school when they want money, independence and don't want to go to, or cannot afford, college."

> -ROBERTY FAY, President of Florida Freezer

or cannot afford, college," Fay says.

The Federal Motor Carrier Safety Administration recently announced a new pilot program to allow non-military commercial drivers under the age of 21 to drive interstate. This follows a program announced last July to allow younger veterans to drive interstate.

Fay also advocates for reinvestment in vocational-tech schools to offer truck driving. He also feels U.S. immigration policies need to be examined so that laborers already licensed and skilled in operating heavy equipment like those in the United States are permitted to work in the United States.

In the meantime, rail and barge use is being encouraged, particularly in Europe. Fay comments, "Shippers need to look at how to balance lanes and freight. Let trucks handle the last mile." **②** 

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# 2019 GCCA LATIN AMERICA COLD CHAIN CONGRESS

he 2019 GCCA Latin America Cold Chain Congress will be held in Mexico City, Mexico, November 3-5, 2019. The Cold Chain Congress has become the meeting place for Global Cold Chain Alliance (GCCA) members and leaders of the perishables industry looking for a space to interact, learn about industry trends and expand their knowledge.

The GCCA is creating a circle of value for the cold chain community where, through a shared vision, cooperation, recognition, example and integration of the industry, a solid cold chain can be built in the region.

#### **Congress Highlights**

The Congress serves as a discussion forum for issues of interest to multi-regional cold chain industry leaders who are preparing themselves for the challenges of the 21st century.

A panel session will provide a platform for industry executives from five countries who are also members of the Cold Chain Advisory Council. The session will highlight the peculiarities, challenges and opportunities that differentiate certain markets in Latin America.

#### **Hot Topics**

Also explored at the Congress will be challenges and opportunities that impact operations, human resources and technology. Topics will include:

- Integration of education and technology as a competitive advantage for the industry
- Challenges recruiting and retaining associates
- · The future of cold chain logistics
- How prepared is the Latin American

cold chain industry for rapid changes in technology

- Big data revolution, challenges and opportunities for the industry
- Creating value in the competitive cold chain.

#### Recognizing NextGen Leaders

GCCA has a longstanding commitment to

developing talent in the cold chain industry, which needs a constant influx of young people who represent the next generation of cold chain leaders.

To promote talent development, GCCA launched its Global NextGen Future Leader Competition several years ago, recognizing top candidates from several areas of the world. Candidates from different countries in Latin America will compete at the GCCA Latin America Cold Chain Congress through interviews with a panel of judges and deliver presentations during a plenary session.

At the end of the Congress, the judges will recognize one future leader to represent Latin America in the global competition taking place at the GCCA Global Cold Chain Conference and Expo in June 2020, in Chicago, Illinois. There, the Latin America Future Leader Award Recipient will compete with their





## Latin America Cold Chain Council Members

**Raúl Hernández Butrón,** CEO Precisa Group, Chile

**Salvador Figueroa,** Vice-President of Institucional Affairs, MARDOM Group, Dominican Republic

**Dionisio Cos Malpica,** Business Director, Frío Puerto Veracruz, Mexico

**Fernando León Alatorre,** Director, Bajo Cero Frigorificos, S.A., Mexico

Jose Carranza, General Manager, Agroempaques, Peru

counterparts from Europe, Australia and South Africa for the title of GCCA 2020 Global NextGen Future Leader.

#### **Cold Chain Exhibits**

Partnering and working with leading companies in the cold chain industry is essential in providing a complete range of solutions and services to customers. The Congress Expo will feature the latest technologies, solutions, products and services from some of the most respected companies in the cold chain industry.

Past exhibitors have showed the following products and services:

- · Refrigeration equipment
- Doors
- Cold weather clothing
- Insulated panels
- Energy efficiency solutions,
- WMS/ TMS solutions
- Container refrigeration equipment.

With the support of the Latin America Cold Chain Council, GCCA is building a program that offers effective knowledge transfer, best practices exchange and industry transformation.

To learn more about the Latin America Cold Chain Congress 2019 contact Debbie Corado, GCCA Latin America Office Director at dcorado@ gcca.org or visit www.gcca.org/events/acerca-de





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# A SAVYY PROPOSAL FOR ENERGY EFFICIENCY

A trio of companies collaborates on energy efficiency technology for cold storage construction.

# By Keith Loria

t the 38th CEBA Conference and Expo in November 2018, representatives from Viking Cold Solutions, Coldbox Builders and Evapco delivered an intriguing presentation on using new technologies to build better and more efficient cold storage facilities.

Collin Coker, Vice President of Sales and Marketing for Cold Solutions, a thermal energy management company that makes cold storage systems more efficient, says its portion of the concept highlights Thermal Energy Storage (TES), leveraging the natural laws of convection to capture, store and consolidate heat infiltration to enable the existing refrigeration equipment to more efficiently remove heat from the facility – and ultimately use much less energy to safely operate the facility.

"Energy-related costs are usually the second- or third-highest operating expense for industrial cold storage operators," he says. "When a construction company can build a more efficient freezer that can significantly reduce energy-related costs for the life of that facility and can maintain a higher quality frozen food product, you have a winning recipe that enables the operator to be more competitive in the market place."

Coker believes that interest in energy efficacy is high for GCCA members and many are looking for ideas like those expressed in the presentation.

"We continue to see more innovation, investments in technology and use of intelligence to gain multiple levels of efficiency," Coker says. "Whether it is automation, investments in renewable energy such as solar and now adding in TES to more effectively leverage these assets, operators see now more than ever before that in order to remain competitive, they must continue to invest in technology."

Still, he does feel that the industry's adversity to risk is also high, saying that if one cannot show or prove the efficiency and savings, there is a natural reluctance to put trust into something new.

"The initial adoption of our technology was slow, but now that operators are seeing their competitors reap the financial and riskreduction benefits, adoption is rapidly gaining momentum," Coker points out. "One of our key value propositions is our ability to display daily performance via the cloud-based monitoring and notifications portal, lending further credibility to the technology's benefits and efficacy."

The most important thing has not changed is keeping the food safe and stable during its journey through the cold chain. Coker notes if a company is not building a state-of-the-art facility, then they are building in the past.

Marko Dzeletovich, President of Coldbox Builders, a refrigerated warehouse designer/ builder, says the companies teamed to show the members of CEBA, as well as the end users present in the audience, that combining these technologies into new projects can have a compound effect for the end user of the building.

And while he notes there is no one-size-fitsall optimized building – a 3PL will be different than a foodservice distributor that will be different than a manufacturer or producer/ processor – it's important to start moving forward with energy-efficiency measures.

"Building operators put a lot of effort into understanding, reviewing and controlling initial capital cost in their facilities. Far fewer put considerable effort into optimizing the operational cost of the facility through design," Dzeletovich says. "For that, you must bring the right people to the table, the right vendors of the different technologies and go through the offerings during design development in a very methodical, iterative way. It's the only way to determine the impacts and benefits of the different systems that are out there and available for consideration in a new facility." Kurt Liebendorfer, Vice President of Evapco, a manufacturer of industrial refrigeration systems, says the impact of new technologies that we see in our everyday lives has finally reached the cold storage industry. One of his main goals in the presentation was to show that the new packaged low charge ammonia refrigeration technology provides many benefits to cold storage construction projects.

"The benefits are diverse and include the smarter use of space, a faster schedule and inherently safer and lower energy consumption," he says. "Energy consumption and the associated electric bill is the second largest cost component for a cold storage facility, behind only labor cost. Any and every improvement in energy efficiency a warehouse can attain goes right to the bottom line and increases profits."

He notes that evaluating this during the proposal phase can lead to increased profits over the life of the equipment. However, evaluating the operating efficiency cost benefits of packaged low charge ammonia and thermal energy storage often requires an energy analysis be performed, so it is important that end users and contractors ask for this information during the proposal development of a project.



Thermal Energy Storage modules installed on op crossmember of the racking structure. (Photo courtesy of Viking Cold.)

"The new technologies of packaged low charge ammonia and thermal energy storage have been introduced to the cold storage market only in the last couple of years so are relatively new," Liebendorfer says. "They are both experiencing the typical phases of new product market adoption – starting with a few early adopters, then a period of scrutiny and validation, followed by acceptance and a growing installed base."

Liebendorfer believes both technologies have successfully passed the validation phase and are now transitioning through the acceptance and growing installed base. Coldbox, for one, has identified the benefits of these technologies and working them into its project development efforts to the benefit of owners and end users.

"The traditional method of designing and building the legacy central ammonia plant systems becomes slightly different to incorporate these new technologies, so having a progressive and open minded design build project team is an important element of bringing these great solutions to the owner," Liebendorfer says.

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#### **Patent Pending**

#### Making a Difference

Visibility is key to creating interest and the GCCA Energy Excellence Program and a new task force at the International Institute of Ammonia Refrigeration (IIAR) are both helping to bring out the message. The programs' high levels of interest and positive responses are clear evidence of a changing landscape that both organizations are recognizing and addressing for their members.

"Prioritizing the importance of energy within GCCA and IIAR confirms that there is still a lot of room for improvement across the industry," Coker says. "By demonstrating pathways for improvement, sharing successes and helping determine KPIs, GCCA and IIAR are increasing the value of new ideas and encouraging members to take bold steps to invest in the resources that can change energy needs for cold storage."

Looking ahead, Dzeletovich feels several companies will come to see that for their operations to be efficient over the long term, they will need to make time to optimize their facilities from the beginning.

"They will develop partnerships with techsavvy and innovative design builders who specialize in environmentally controlled facilities and we will see fewer and fewer bid build type projects with these specialized facilities," he says. "To optimize is to collaborate and iterate; these are things at the heart of specialists who compete on knowledge, skill, experience and track record."

The presentation touched on all of these important considerations and all three companies who collaborated are hopeful that things are changing for the better.

"This is the tip of the iceberg in terms of where the true innovation of environmental controlled facilities can go in the future," Dzeletovich says. "Following the presentation, there were a few members who truly digested the idea and approached me to discuss it. These are members who are seeking alternatives and seeking to offer options to their clients."

Liebendorfer says the growing focus and momentum on energy efficiency and energy

cost is spreading throughout the cold storage market, which bodes well for the accelerated adoption of packaged low charge ammonia and thermal energy storage.

"The bottom line is providing, installing and operating these energy efficient and pre-engineered packaged solutions is getting more attention in the cold storage market because they work," he says. "These technologies have been successfully validated and proven to deliver the expected results. Owners and contactors are seeing new technology as a method to being more competitive and profitable. In short, the cold storage market is in the midst of its own technology revolution." @

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.

TIPPMANN INNOVATION

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# **COLD CHAIN INNOVATIONS**

### AUTOMATED CLEANING AND DISINFECTING FOR TRAILER INTERIORS

ISTOBAL USA presented its revolutionary ISTOBAL HW'INTRAWASH at the 2019 Global Cold Chain Expo. The system was designed to meet the growing need to automate cleaning and sanitizing the inside of trailers and box containers.

The ISTOBAL HW'INTRAWASH also allows operators to maximize their efficiency. The system guarantees a professional interior wash and a FSMA-compliant disinfection of refrigerated and dry van trailers, as well as shipping containers. It also reduces water and chemical usage as well as cleaning time as it can clean a 53-foot trailer interior in as little as three minutes and clean and sanitize in six minutes.

The system is an industrial alternative to a manual wash. Constructed of stainless steel, the unit and its components are designed for the harsh conditions of this type of cleaning environment. The footprint is small, and the required support equipment is compact, so installation in an existing dock is possible. Compared to a manual wash process, the machine cleans 75 percent faster and facilitates control over chemical products. @



Cold Chain Innovations, a column brought to you by Tippmann Innovation, features the latest technologies, cutting-edge solutions, and innovative practices that the cold chain industry has to offer. Featured in each issue of COLD FACTS Magazine, the Cold Chain Innovations section gives readers thought-provoking ways to optimize their supply chain and improve operational efficiencies. The information presented in the Cold Chain Innovation section is sourced from GCCA members. To feature your news, press releases or submit your idea for a future Cold Innovation article, contact James Rogers at jrogers@gcca.org or call 703.373.4300.

# COLD CHAIN DEVELOPMENT NEWS ABOUT WFLO INTERNATIONAL PROJECTS

# THE COLD LOGISTICS OF FOOD BANKING

By Alexandra Walsh

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.

Each year, billions of pounds of food go to waste, while one in four people are malnourished. One tool in the fight against global hunger is food banks. Food banking systems capture wholesome, surplus food and deliver it to the people who need it most, engaging all sectors of society government, business and civil – in the process.

Food banks acquire donated food, much of which would otherwise be wasted, from farms, manufacturers, distributors, retail stores, consumers and other sources, making it available to those in need through an established network of community agencies.

Through its peer network of food bank leaders and its expert staff, The Global Food-Banking Network (GFN) www.foodbanking. org provides food banks with the resources and know-how needed to better serve those facing hunger in their local communities.

GFN works with food banks in more than 30 countries and partners with local leaders to launch food banking operations in communities and countries where they had not previously existed. Since 2006, GFN has supported the launch of food banking organizations in 15 countries in emerging market economies in Central America, Asia and Africa. With its partners Feeding America and the European Food Banks Federation, the three organizations' combined food assistance provides sustenance to 62.5 million impoverished people. But all these efforts are in vein if the donated food cannot reach the food banks. Hunger is often not a food problem; it's a logistics problem.

More than half of the billions of tons of food wasted every year are fresh fruit and vegetables. These healthy items are highly desired by food banks and often unaffordable for low-income families. But too often by the time these highly nutritious products get to food banks, they are very close to losing their quality and may be at risk of spoilage.

And, because food banks rely on food from the commercial food system, food banks have had to adjust to the trends that are occurring throughout the value chain. As consumers transition to more fresh and perishable products, food banks find those are the products increasingly donated by retailers and other food donors. As a result, food banks are experiencing a decline in shelf stable foods in favor of produce and perishables in their supply chain.



Refrigerated food truck at Banco de Alimentos Buenos Aires, part of the Argentinian food bank network that distributed 9 million kilograms of food and grocery product to more than 300,000 people facing hunger in Argentina. (Photo courtesy of The Global FoodBanking Network.)

"Adding and upgrading the cold chain infrastructure continues to be a priority for many of our food bank members around the world and a key component of their capacity building," explains Doug O'Brien, Vice President of Programs for The Global FoodBanking Network.

In emerging market economies, where GFN primarily works, the food banks are typically smaller and at earlier stages of development. "Partnering with us, GCCA member companies can be helpful at each step of that development," O'Brien says.

O'Brien points to the Dominican Republic where local GCCA members assessed the needs of a food bank and provided guidance on the right kind of refrigerated container to purchase given the available power supply. "In many instances, food banks are not experts on the specific infrastructure needs of the cold chain necessary to most effectively and efficiently move, store and distribute fresh product. Here is an area, across the globe where, GCCA members companies can provide critical technical assistance."

O'Brien notes that GFN has 811 food banks in its network system servicing 55,000 local community agencies, from food pantries and soup kitchens to orphanages and elder care. "Purchasing cold storage equipment can be daunting and is a significant capital expense, especially for smaller food banks, and a high degree of technical specification must be understood," O'Brien says. "When GCCA members can help food banks establish proficiency in the cold chain by procuring refrigerated trucks or warehouse space and helping them understand how to better maintain and utilize these assets, that benefit extends throughout the community and has an incredible multiplier effect, with less food wasted and more hungry families fed."

O'Brien points to these specific examples of the impact adding and upgrading cold chain infrastructure can have for food banks.

• In Ecuador, two food banks have the potential to increase the quantity of food they provide to low-income families but were without access to adequate cold chain. With grants through GFN and partners, the food banks were able to establish cold freezer and refrigerated rooms.

• In Honduras, the local food bank has been striving to increase the nutritional quality of the food it distributes. With a GFN Zero Hunger Food Bank Grant, the Honduran food bank was able to purchase freezer rooms for its three logistics centers, as well as a refrigerated truck. It is now able to receive and distribute fruits, vegetables and dairy products for the first time.

The GFN grant made the assets available but O'Brien points out that GCCA members could provide the right technical assistance with power sources, refrigeration methods and maintenance of the refrigerated facilities, and help the local food bank meet codes, establish standard operating procedures and best practices. Without these in place, the food bank can be challenged to accept all the food donations made available.

In Panama, a food bank wanted to increase the nutritional value of the food they were distributing so they partnered with the national wholesale market to establish a food donation space within the market for vendors to donate their surplus produce directly. A high-efficiency refrigerated trailer and an 80-amp generator and an alternator will support this effort. That was the first step, but O'Brien again notes that now the food bank needs additional technical support and routine maintenance support to extend the life of the project well into the future.

"Making connections to suppliers and providing technical support might seem like small actions but have enormous impact over the long run," O'Brien says. "As the leading experts in temperature management for perishable commodities, GCCA members are uniquely and ideally suited for our mission objective and we welcome their partnerships."

For more information on how GCCA members can support the work of GFN, contact Anthony Kitchen, GFN Director of Network Programs at akitchen@foodbanking.org or 312.767.4920. **②** 

**ALEXANDRA WALSH** is a Senior Publishing Consultant with Association Vision and Editor-In-Chief of COLD FACTS.

EMAIL: awalsh@associationvision.com

# 2019-2020 CALENDAR

#### JULY 15-17, 2019

WFLO Institute Latin America Mexico City, Mexico

#### JULY 28-31, 2019

**GCCA Cold Chain Policy Forum** Washington, DC, United States

## AUGUST 6, 2019

GCCA Cold Chain Connection Recife, Brazil

#### **SEPTEMBER 19, 2019**

GCCA European Warehouse Council Meeting London, England

#### OCTOBER 10, 2019 GCCA Brazil/ABIAF Symposium Sao Paulo, Brazil

OCTOBER 21-23 2019 WFLO Institute Australia Melbourne, Australia

#### NOVEMBER 3-5, 2019

GCCA Latin America Cold Chain Conference Mexico City, Mexico

#### NOVEMBER 14-16, 2019

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

JANUARY 11-13, 2020 56th WFLO Institute West Tempe, Arizona, United States

FEBRUARY 9-12, 2020 56th WFLO Institute East Atlanta, Georgia, United States

#### MARCH 18-20, 2020

**23rd GCCA European Cold Chain Conference** Rotterdam, Netherlands

#### MAY 5-8, 2020

**129th IARW-WFLO Convention** Bonita Springs, Florida, United States

#### SEPTEMBER 28-30, 2020

**Global Cold Chain Expo** Dallas, Texas, United States

\*For more details go to www.gcca.org/events

# ASSOCIATION NEWS NEWS ABOUT GCCA CORE PARTNERS

GCCA announced that next year's venue and dates for the Global Cold Chain Expo will be the Hilton Anatole in Dallas, Texas, September 28-30, 2020. In 2020, the Expo will be a standalone event and not held in conjunction with FreshMarket and FreshTech. The move from Chicago was made with careful consideration, support and guidance from the GCCE Task Force made up of warehouse attendees and all different categories of exhibitors as well as approval from the IARW and WFLO Board Members. Moving from a convention center to a hotel environment that encompasses an expo hall, meeting space and sleeping rooms all under one roof facilitates greater networking and community. Finding a lower price point for hotel rooms and overall cost of participation for attendees and exhibitors was a key driver in the move to Dallas. United Fresh Produce Association will still be a

partner in the Expo and facilitating attendance from the fresh produce community.

WFLO announced it will host a WFLO Institute in Melbourne, Australia, October 21-23, 2019. The WFLO Institute is for professionals engaged in temperature-controlled logistics and is tailored for current or potential PRW supervisors, managers or engineers. The curriculum takes "students" through cold chain management, customer service, employee safety, food safety, warehouse operations, transportation operations, conflict resolution, technology, automation and professional development. Students participate in the three-day program, once per year. After three years, students receive a Certificate of Completion during a graduation ceremony. In addition to the valuable training opportunities participants take part in, students also receive the added benefit of networking with industry peers and developing relationships with mentors while taking their professional, leadership, and cold chain skills to the next level.

The **CEBA** Built by the Best Award program is now accepting nominations for the 2019 cycle. This award acknowledges association members for their expertise and innovation in constructing, renovating and or modernizing controlled environment buildings. The award is open to project teams comprised of Contractor/Design-Build companies, Processor/End-User/Warehouse/Third-Party Logistics companies and supplier sub-contractors that are association members. Visit the GCCA website to submit a nomination or to get more information.



Misty Blessley, Ph.D., Assistant Professor of Instruction, Department of Marketing and Supply Chain Management and Faculty Liaison Deans Teaching Fellow, Fox School of Business, Temple University, poses a question to the panel regarding the Certified Cold Carrier program.

# CERTIFIED COLD CARRIER

During the Global Cold Chain Expo, IRTA announced its Certified Cold Carrier program focused on excellence in refrigerated transportation. The Certified Cold Carrier has two major components, the first is carrier conformance with the STF through adoption of the IRTA Refrigerated Transportation Best Practices Guide and carrier proof of knowledge for management personnel on specific Best Practices Guide requirements. The certification program was piloted by seven companies including Midwest Refrigerated Services, Inc.; FFE Transportation Services, Inc.; Great Plains Transport; KeHE Distributors; Trailiner Corp.; WEL Companies and J.B. Hunt. To read more about the pilot program, see the article on page 10 of this issue of COLD FACTS. To participate in the certification program visit the GCCA Website. 🗞

# 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 A member is receiving large 1 ton nylon super-sacks of raw sugar that have minor pest infestation. Due to the infestation, the product is not allowed in the warehouse until core-frozen to 0 degrees F in a commercial refrigerated trailer. The Transportation Refrigeration Unit (TRU) on the refrigerated trailer is set at -5 degrees F. The member indicated that the inbound product temperature was 65-70 degrees F and provided the dimensions of the super-sacks and configuration of the load in the trailer. The process is currently taking about 14 days, but the customer is requesting that it be accomplished in less time. The member requested assistance in reducing the amount of time that would be required to freeze the products prior to receiving in the warehouse.

A The TRU on a commercial refrigerated trailer is designed to maintain temperatures of chilled/frozen products and not designed to remove heat, especially the types of Delta-T temperatures you are discussing (65-70 degrees F). The unit will be incapable of removing that much heat in a significantly reduced amount of time.

The side walls, roof and floor of a commercial refrigerated trailer lack adequate insulation properties to be able to maintain temperatures within the trailer with temperature variations as large as you are discussing. They are designed to be short-term transportation vessels and not storage coolers or freezers.

Having said that, there are a few possible ways to enhance the time-to-freeze scenarios that you are proposing, which are as follows:

- Create additional airflow within the trailer by using box fans to circulate cold air
- Ensure clear separation of space between super sacks and the walls
- Ensure clear separation of space between super-sacks. Please note that this will reduce the capacity of the trailer.
- Create cold pockets of air by reducing the storage capacity of the trailer, thereby trapping colder air around the super sacks and accelerating the cooling curves. Please note that this will further reduce the capacity of the trailer.

Answer provided by the Scientific Advisory Council's Dr. Patrick Brecht, PEB Commodities and Don Durm, PLM Trailer Leasing and IRTA Board Member. @

### SAC MEMBER SPOTLIGHT



# DR. FARIS HUSSAIN KARIM, Research and Teaching Assistant, Kansas State University

Faris Karim obtained two post graduate degrees in food science from Kansas State University, where he is currently a researcher and teaching assistant with the food chemistry department. He developed and contributed to numerous projects involving food safety, food analysis, and food toxicology at Kansas State University. Karim also participated as an ammonia food contamination expert in several insurance claim cases.

Karim has contributed to numerous publications and educational posters related to the ammonia contamination of food, and food toxicology.

In 2014 and 2017, the honor society for food science and technology, Phi Tau Sigma Toxicology Division Research Competition, awarded Karim the first and second place prizes respectively.

In addition to his research and teaching experience with Kansas State University, Karim has several years of experience with quality control of food products in the private sector.



#### DR. JEFFREY K. BRECHT, Professor, University of Florida

Jeffrey K. Brecht received his B.A. in Biology from Whittier College (1979) and Ph.D. in Plant Physiology from the University of California, Davis (1984). He has been on the faculty of the University of Florida since 1984. His research program involves studies of harvesting, handling, storage, transport and the physiological and metabolic processes related to the development, maturation and senescence of horticultural crops. He also shares statewide postharvest extension responsibilities and co-teaches a beginning graduate level course, "Principles of Postharvest Horticulture."

Brecht is the Director of the Center for Food Distribution and Retailing (CFDR) at the University of Florida, which brings agricultural scientists and engineers together with companies involved in the distribution and selling of perishable foods to conduct multidisciplinary research. As CFDR Director, he interacts with commodity associations, packers, shippers, distributors, importers, exporters, processors and retailers to extend information regarding advances in perishable food handling.

Brecht has been involved in international postharvest research and extension projects in Central and South America, Asia and Africa. He has authored over 500 technical publications including 160 refereed journal papers. He was named a University of Florida Research Foundation Professor in 2002, a Fellow of the American Society for Horticultural Science in 2006, and an Honorary Member of the Florida State Horticultural Society in 2014.

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**Dr. Patrick Brecht** PEB Commodities, Expertise: Refrigerated Transportation

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**Dr. Donald Fenton** Kansas State University, Expertise: Refrigeration Engineering

**Dr. Dennis Heldman** The Ohio State University, Expertise: Food Process Engineering

**Dr. Faris Karim** Kansas State University, Expertise: Ammonia Contamination and Food Toxicology

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**Dr. Kees Jan Roodbergen** University of Groningen, Expertise: Logistics and Operations Management

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**Joseph Slavin** Jos. Slavin & Associates, Expertise: Fish Products

**Dr. W. F. (Will) Stoecker** University of Illinois, Expertise: Refrigeration Engineering

# NEW MEMBERS NEW MEMBER COMPANIES OF GCCA CORE PARTNERS



#### IARW-WFLO WAREHOUSE MEMBERS

American Meat Companies Pico Rivera, California, United States

Dothan Warehouse Freezer Storage Dothan, Alabama, United States

Frigoregio S.A. DE C.V. Salinas Victoria, Nuevo Leon, Mexico

**JVC Alimentos** Brasilia, Distrito Federal, Brazil



#### IARW ASSOCIATE MEMBERS

Applus RTD USA, Inc. Sugar Land, Texas, United States

**Centrica Business Solutions** Iselin, New Jersey, United States

**Evans General Contractors** Greenville, South Carolina, United States

**ISR Corporation** Baltimore, Maryland, United States

Jan X-ray Services, Inc. Sugar Land, Texas, United States

SolarXWorks LLC Moses Lake, Washington, United States



#### **IRTA MEMBERS**

Frigoregio S.A. DE C.V. Salinas Victoria, Nuevo Leon, Mexico Hoosier Logistics, Inc. Indianapolis, Indiana, United States

L**as Vegas Cold Storage** Las Vegas, Nevada, United States



#### **CEBA SUPPLIER MEMBERS**

**Evans General Contractors** Greenville, South Carolina, United States

Frank Door Company Newport, North Carolina, United States



#### WFLO MEMBERS

Fred Nolte Consulting Vancouver, British Columbia, Canada

Lion Melbourne, Victoria, Australia

SolarXWorks LLC Moses Lake, Washington, United States



**GCCA COLD CHAIN POLICY FORUM** FAIRMONT, WASHINGTON, DC JULY 29–31, 2019

### THE COLD CHAIN POLICY FORUM is the

can't-miss policy event for businesses engaged in temperature-controlled logistics. It features

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- meetings with key federal agency officials
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Send your safety, compliance, and legal teams to learn the latest in cold chain rules and regulations.

# Learn more and register at gcca.org/policymeeting

# MEMBER NEWS NEWS FROM MEMBERS OF GCCA CORE PARTNERS

**MARUBENI CORPORATION** invested in GridMarket, LLC, a U.S.-based company that provides development support services to projects involved in distributed energy resources. Founded in 2014, GridMarket's distributed energy project platform uses proprietary analytics and machine learning to identify compelling opportunities and recommend best-fit renewable and distributed solutions such as battery storage, solar PV, fuel cells and combined heat and power. The platform's unique approach leverages billions of data points to automate and streamline traditional alternative energy feasibility and development processes. Through the cooperation with GridMarket, Marubeni will be able to identify the most efficient and costeffective project opportunities, and source best-fit technologies.

**MTC LOGISTICS** promoted Andrew B. Janson to President, effective April 1, 2019. Janson had held the position of Chief Operating Officer since joining the company in June 2018. Former MTC Logistics President Brooks Royster will remain with the company, leading the international supply chain solutions area.

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**NEWCOLD** hired Valerie Kaminski as Managing Director, North America. The company is expanding quickly in the United States and has grown its network with nearly 200,000 additional pallet positions in two new facilities in Tacoma, Washington, and Burley, Idaho, where it serves food manufacturers including McCain and Trident Seafoods. **TIPPMANN INNOVATION** announced that all QF+ In-Rack Freezing Systems sold after April 10, 2019, will be covered by a three-year parts and labor warranty. The increase from one year to three years is a result of continuous improvement in innovation and reliability. **②** 



## IS YOUR FACILITY A GOLD-STAR ENERGY LEADER?

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- ✓ GAIN RECOGNITION FOR YOUR EFFORTS TOWARDS IMPROVED ENERGY USAGE
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Congebec Logistics	Newport-St. Paul Cold Store
Hanson Logistics	

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

age, Co.

# COOL PEOPLE PROFILING INFLUENTIAL PEOPLE CONNECTED TO THE COLD CHAIN INDUSTRY



# SUDARSAN THATTAI

As Chief Information Officer at Lineage Logistics, SUDARSAN THATTAI is responsible for all facets of the company's information technology. He and his team focus on optimizing technology to drive customer value, expand service capability and make a global impact.

#### CF: As the CIO at Lineage, how did it feel to have Lineage named to Fast Company's 2019 list of the 50 Most Innovative Companies?

ST: Being named to Fast Company's list of Most Innovative Companies - and particularly coming in as the number one Data Science company on the list was an incredibly humbling moment for me and the entire technology team at Lineage. This prestigious honor celebrates Lineage's industry-leading innovations that help us fulfill our purpose of transforming the food supply chain using technological and big data capabilities to eliminate waste and feed the world. This recognition is a testament to the hard work, creativity and dedication of Lineage's technologists, mathematicians, physicists and engineers. I could not be prouder of their accomplishments or to have the pleasure of working with each one of them every day.

With its applied sciences team,
 Lineage has been compared

"We successfully cut our energy consumption through the breakthrough innovation of what we call 'flywheeling,' an artificial intelligence-based proprietary algorithm technology that studies how each building interacts with its environment."

# to a Silicon Valley tech company. Do you think that's accurate?

ST: Absolutely. We've re-imagined Lineage so that we can best solve the complexities of moving temperature-controlled products safely, quickly, and efficiently around the globe. Lineage embodies the dynamic, nimble attitude of a Silicon Valley startup, while operating in an industry that has been around for generations. Our team seeks to challenge the status quo, dreaming big about changing the world while also delivering meaningful long-term value to our customers. We are honored to be compared to Silicon Valley companies as technology is truly at the core of our operations, and it is what makes us not only a leading innovator, but frankly, a disruptor within the temperature-controlled warehousing and logistics industry.

#### CF: Lineage has been able to cut its energy consumption by 34 percent over three years. a.) How was the company able to do this? b.) Do you have goals to improve on that record and if so, would you use the same technologies or look to new innovations in the future?

**ST**: We successfully cut our energy consumption through the breakthrough innovation of what we call "flywheeling," an artificial intelligence-based proprietary algorithm technology that studies how each building interacts with its environment. It analyzes National Weather Service data to forecast costs over the coming days, then optimizes engine room operations. It successfully predicts when peak demand for energy usage will occur and avoids peak energy charges by cooling the warehouse in advance. As with all of our technology, we continue to perfect it each and every day, and we hope to improve on this record in the future.

#### CF: What do you think is going to be the next big thing in using data science to optimize technology.

**ST:** Further digitizing one of the last physical frontiers: the storage warehouse. At Lineage, we are building the smart warehouses of the future to accomplish this, using innovations like online location tracking and appointment scheduling, labor optimization and minimal touch inbound receiving. We also believe strongly in the power of giving customers more visibility into the data that matters and the ability to act on that data in real-time to maximize their business processes. We are developing technologies that will allow us to do all of these things in a much faster and more efficient way.

### CF: If there was only one thing a 3PL could do to be more efficient and sustainable in its operations, what should that be?

ST: In my experience, the secret to a company's success with regard to efficiency and sustainability in its operations comes down to organizational culture. At Lineage, I am proud to say that our culture is highly, and perhaps unusually, aligned to our business strategy. Our values - which include Safe, Trust, Respect, Innovation, Bold and Servant Leadership – are reflected in the strategic initiatives we prioritize every year, in which we strive to serve our customers' extended supply chains. Aligning every team member to a common strategy via the company's culture will create a recipe for success that cannot easily be duplicated – just as we have done at Lineage. 🗶

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