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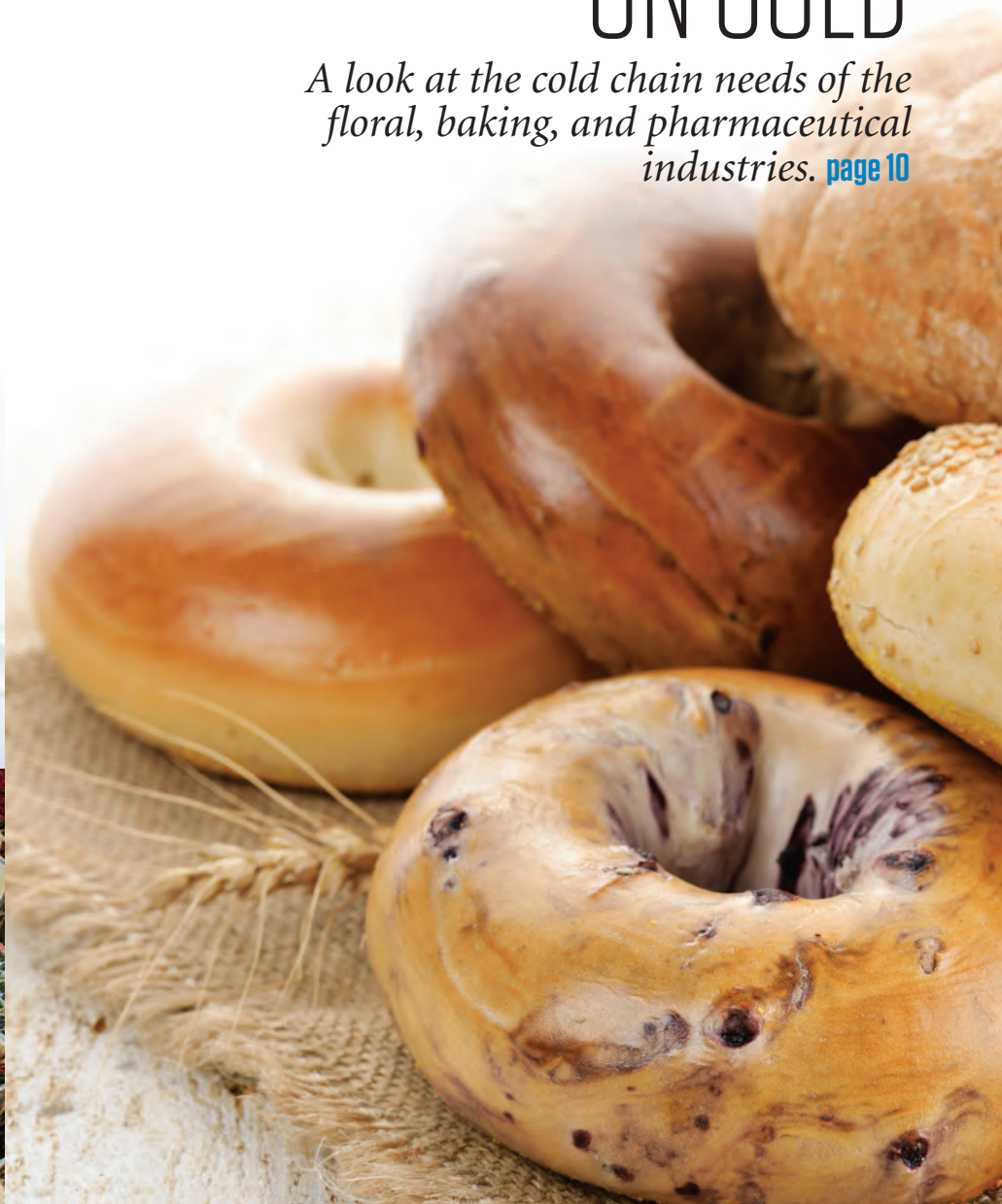
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### About the Cover

Cold chain companies are always looking to expand into new markets. This issue explores three industries that depend on the cold chain and what they require from a cold chain partner.



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The biggest advance this year was the launch of the Global Cold Chain Expo, a new partnership with the United Fresh Produce Association that gave the cold chain an integrated presence in a tradeshow of 15,000 customers where they saw firsthand the range of solutions our industry offers. I know many of you exhibited at and attended this event in June.

The foundation is there. We continue to build industry awareness to support growth – your growth. Now it’s up to all of us to get out there every day and capitalize on this, promoting and delivering the solutions our customers demand.

Please join our entire industry and make ourselves so relevant and so valuable that we will be irreplaceable. ☺



**EBEN JAMES**  
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 **International Association for Cold Storage Construction (IACSC)**, which provides a forum for innovative ideas, promotes standards of practice, and sponsors professional education programs for the cold storage construction industry.

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# FDA FINALIZES SANITARY TRANSPORTATION OF FOOD RULE

*Core responsibility for warehouses will be assessing for temperature abuse during transport.*

By Lowell Randel

The U.S. Food and Drug Administration (FDA) published its Final Rule on the Sanitary Transportation of Human and Animal Food on April 6, 2016. The rule is one of seven major rules that are part of the Food Safety Modernization Act (FSMA).

According to the FDA, the goal of this rule is to prevent practices during transportation that create food safety risks, such as failure to properly refrigerate food, inadequate cleaning of vehicles between loads, and failure to properly protect food. The focus of the rule is on food safety and not food quality.

## Who is Covered?

The final rule applies to shippers, receivers, loaders, and carriers who transport food in the United States by motor or rail vehicle. This includes food in intrastate commerce. The rule does not apply to exporters who ship food through the United States (for example, from Canada to Mexico) by motor or rail vehicle if the food does not enter U.S. distribution. Companies involved in the transportation of food intended for export are covered by the rule until the shipment reaches a port or U.S. border.

## Exemptions

- Companies with less than \$500,000 in annual revenue.
- Transportation activities performed by a farm.
- Food transhipped through the United States to another country.
- Food imported for future export and that is not consumed or distributed in the United States.
- Compressed food gases and food contact substances.

- Human food byproducts transported for use as animal food without further processing.
- Food that is completely enclosed by a container, except a food that requires temperature control for safety.
- Live food animals, except molluscan shellfish.

## Key Requirements

The Final Rule establishes key requirements for maintaining food safety across the supply chain. They include:

- **Vehicles and transportation equipment:** The design and maintenance of vehicles and transportation equipment to ensure that it does not cause the food that it transports to become unsafe. For example, they must be suitable and adequately cleanable for their intended use and capable of maintaining temperatures necessary for the safe transport of food.
- **Transportation operations:** The measures taken during transportation to ensure food safety, such as adequate temperature controls, preventing contamination of ready to eat food from touching raw food, protection of food from contamination by non-food items in the same load or previous load, and protection of food from cross-contact, i.e., the unintentional incorporation of a food allergen.

- **Training:** Training of carrier personnel in sanitary transportation practices and documentation of the training. This training is required when the carrier and shipper agree that the carrier is responsible for sanitary conditions during transport.
- **Records:** Maintenance of records of written procedures, agreements and training (required of carriers). The required retention time for these records depends upon the type of record and when the covered activity occurred, but does not exceed 12 months.

The Final Rule provides definitions and specific requirements for four categories of activities (shippers, loaders, carriers, and receivers) in the food supply chain. Given the definitions described below, many warehouses will fit multiple descriptions. Care must be taken to understand the roles and responsibilities for given activities under the Final Rule.

## Shippers

“Shipper” is defined as a person, e.g., the manufacturer or a freight broker, who arranges for the transportation of food in the United States by a carrier or multiple carriers sequentially. The Final Rule makes it very clear that brokers and other third-party providers can (and will) be considered shippers under the rule. In many cases, third party warehouses will be deemed to be the shipper when they arrange for the transportation of food on behalf of their customers.

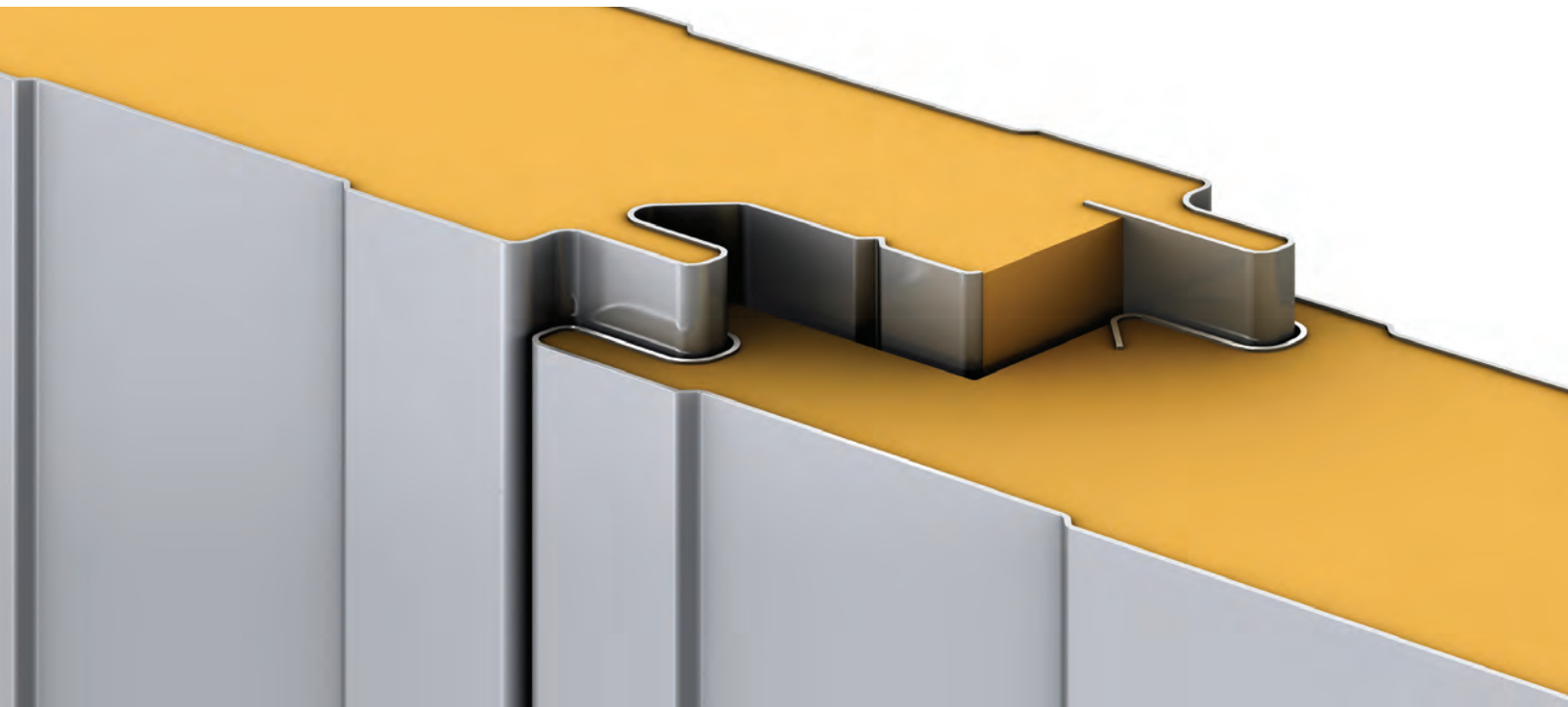
The Final Rule places a great deal of responsibility on shippers. Shippers must ensure that vehicles and equipment are in appropriate sanitary condition and specify sanitary specifications and necessary measures in writing.



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Shippers must also ensure adequate temperature control during transportation and specify in writing temperature requirements (including precooling). For bulk shipments, shippers must ensure that cargo from a previous load does not make food unsafe.

It is important to note that while the Final Rule places these responsibilities on the shipper, shippers can assign these responsibilities to others in the food supply chain through contracts and agreements.

### Loaders

“Loader” is defined in the Final Rule as a person that loads food onto a motor or rail vehicle during transportation operations. Warehouses and carriers are both likely to be loaders at times for the purposes of the Final Rule. Prior to loading, loaders must determine whether the vehicle or equipment is in appropriate sanitary condition and meets the shipper’s specifications. Loaders must also determine that the refrigerated compartment/container is adequately prepared, including pre-cooling (when applicable).

For loaders, it will be critical to ensure clear communication with the shipper to understand what specifications are required for the particular load.

### Carriers

“Carrier” is defined as a person who physically moves food by rail or motor vehicle in commerce within the United States. A carrier’s responsibility will depend in large part on its agreements with the shipper. When there is a written agreement with the shipper that the carrier is responsible for sanitation, the carrier must ensure that vehicles and equipment meet the shipper’s specifications. In addition, the carrier must pre-cool each refrigerated compartment when specified by the shipper. At completion of transportation, and upon request of the shipper, the carrier must provide the operating temperature for the load.

Carriers must also develop and implement written procedures for cleaning, sanitizing and inspecting vehicles and compliance procedures for meeting temperature control requirements and bulk vehicle provisions. When requested by the shipper, carriers must identify previous cargo for bulk vehicles and the most recent cleaning.

When the carrier and shipper agree that the carrier is responsible for sanitary conditions during transport, carriers must train their personnel in sanitary transportation practices. Carriers must also maintain documentation of the training.



The approach taken by the FDA to place the specifications of sanitation and temperature on shippers is likely to drive even more written agreements, with shippers seeking to shift some of these responsibilities to others along the supply chain.”

### Receivers

“Receiver” is defined as any person who receives food at a point in the United States after transportation, whether or not that person represents the final point of receipt for the food. A core responsibility for warehouses will be that of receiver. Receivers must take steps to adequately assess that food was not subject to significant temperature abuse during transportation. FDA suggests that steps to evaluate potential temperature abuse include:

- Determining the temperature of food in the load.
- Checking ambient temperature of vehicle and its temperature setting.
- Conducting a sensory inspection including whether there are odors indicating a problem.

### Records Requirements

As with most regulations, good documentation and records retention is required for compliance. The Final Rule specifies that shippers must retain records demonstrating that they have provided specifications and operating temperatures. These records must be retained a minimum of 12 months. Carriers must document written procedures to address cleaning, sanitation, and temperature control. Carriers must also keep records of personnel training, in situations where the carrier and shipper agree that the carrier is responsible for sanitary conditions during transport.

In addition to the documents specified, the rule also acknowledges that current industry practices include the development of written agreements. The approach taken by the FDA to place the specifications of sanitation and temperature on shippers is likely to drive even more written agreements, with shippers

seeking to shift some of these responsibilities to others along the supply chain. Records for these types of agreements must be retained for a minimum of 12 months.

### Effective and Compliance Dates

The Final Rule became effective on June 6, 2016. Large businesses will have one year from that date to come into compliance with the Final Rule. Small businesses have until June 6, 2018 to comply.

In preparation for compliance, GCCA members are encouraged to actively communicate with their customers and partners. Good communication and consistent understanding of expectations and responsibilities across the supply chain will be critical. In addition, the International Refrigerated Transportation Association (IRTA), a GCCA Core Partner, is currently developing a best practices guide to assist industry with compliance. Completion of the guide is expected in the summer of 2016. Sessions related to the guide are planned for the 2016 Assembly of Committees. @

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# THREE INDUSTRIES THAT DEPEND ON COLD

*A look at the cold chain needs of the floral, baking, and pharmaceutical industries.*



little more than a year ago, industry leaders announced the launch of a three-year IARW-WFLO Strategic Plan constructed around four “pillars” designed to move the association forward.

One of those pillars is growing the temperature controlled logistics industry by providing GCCA member companies exposure to new or under-represented product lines and non-traditional customers and subsequently, more revenue opportunities.

To that end, *Cold Facts* takes a look at three industries that depend on the cold chain and

examines their trends, storage and transportation needs and challenges, and what they require from a cold chain partner.

## **Baked Goods**

To understand the cold chain needs of the baking industry, we asked the folks at Vie de France Yamazaki, Inc., what their concerns

are in getting their products to market, and what they need in their cold chain partner.

Vie de France, for the most part, only ships frozen products. They have four plants producing frozen products and one small desert plant in Elmford, New York, that makes cakes, cookies, and muffins. They have a plant in Denver, Colorado, which ships frozen and fresh products but the fresh shipments are a very small part of the business, says Steve Posin, Vice President of Sales and Marketing. “Our main business is producing croissants at our plant in Alexandria, Virginia, and together with our major bread plant in Atlanta,



*Vie de France primarily ships frozen products, and for many of them it is critical to maintain a temperature between 0 and -10 degrees Fahrenheit.*

Georgia, those products cover two thirds of the country. Then we have a plant in Los Angeles, California, that produces both bread and croissants and those products are distributed to the other one third of the country.”

Vie de France produces and ships frozen dough, partially baked (80 percent) bread and fully baked bread. “We sell most of our products to food service customers. We do not own warehousing; however, we work with two major third-party logistics companies with four distribution centers to ship our products,” Posin explains.

“We have a few large customers, accounting for about five percent of our volume, that pick up full truck loads at the plants but everything else goes out less than truckload so we have to participate in a consolidation program or LTL,” points out Frank Schneider, Vice President of Distribution. “Transportation is a really important element for us because our product is so temperature sensitive,” Schneider says. “Above zero degrees or below minus 10 and something bad is happening to our yeast. The fewer times we have to expose our products to thermal abuse, the better, so consolidation programs are the best of the bad ways to get our products to market.”

Schneider admits that one of their biggest challenges is the pre-cooling process prior to shipping.

“We’re leaving that quality control in the hands of the truck drivers so there has to be as much transparency through on-board telemetry as possible,” Schneider points out. “I need my carrier contract to provide us with computer systems we can interrogate or employ to download all the data on a particular load in question. And that way, when we do on-time delivery reporting, I don’t have to rely on someone’s memory or honesty. And that’s good for the people operating or brokering the truck as well.”

In addition to transportation, Schneider wants to know how their cold chain partner cares for their warehouse, what the dock temperatures are, how processes work to prevent product sitting in the open air for too long, and what the process is for locating lost product – in short, good care of the product through best practices in inventory management and procedures. And, Schneider adds, fair billing that is easily audited.

## COME MEET THE BAKING INDUSTRY

The Global Cold Chain Alliance is excited to bring a Cold Chain Pavilion to this year’s International Baking Industry Exposition (IBIE).

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**IBIE will be at the Las Vegas Convention Center,  
October 8, 2016 - October 11, 2016.**

For Posin, the best practice he wants from his cold chain partner is service level reporting on at least a weekly basis. “I want to know what’s happening with service level issues, picking errors, delivery times, quantifiable actions, and operational efficiencies.”

Schneider says they also require a BRC inspection on every warehouse. “We’re double checking the accuracy of shipping and receiving, that safety and Hazard Analysis Critical Control Point (HACCP) programs are up to date, and that best practices in stock rotation are employed.”

Schneider points out that the shipping parameter for many of their products is only 42 days, a short time to have product in stock, so mis-rotation could result in a lot of product being written off.

Looking to the future, Posin says one of the biggest trends in baked goods is food with a story. “Clean labels, no GMOs, and organic products will drive a lot of food industries, not just ours.”

So far this year, Posin says food service sales are higher than retail because people are eating out more or purchasing grab and go. “The big consumer block of millennials don’t want to cook – they want to eat and run so we’re looking at new products that are portable and easy.”

And to further address the needs of those millennials, Posin believes that as a company, if you’re not extremely active on social media, you won’t be relevant in five years.



Giving healthcare companies the ability to efficiently move and monitor their temperature-sensitive products, leverage new, innovative distribution channels to reach customers in existing and emerging markets, and mitigate product damage or spoilage are key priorities for UPS.”

—SUSAN LI, *Healthcare Strategy Manager, UPS Temperature True®*

### Pharmaceuticals

UPS, a global expert in healthcare logistics, shares with *Cold Facts* trends impacting the pharmaceutical cold chain and best practices for storing and transporting refrigerated, frozen, and cryogenic pharma and biopharma.

“Giving healthcare companies the ability to efficiently move and monitor their temperature-sensitive products, leverage new, innovative distribution channels to reach customers in existing and emerging markets, and mitigate product damage or spoilage are key priorities for UPS,” says Susan Li, Healthcare Strategy Manager, UPS Temperature True®.

“There is an increasing number of specialized biopharmaceuticals being brought to market that require a cold chain environment, and at the same time, the demand for these products is also growing globally,” Li points out. “More clinical trials are requiring stricter temperature controls. The explosive growth of cell- and gene-based therapies requires cryogenic storage at temperatures minus-150°C and below. From blood and vaccines and direct-to-patient medicines, there are all kinds of products that require an efficient, agile and integrated cold supply chain.”

Li says another trend is the challenge of transporting pharmaceuticals and biopharma products over farther distances. “As healthcare companies expand into emerging markets, they have to figure out how to keep temperature-sensitive products safe and compliant for longer journeys — often when in-market infrastructure is lacking and temperature fluctuations during transportation are more extreme. Regulators around the world are requesting a higher level of protection for all cold chain shipments, whether they require a 2 to 8 degree Celsius temperature or a controlled room temperature (CRT) environment. This is changing established practices across the industry.”

Li sees ongoing technology in cold chain packaging as getting more innovative. “New materials are being introduced to improve insulation — aerogels, thermal blankets, etc. — or to maintain temperature within a very precise temperature range (PCMs).”

Addressing logistics best practices, Li says in order for healthcare manufacturers and life science companies to get it right in the cold



UPS ships an increasing number of specialized biopharmaceuticals that require a cold chain environment.

chain, they need tested and proven solutions in packaging, transportation, and warehousing that can be executed over and over for high-value, vital healthcare products. “In most cases, this involves collaborating with a reputable third-party logistics company,” she says.

Furthermore, Li says healthcare companies should put a sharper focus on contingency planning. “Risk mitigation plans need to look at factors such as whether companies have the protection methods in place for getting clinical trial shipments to and from complex regions.” She continues, “This includes whether they have factored CRT into their broader temperature-sensitive product protection plans; whether they have the right packaging and transportation solutions for all types of products; and if they have a means to intervene when temperature-sensitive shipments go off course.”

Finally, Li shares that UPS has more than 50 healthcare-dedicated facilities globally with temperature-controlled areas, and more than 7 million square feet of space. The transportation giant also looks for partners in the cold chain. “We collaborate with tier-one companies with strong quality records, and we audit them frequently to ensure their performance remains in line with strict UPS standards of cold chain excellence.”



*At Royal Flowers in Ecuador, boxes of roses are typically barcoded so they can be tracked throughout their journey. Holes in the sides of the boxes allow for “pre-cooling” with forced air to ensure a low temperature inside the box at various stages of their journey. (Photo courtesy of Royal Flowers.)*

**Fresh Cut Flowers**

The supply chain for fresh cut flowers is made up of growers, importers, shippers, breeders, and brokers, among others.

There are a few growers in Florida and

more in California, and like the farm to table movement in fresh food, locally grown or American flowers have a powerful appeal and interest for many consumers.

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however, is here to stay, according to Bruce Wright, Editor of *Flowers & Magazine*. "Imports account for more than two-thirds of all the cut flowers purchased in the United States," Wright says. "Fortunately, the systems and techniques available for shipping flowers long distance are better than ever for those who take all the right steps, like making sure flowers are fully hydrated and properly processed, packaged and pre-cooled before they are shipped."

"These imported flowers end up in all sorts of different places such as supermarkets, wholesale florists, and garden centers and then are often redistributed via the produce supply chain with its own warehousing," explains Williee Armellini, floral industry veteran and Editor of the popular floral-specific website *Flowersandcents.com*. "The biggest attraction of our industry for third party providers is that the flowers often end up in cities where they need a staging area and place to rest before being further divided for market to door delivery," Armellini adds.

Add-on services are also a common need in the cut flower industry. "My family has

been in the industry a long time and they have freight forwarding, customs brokers and logistics specialists in each country they do business with – there's a whole network of these specialists," Armellini says. "From a holiday transportation standpoint, almost everybody uses outside carriers and often the truckers specializing in produce transport can offer very competitive rates but just like with produce, flowers are fussy and truckers can get in trouble if they don't maintain tight control on the temperatures."

"Temperature is the controlling factor for keeping flowers fresh for as long as possible as out of range temperatures cause flowers to use up their stored reserves," explains Terril Nell, a consultant who was the long-time Chairman of the University of Florida's Environmental Horticulture Department. "It's all related to humidity – as temperatures rise, flowers will dry out rapidly so you try to maintain humidity of about 80 to 85 percent – over 90 percent and you risk problems with the mold disease *Botrytis*."

Another challenge of storing and transporting flowers is that generally, they should

not be stored in the same cooler as produce, according to Nell. "Specific produce give off a lot of ethylene and that can kill flowers. Ideally, warehouses would have one large cooler for flowers that is not connected to storage of fruit and vegetables." Nell adds that flowers shouldn't even be loaded and off-loaded on the same dock as produce.

"Floral shipping can become a logistical distribution nightmare unless you really have your act together," Nell points out. "First, you have to be aware of the total distribution system. It's not as simple as taking flowers off the plane in Miami. If the flowers have been sitting on a plane or tarmac in 80 degree temperatures, the boxes heat up and it might take 12 to 15 hours before you get them down to the desired temperature. In that case, they might be in need of a special cooling facility to rapidly lower their temperature."

In addition, Nell points out that the logistics system for floral requires quick turnover at each stage of the supply chain, and most companies don't want to store for long periods. "During the holidays, growers and others



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might store for one to two weeks or longer prior to distribution and if you don't know that history and try to store for additional time, that could be the breakpoint at which you lose the flowers."

Despite these complexities, the good news for third-party cold chain companies is that the cut flower industry has a definite need for overflow storage and transportation. "I know a company that used to have two of their own coolers and now rent cooler space. They do this because it's more cost effective and because they want to put that part of their business model in the hands of cold storage experts," Nell acknowledges.

Looking at trends that are impacting the floral supply chain, Wright points out that one of the latest developments is sea freight. "Many types of cut flowers can emerge from a long sea trip (up to two weeks) fresher and healthier than if they'd reached their destination by plane because onboard a ship, flowers can be kept colder with better control over the temperature. That's just as important, if not more so, than the speed of shipping."

Wright adds that this option doesn't work for all types of flowers but when it does, the cost of shipping – and the carbon footprint – can be cut in half. It also opens up the possibility of more flowers coming to North America from Africa.

Meanwhile, flowers that are flown into Miami usually travel to other cities by truck but because Americans are also buying more fresh fruit and vegetables from overseas, there's more competition for trucks that can handle perishables. Wright says that, along with new regulations on truckers, is jacking up the price of trucking services.

Armellini believes one of the most overwhelming trends in the industry concerns who's buying flowers, how they're buying them, and how they are being delivered. "The level of distribution gets smaller as the world gets bigger and how flowers will be delivered in the future is the next big trend. Maybe an Amazon drone in your front yard bearing flowers?" Armellini quips.

Nell's advice to temperature-controlled logistics companies looking to expand their

services to the cut flower trade is to get educated as quickly as possible. "Go visit growers and ask what they're looking for, go to Miami International Airport and observe how the flowers are shipped and broken down further for distribution, and get good technical advice."

In addition, Nell adds, upper management has to be committed to implementation. "This means both applying best practices as well as committing to doing the basics right – not just paying lip service but ensuring that these flowers are at the correct temperature and humidity, every hour of every day." ☞

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Industrial Refrigeration and Thermal Construction



# CERTIFICATION GENERATES MORE BUSINESS FOR SODUS COLD STORAGE

*Teamwork and upfront planning were keys to a successful audit.*

By Sheryl S. Jackson

**W**ith only two warehouses, 18 employees and one truck, Sodus Cold Storage does not seem to be the typical candidate for a time-consuming, intensive, third-party audit.

However, the three-month process to prepare for the audit – learning about the certification process, creating Standard Operating Procedures (SOPs) for every task, training employees, and inspecting and upgrading facilities where needed – paid off for the small company.

Not only was the company awarded a score of 940 out of 1,000 points on the first audit, but it has attracted new customers and grown the company significantly during the past three years – now employing 43 people and increasing business by 500 percent.

“We decided to pursue AIB certification because our largest customer at the time notified us that they were going to require third-party certification for all business partners moving forward,” says Marc Edwards, Vice President of Operations. “The customer was AIB-certified so we decided to pursue the same certification.”

Audits were nothing new to Sodus because

the company, like all cold storage facilities, routinely underwent various inspections and audits by organizations to ensure food safety and security, but the AIB survey was “the hardest audit we ever underwent,” Edwards says. “When the inspector arrived wearing a utility belt and carrying a mirror on a long stick to look underneath equipment and shelving, I knew it would be unlike any other audit.”

Although the impetus to achieve AIB certification was a customer’s requirement, Edwards admits that this is the future of the cold storage industry.

“Everyone wants to know where food has been and how it has been handled – every step

must be traceable,” he explains. The difference between the more complex certification processes and previous audits is the evaluation of all aspects of the operation – not just the facility and the handling of the product, he adds.

“The greatest challenge was developing written SOPs for every job,” Edwards says. While the company had generic SOPs, AIB certification requires job- and site-specific procedures for all positions. Because facilities differ, the same job at each facility might differ because the equipment, staffing or warehouse layout is different. “In addition to the SOP, we also had to document that each employee received training on the procedures and passed a test proving they understood the procedure,” he says.

Edwards had to develop 75 SOPs in preparation for the audit. Although it was time-consuming, he points out that the best way to make sure the procedures accurately reflect what employees did was to spend the day with each of the 18 employees – observing and documenting what they did. Job- and site-specific SOPs cannot be developed by one person sitting in an office, he points out.

Other advice that Edwards offers smaller operations preparing for a comprehensive, third party audit includes:





Sodus Cold Storage underwent and passed a comprehensive AIB certification audit. The company says certification is crucial to the future of the cold storage industry.

- Learn about the certification. Take advantage of courses offered by different organizations before you begin preparing for an audit. Knowing upfront what you need to do, and how much additional help you'll need to prepare, helps streamline the process.
- Get organized. Once Edwards understood all of the tasks that had to be completed, he created a timeline showing each task along with start and completion dates. This is also a good way to identify other employees or outside vendors that can handle some of the tasks.
- Communicate with employees. "It was an advantage for us to have only 18 employees because we all wore multiple hats, and it was easy to keep everyone in the loop," Edwards admits. "I sat down with everyone and told them this is where our industry is going, and even though it might require some areas, such as maintenance, to change some of their traditional processes, it was important for our future."
- Practice the audit. An important part of AIB's service was a "practice" audit that occurred about one month before the actual audit. "This really helped by identifying a few items we needed to address and giving us time to correct them before the final audit," Edwards notes.
- Keep an open mind. "I looked at the audit as a chance to get a fresh perspective on our operations," Edwards says. "We learned some things that we might not have ever seen ourselves." For example,

guidelines call for bi-monthly pest control inside and outside the buildings so Sodus had the service performed every other week – one week inside and the next week outside. "I didn't take months that had five weeks into account until the auditor pointed out that we were buying more service than we needed," he says. "This wasn't an issue that affected food safety but it is an opportunity to improve operations."

Preparing for the audit also made everyone in the company more aware of the little things that can affect food safety and resulted in a change in the receiving department at one warehouse.

Truck drivers used to come into the warehouse while waiting for the shipping and receiving clerk, who was located in the front office. "Now, we are more aware of the risk of transferring allergens from pallet to pallet if they touch or lean against product," Edwards says. To minimize the risk, an office for the shipping and receiving clerk was set up where drivers come in to the building. Drivers and any other visitors no longer have access to the warehouse unless dock doors are opened for them.

The first audit required about \$100,000 to address maintenance and facility upgrades needed to comply with requirements, and to pay the audit fee and auditor's expenses, Edwards explains.

"Our buildings range in age from new to 30 years old, but our main facility was originally built in 1901," he says. "We hired roofers to fix leaks, re-painted areas, added new bumpers on docks, upgraded some mechanical equipment and improved the

aesthetics of the older building." While the cost was significant, Edwards says he considers it one of the best investments the company has made because the improvements generated by preparing for the audit have made it possible to attract new business.

Now that Sodus has successfully achieved AIB certification, Edwards' sights are set on SQF certification as the next step. "One of our new business partners, the Dr. Pepper Snapple Group, is SQF-certified, so maintaining the same type of certification provides more transparency," he says.

The additional business has meant hiring more people, including a new position that oversees safety, and bringing more people into the audit preparation process, says Edwards. "We undergo an AIB audit each year, and I have the warehouse supervisors work with me to evaluate SOPs, train employees and make sure we're prepared."

Audit scores have never been below 900 out of 1,000 possible points for the past three years, and Edwards attributes the success to a good team. "Everyone is working toward the same goal, and we've been clear about the importance of certification," he says. "Employees see the benefits – new business that results in larger workforce, better equipment, a new employee break room and company picnics!"

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The loading dock at Polo Norte Cold Storage, Costa Rica. Over 500 trucks ship in fresh apples from Chile for the Christmas holiday season. The majority of the trucks arrive with gen-sets as the delays at the ports can be long. (Photo courtesy of Mark Washburn.)

# CENTRAL AMERICA LEADS IN PRODUCE EXPORTS

*Transportation is key to this lush produce market.*

By Karen E. Thuermer

**W**hen it comes to produce, Central America is geographically blessed given its close proximity to the world’s largest consumer market – the United States.

“We can supply both the U.S. East and West Coast in no more than four days,” says Allan Safieh, CEO, of Guatemala-based UNISPICE Corp. “Product can be shipped from Guatemala to Miami via sea in three days; four days to California. We can truck through Mexico to Texas in four days.”

Produce can also be shipped by sea to Europe thanks to improved steamship

service. Safieh stresses that air shipments are efficient from Guatemala, especially since pre-coolers for perishables are available at the international airport for all exporters. “The biggest challenge is the holidays, however, when there is not enough cargo space for the produce,” he adds.

Although shipping from Central America has improved vastly over recent years, some

issues still remain. Value Chain Agriculture Consultant Mark Washburn points to pre-cooling of produce post-harvest while the product is being pulled from the field. “Many times perishables are loaded right into containers, but the containers are not made to pull out the field heat to lower the temperature quickly,” he says.

Unless an exporter is involved in every step from farm to shipping and utilizes modern equipment, pre-cooling promptly after harvest can significantly impact product quality and shelf life. In some situations, product is picked and taken to a location that does not have air conditioning. “It will remain there waiting for containers,” Washburn notes.

Safieh's trucking operations in Guatemala run efficiently largely because his company controls the process from field through export. But Washburn says exporters elsewhere in Central America find that trucks are often delayed 1-3 days for one reason or another. "While the trucks wait, product is sweating, and truckers often turn off their reefers to save fuel," Washburn explains.

The problem is especially bad between Costa Rica and Nicaragua, which suffers from recent disputes over the correct delimitation of their common border and the interpretation of the navigation rights on the San Juan River.

"Costa Rica bashes Nicaragua, and Nicaragua bashes Costa Rica," he says. "It's a matter of, 'We'll teach you, and you'll wait for hours to get through.' The issue has slowed things down tremendously."

Major importers of fresh produce from Central America are particularly being impacted by the problem. "Wal-Mart, which built a central distribution center, is now looking to build smaller distribution centers in various countries because they cannot depend on the transport to get product in good quality," Washburn observes.

Further, some containers are being pirated, particularly in El Salvador and Honduras, as well as those in transit to Costa Rica. "It's common for trucking lines to carry security," he says, adding the issue isn't big in Nicaragua where the government has iron-fist control.

GPS systems have helped circumvent some cargo theft. "GPS is also increasingly being used to track the whereabouts of the truck drivers themselves to make sure they aren't messing around or hanging out at their house," he comments.

While trucking companies in Central America are getting bigger and more sophisticated, Washburn advises to be leery of independent truckers since some do not have GPS systems.

Safieh emphasizes that the infrastructure at most seaports themselves remains an issue since many have not been improved for well over a decade. "But trade has grown," he remarks. "Central America should have more efficient ports so there are faster ship turnarounds."

A proliferation of cold storage facilities at seaports helps, particularly on the country's east coast. "If the ship doesn't come or the port goes on strike, the shipper can keep its products in cold storage if necessary," Safieh says. "The product can keep cold as long as the facilities

are run correctly, which happens 99 percent of the time, and packaging is done right."

Improvements have especially been made in Costa Rica, a country Washburn admits is a leader because of the sheer volume of bananas and pineapples it exports. Costa Rica, which is the most advanced economy in Central America, is also the most expensive country in the region in which to operate. Consequently, many companies are now moving from Costa Rica to Nicaragua where costs are cheaper.

### Government Regulations

Another element to successfully transporting perishables across borders is having all paperwork in order. Safieh explains that cross-border transactions are often not an issue if good relationships are established with authorities and paperwork is correct. "We have all controls in place and send our paperwork in advance," he says.

To do business in the United States, a number of requirements must be met, such as the U.S. Food and Drug Administration (FDA)'s Hazard Analysis and Critical Control Points (HACCP) certification and measurable best practices.

"Today the FDA not only requires that shippers have a HACCP program; whoever is importing that product into the United States also must take responsibility for that product," Washburn says.

The issue has its roots in the Food Safety Modernization Act (FSMA) that was signed into law in 2011. For local producers in the United States, FSMA requires all sectors of the food industry to either implement a HACCP program or prepare a safety program that closely resembles it.

A subchapter of FSMA known as the Food Safety Verification Program (FSVP) deals with foreign processors. FSVP requires both the processor and importer to register with the FDA before importing. Upon doing so, an 11-digit number is issued that corresponds to the company. All invoices require FDA registration numbers for processors and importers.

Under FSVP, the importer is also required to prepare a Hazard Analysis and Risk-Based Preventive Controls (HARPC) assessment program for each food product imported.

"A HACCP program is quite similar, and rumor has it, it's acceptable," Washburn notes. "The representative must assure the program is up-to-date and available for FDA inspection at any time."

The importers verification process may contain a combination of the following: on-site inspection/audits; review of foreign supplier's relevant food safety records; review of the foreign supplier's compliance history; and sampling and testing of product.

"From my years of experience exporting from Central America to the United States, the buyers were the driving force in setting the minimum requirements for product verification," Washburn remarks. "An in-place HACCP program and third-party audits were a prerequisite to be considered. This was not a U.S. government initiative but implemented by the private sector as a proactive approach to food safety and more importantly, avoiding any potential liability issues. In many cases, processors are more than happy to comply in order to compete."

In most cases, companies in Central America that are exporting are either HACCP certified, ISO22000 (Europe's equivalent which includes among other things a HACCP program) or are in the process of doing one or the other. "The FSVP will have minimal affect other than additional paper work," Washburn says.

He also stresses that the importer of record (located in the United States) will be required to take on a very serious role as they will now be personally liable for product(s) imported.

"This raises some concerns," Washburn says. "Although Central America is a relatively known entity and finding importers to represent processors from this region is relatively easy, new processors or unknown processors with little or no track record may find it quite difficult to find an importer willing to represent their product."

Helping many growers and exporters in Central America improve the productivity and competitiveness of the agricultural sector is the Inter-American Institute for Cooperation on Agriculture (IICA). IICA is charged with strengthening agriculture's contribution to the development of rural areas and the well-being of the rural population, improving agriculture's capacity to mitigate and adapt to climate change and making better use of natural resources, and improving agriculture's contribution to food security. ☞

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# TOP 10 EMPLOYEE SAFETY TIPS

*Guidance and resources to help establish a culture of safety in the workplace.*

By Keith Loria

**D**espite education and safety checklists, an unfortunate number of accidents still occur in the cold chain environment each year, and that can lead to decreased output, a stoppage of operations, and injuries that may lead to financial violations.

The way to minimize these “mistakes” is to ensure your employees are prepared for each day and that safety is always top of mind.

Here are 10 safety tips that all employees should pay strict attention to and practice on a daily basis.

**1** It's vital that all workers think about the job ahead of time and not just rush in without considering all possibilities that could happen, notes Gary Ganson, CIH, CSP, Director of Industrial Hygiene Services for Nova Consulting Group, Inc. “Consider all the risks involved with your position and then see how to manage, control or eliminate them,” he says. “People need to choose to follow the safety rules and become more responsive to the safety in their lives.” All employees should follow a strategy of pre-task planning and learn to look and listen before jumping into a job.

**2** Ganson shares that employees should ask themselves a simple question: “Is safety personal, relevant and important to me?” Workers need to have conversations with management and discuss how to make safety more a priority in the work environment. If it's the fault of management for not stressing it enough, this needs to be taken care of immediately. But if it's just not something the

employee realizes is vital, the point needs to be driven home.

**3** Talk with people on a daily basis. “The success of workplace safety depends on the involvement of all. The best way to achieve this is to find ways to customize our messages, which can seem easy but is quite complex due to the diversity of employees,” says Jean-Sébastien René, Prevention & Quality Assurance Advisor for Congebec. “When people feel heard and know that their opinions can positively influence the collective safety of their work environment, they become the agents of change.” Of course, changing mindsets and

old habits is not easy, which is why conversations are necessary.

**4** Another tip from Ganson is for employees to learn from their mistakes. “They should watch out for and learn from near-misses or close calls,” he says. For example, if they have experienced an accident or near-accident with a piece of equipment they aren't too familiar with, they should be certain that they bone up on how it works properly and take extra effort that all goes according to plan. Also, Ganson suggests employees should be open to change when someone else speaks to them regarding their own personal safety and the safety of their co-workers.

**5** A key to safety among employees is regular maintenance checks. “Employees should be performing monthly assessments of protective equipment to identify safety hazards and understand what safeguards are needed to mitigate or eliminate hazards,” says

## HERE IS A LIST OF SEVEN RESOURCES THAT EMPLOYEES CAN UTILIZE FOR MORE TIPS AND ADVICE.

1. Company Safety and Health Written Programs
2. Company Safety and Supervisor representatives
3. OSHA online
4. State OSHA consulting services
5. Professional associations such as the American Industrial Hygiene Association (AIHA) and the American Society of Safety Experts (ASSE)
6. Local professional chapters
7. Other employees

Rick Stevens, Director of Safety for Ameri-cold. "This will help reduce the potential for injuries and worker's comp claims."

**6** Stay aware of the latest safety measures and advice from both inside and outside resources dealing with the cold chain industry, René says. Whether it's government resources such as the Occupational Safety and Health Administration (OSHA) or the Canadian Centre for Occupational Health and Safety (CCOHS) or research groups such as the Federal Motor Carrier Administration's Compliance, Safety, Accountability (CSA) program or the Institut de Recherche Robert-Sauvé en Santé et en Sécurité du Travail (IRSST -- leading occupational health and safety research center in Canada), there's a lot of information available on ways to stay safer in a work environment. Groups on LinkedIn or Facebook are also good places to learn information. "Exchange between professionals in the same line of work provides a priceless perspective," Stevens says. "Discussing the same problems in similar environments offer simple solutions and can be easily put to use in everyday operation."

**7** Keep it simple. René notes that with the industry being so regulated on so many levels, sometimes too many details about safety programs can be confusing to an employee. "At Congebec, we have given ourselves the mandate of simplified or occupational health and safety procedures while remaining compliant with the law and regulation," he says. "We strive not to create procedures longer than one page when possible. Thereby it is easier for employees to retain and implement them in their daily task. The more simple the procedure, the better chance we have to create, what I call, a safety reflex, giving a safe working environment for all."

**8** All employees should focus on engaging in the practice of increasing awareness of safety hazards and be capable of knowing one when they see it. "Give yourself permission to speak up when you sense danger or a hazard exist," Ganson says. "If you perceive something is not safe, don't do it, and speak up to find out how to make it safe." He adds, too many times employees become complacent and don't pay enough attention to safety on the job, at home or on the road.

**9** Stevens notes employees should review all safety policies that the company has offered. Even if this means going back to those first booklets, pamphlets, and software that's handed out the first week of the job. For any questions that come up, or you realize there's something you are not doing, review with management. If this is something that an employee feels needs to be improved, Stevens recommends starting a safety committee among workers and encourages dialogue about the past training.

**10** If something is broken, get it repaired or replaced and don't take any chances, Ganson says. This might seem like a no-brainer, but it happens more than people would think: "By using faulty equipment, you're not only creating a safety hazard for the warehouse, but you could be risking your own health or well-being," he says. ☞

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# ASSOCIATION NEWS

## NEWS ABOUT GCCA CORE PARTNERS



**IARW Chairman  
Eben James**

Eben James (Trenton Cold Storage, Trenton, Ontario, Canada) was elected as the 2016-2017 Chairman of the **IARW** Board of Directors. He plans to focus on expanding the reach of the organization and building awareness for IARW members as not

just third-party logistics providers, but the top experts in the cold chain.

“At the end of the day, we want to make our members so relevant, so knowledgeable, so credible and so financially effective to the supply chain, that a retailer or other customer will look to our industry first instead of ever considering execution themselves,” James said. “And, we want to accomplish this around the globe.”

Other new IARW officers elected for the coming year included Vice Chairman David O’Brien (Doboy Cold Stores, Hemmant, Queensland, Australia) and Treasurer Doug Harrison (VersaCold Logistics Services, Vancouver, British Columbia, Canada).

New directors-at-large members elected to serve three-year terms on the IARW Board are Mauricio Barrera (Basal Almacenamiento y Logística, Apodaca, Nuevo Leon, Mexico), Jason Dreisbach (Dreisbach Enterprises, Inc., Oakland, California, United States), Manuel Kabana (Frio Puerto Valencia, Valencia, Spain), Clement Lam (Swire Pacific Cold Storage, Shanghai, China), and Kevin Margeson (Commercial Warehousing, Inc., Winter Haven, Florida, United States).

Jason Lafferty (SnoTemp Cold Storage, Eugene, Oregon, United States) and Anthony Leo (RLS Logistics, Newfield, New Jersey, United States) were elected as new IARW North American Chapter representatives.



**WFLO Chairman  
Fabio Fonseca**

Fabio Fonseca (Friezem Armazens Frigoríficos Ltda., Jandira, São Paulo, Brazil) was named the 2016-2017 Chairman of the **WFLO** Board of Governors. He plans to focus on expanding the reach of the organization and building

up the international presence of WFLO.

“Members of GCCA already represent over one-third of the existing 5 billion cubic meters of cold storage capacity around the world,” Fonseca said. “This presents an exciting opportunity to grow our membership base by enhancing our resources and building relationships with cold chain companies in new parts of the world.”

Other new WFLO officers elected were Vice Chairman Nick Pedneault (Congebec Logistics, Québec City, Québec, Canada), and Treasurer Paul Henningsen (Henningsen Cold Storage, Hillsboro, Oregon, United States).

New board members elected to serve three-year terms on the WFLO Board include Brian Kyle (Burriss Logistics, Lakeland, Florida, United States), Kirk Peterson (Unisea Cold Storage, Redmond, Washington, United States) and Naudé Rademan (CCS Logistics, Cape Town, South Africa). Steve Tippmann (Interstate Warehousing, Fort Wayne, Indiana, United States) was re-elected to serve another three-year term as an WFLO Board Member.

Michael Jahncke (Virginia Tech, Hampton, Virginia, United States) was re-elected to another three-year term as the Scientific Advisory Council representative on the WFLO Board.



The **GCCA** Global NextGen Award recognizes outstanding young professionals in the world’s cold chain industry. Melissa Hunt, Director of S & D Logistics in Australia, was named the winner of the second annual award during a general session of the 125th IARW-WFLO Convention, held in April 2016.

Hunt represented Australia as the recipient of the Refrigerated Warehouse and Transportation Association of Australia’s (RWTA) 2015 Frank Vale Award.

Finalists for the NextGen Award are recipients of industry awards that recognize exceptional achievement by young professionals in the cold chain in a specific region or country.

The other nominees in addition to Hunt included:

**Colin Longmuir**, Warehouse Manager, Henningsen Cold Storage Co., represented North America as the recipient of the 2016 World Food Logistics Organization (WFLO) Don Schlimme Future Leader Award.

**Kane Thomason**, Logistics Solutions – Operations Manager, United Kingdom and Ireland for XPO Logistics represented the United Kingdom as the 2016 recipient of the UK Young Manager of the Year Award.




**IACSC** is launching a “Built by the Best Award” that will recognize an outstanding project team for the design and construction of a temperature-controlled facility. The award competition is open to project teams comprised of contractor/design-build companies and processor/end-user/warehouse/third-party logistics companies that meet the following criteria:

- The contractor or design-build company must be an IACSC member. The processor/end-user/warehouse/third-party logistics company does not need to be an IACSC member.
- The project may only include new building or expansion of existing buildings only. Retrofit projects will not be accepted.
- The building must maintain a temperature-controlled environment.
- The project must have been completed on or ahead of schedule.

IACSC will soon announce further details and criteria for this award competition.



**GCCA** has published a “SOLAS Container Weight Verification Requirements” guide that reflects new gross weight verification requirements for packed containers loaded onto ships. The requirements were issued by the International Convention for the Safety of Life at Sea (SOLAS) and are administered by the International Maritime Organization (IMO), a United Nations agency with responsibility for the safety and security of shipping. The revised requirements went into effect on July 1, 2016 and were enacted in response to concerns about the safety of containers that may have inaccurate declared weights. The guide is available to members of GCCA Core Partner organizations and can be downloaded at [www.gcca.org/resources/](http://www.gcca.org/resources/). 

# MEMBER NEWS

## NEWS FROM MEMBERS OF GCCA CORE PARTNERS

**AZANE** appointed Caleb Nelson as Vice President-Business Development. He has more than 10 years of experience in the refrigeration industry, with previous roles as a Refrigeration Application Engineer, Project Manager and Director of Refrigeration.



**BAJO CERO FRIGORIFICOS** invested in a new smart LED lighting system to create greater energy efficiency, savings in CO2 emissions, and better lighting conditions for the operation.



**DIVERSIFIED PORT HOLDINGS** promoted Chris May to Chief Process Officer. He will develop and implement systematic process controls across all business units. Troy Gouger was also named president of operations. He will be responsible for all day-to-day operations at each DPH location.



**THE INTERNATIONAL INSTITUTE OF AMMONIA REFRIGERATION** appointed Lois Stirewalt O'Connor as Executive Director of its nonprofit research and education arm, the Ammonia Refrigeration Foundation.



**LONE STAR COLD STORAGE (LSCS)** named Patty Bronaugh to its management team and Administrative Director. She was previously with American Cold Storage. LSCS also expanded its Richardson, Texas facility, adding over 10,000 pallet positions and doubling the storage capacity to 227,330 square feet. LSCS also gains 10 new dock doors and a larger variety of racking.



**PREFERRED FREEZER SERVICES** broke ground for a new facility in Chicago, Illinois. It will be the company's third in the Chicago area and its 36th in the United States. The company's Richland, Washington facility earned an Organic Handling Certification from accredited organic certifier Oregon Tilth. The certification represents the facility's

compliance with the USDA National Organic Program guidelines.



**SOUTHEAST FROZEN FOODS** is expanding its operations in Calhoun County, Alabama.

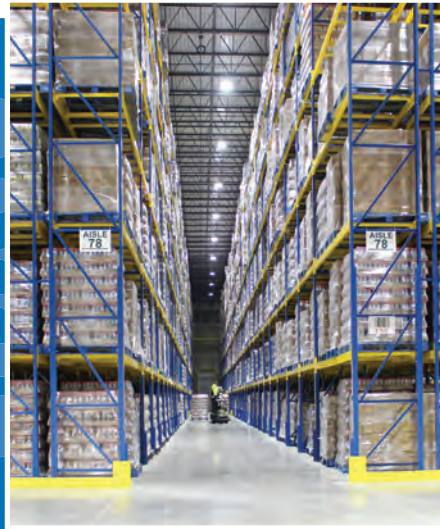
The expansion will invest \$6 million and create 30 new jobs. This is their third expansion over the last eight years, representing more than \$20 million in capital investments and over 100 jobs created.

*Continued on page 24*

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# SAC SOLUTIONS

## SCIENTIFIC ANSWERS TO COLD CHAIN CHALLENGES

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

**Q:** As Mexico enhances its ability to export fruits and vegetables, how will this affect imports from Central America to the United States?

**A:** I believe that Mexico will keep dominating the U.S. fresh produce market for several years to come, especially with those products that it grows best such as tomatoes, peppers, cucumbers, mangos, avocados, early season grapes, papayas, guavas – and winter vegetables – especially cabbage and carrots, melons, watermelons, limes, strawberries, onions, asparagus, and pumpkins.

The diversity and volume of produce, established infrastructure and logistics, and geographic closeness (in addition to the

growing Mexican population in the United States demanding these products, and making them popular among the rest of the population) are, and will continue to be, the driving force behind Mexico's produce exports.

Central and South America will continue to contribute those products they produce best, or that Mexico does not traditionally produce, or products that are mostly consumed in the very big local market. These products include apples, pears, and stone fruits from South America; bananas and pineapples from Costa Rica, Ecuador and Guatemala; melons from Central America; late-season grapes from Chile; and avocados from Peru.

*Answer provided by Elhadi Yahia from the United Nations Food and Agriculture Organization and a Scientific Advisory Council Member. ☞*

### MEMBER NEWS

*Continued from page 23*

**UNITED STATES COLD STORAGE (USCS)** added 8.6 million cubic feet of warehouse and distribution space in McDonough, Georgia. The facility brings the USCS total to 261 million cubic feet of warehouse space in 38 facilities across 13 states.

**VAPOR ARMOUR** released two new products in its vapor barrier line-up: Vapor Shield and Vapor Lock. Like Vapor Armour, these products are designed to eliminate ice and condensation in thermal-controlled buildings.

**VIKING COLD SOLUTIONS** announced the launch of its Solar Energy Storage system, which combines Viking Cold's patented Thermal Energy Storage system with rooftop photovoltaic to deliver green, cost-effective, around-the-clock energy management for cold storage facilities, supermarkets, and utilities. The system can reduce electricity peak demand by up to 90 percent. ☞

## 2016 CALENDAR

**JULY 11-13, 2016**

**2016 WFLO Institute Latin America**  
Panama City, Panama

**JULY 31-AUGUST 2, 2016**

**GCCA Assembly of Committees (AOC)**  
Washington, D.C., United States

**SEPTEMBER 1-4, 2016**

**Cold Chain Expo Eurasia**  
Istanbul, Turkey

**SEPTEMBER 14-16, 2016**

**IARW North Atlantic Chapter Meeting**  
Québec City, Québec, Canada

**SEPTEMBER 21-23, 2016**

**IARW Pacific Chapter – Fall Meeting**  
Sunriver, Oregon, United States

**SEPTEMBER 18-20, 2016**

**IARW Southeastern Chapter Meeting**  
New Orleans, Louisiana, United States

**SEPTEMBER 22-23, 2016**

**IARW Southwestern Chapter Meeting**  
San Antonio, Texas, United States

**SEPTEMBER 26-27, 2016**

**IARW Heartland Chapter Meeting**  
Chicago, Illinois, United States

**OCTOBER 8-11, 2016**

**International Baking Industry  
Exposition (IBIE) 2016**  
Las Vegas, Nevada, United States

**OCTOBER 11-12, 2016**

**Cargo Logistics America Expo  
& Conference**  
Long Beach, California, United States

**NOVEMBER 10-12, 2016**

**36th IACSC Conference & Expo**  
Ft. Lauderdale, Florida, United States

**NOVEMBER 10-11, 2016**

**GCCA Latin America Congress**  
Santiago, Chile

**DECEMBER 16-17, 2016**

**2016 Indian Cold Chain Expo (ICE)**  
Indore, Madhya Pradesh, India

\*For more details go to [www.gcca.org/events](http://www.gcca.org/events)



# NEW MEMBERS

NEW MEMBER COMPANIES OF GCCA CORE PARTNERS



## IARW-WFLO WAREHOUSES

**Bhagwan Veer Hanuman Cold Storage Ltd.**  
Samastipur, India

**Centro Nacional de Distribucion**  
El Consejo, Venezuela

**Gubba Cold Storage Limited**  
Secunderabad, India

**Hind Terminals Private Limited**  
New Delhi, India

**Narang Cold Storage**  
Indore Madhya Pradesh, India

**Polar Logistics**  
Guatemala City, Guatemala

## IARW ASSOCIATE MEMBERS

**Acuity Brands**  
Conyers, Georgia, United States

**Aluminum Industries**  
Shawnee, Kansas, United States

**Bridge Development Partners**  
Itasca, Illinois, United States

**Cornerstone Specialty Wood Products, LLC**  
Cincinnati, Ohio, United States

**Energy 350**  
Portland, OR, United States

**Howden Process Compressors**  
Renfrew, United Kingdom

**Lockwood Securities**  
New York, New York, United States

**Mobile Refrigerated Solutions Inc.**  
Ciudad de Panamá, Panama

**Nanovo Solutions, LLC**  
Ellicott City, Maryland, United States

**Navitas Systems**  
Woodridge, Illinois, United States

**Nordock Inc.**  
Westerville, Ohio, United States

**PlanLED Inc.**  
Federal Way, Washington, United States



## IACSC CONTRACTOR/ DESIGN BUILDER MEMBER

**ICMGAG SA de CV**  
Zapopan, Jalisco, Mexico

**WDS Construction, Inc.**  
Beaver Dam, Wisconsin, United States



## IACSC ASSOCIATE MEMBERS

**Mobile Refrigerated Solutions Inc.**  
Ciudad de Panamá, Panama



## IRTA MEMBERS

**Carrier Transicold & Refrigeration Systems**  
Syracuse, New York, United States

**Hind Terminals Private Limited**  
New Delhi, India

**Renting Colombia SA**  
Medellín, Colombia

**Roadrunner Transportation Systems, Inc.**  
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# COOL PEOPLE

PROFILING INFLUENTIAL PEOPLE CONNECTED TO THE COLD CHAIN INDUSTRY



**Robb MacKie**  
President and CEO  
American Bakers Association

Robb MacKie is the President and CEO of the American Bakers Association (ABA), the Washington D.C.-based voice of the wholesale baking industry. ABA represents the interests of bakers before the U.S. Congress, federal agencies, and international regulatory authorities. ABA advocates on behalf of more than 700 baking facilities and baking company suppliers. Its members produce bread, rolls, crackers, bagels, sweet goods, tortillas and many other wholesome, nutritious, baked products for America's families. The baking industry generates more than \$102 billion in economic activity annually and employs more than 706,000 highly skilled people.

**CF:** Could you describe some of the trends or new developments happening in baked goods cold storage management?

**ROBB MACKIE:** The growth of cold and frozen storage has been steady but appears poised for significant growth in the next few years. In addition to the food safety benefits, there are other potential benefits in terms of extending the shelf life of bakery products without a reduction in product quality, nutrition, and appearance. This in turn could lead to a rethinking of a number of current industry processes and ultimately lead to revamping production schedules allowing for greater workforce flexibility.



We are excited that our new strategic partnership with GCCA will allow bakers to more fully explore the potential growth opportunities for the industry."

Last fall at the big European baking show, the explosive growth of cold storage production was a key topic of conversation. It is potentially changing the landscape of the European baking market. Given the different market, energy and employment conditions in the United States, it remains to be seen whether the impact will be similar, but there will be a significant impact.

In our 2016 ABA Member Engagement Survey, we added a question regarding where ABA members thought the cold storage market was going. Sixty-three percent of ABA members think that the industry's capital expenditures in cold storage will grow in the coming years.

**CF:** GCCA has forged a strategic partnership with the International Baking Industry Exposition (IBIE), the largest grain-based food industry convention. Could you describe how this partnership came about?

**RM:** ABA and GCCA have worked together over the years on a number of policy issues such as food safety and EPA refrigerant issues. In fact, when ABA negotiated the settlement agreement for the baking industry with EPA, we relied heavily upon the technical data that GCCA and its members provided.

GCCA President and CEO Corey Rosenbusch and I were at a meeting a few years ago comparing notes about our respective industries and the seeds of a potential strategic partnership were sown. Since then we have continued to discuss the shape of the partnership and asked ABA members of

the IBIE Committee for their guidance and input on how the partnership could take shape. There is keen enthusiasm among the bakers, especially those that already rely upon cold storage options, toward the partnership. IBIE 2016 will be a good test of the level of interest from both ABA and GCCA members and will help determine any future expansion of the opportunity.

**CF:** How do you hope this partnership will benefit the baked goods industry?

**RM:** We are excited that our new strategic partnership with GCCA will allow bakers to more fully explore the potential growth opportunities for the industry. IBIE 2016 is the perfect venue for bakers to explore what the future of the baking industry looks like, and I believe cold storage will be a major part of that future. I think the GCCA pavilion and education sessions will really open our industry's eyes to the potential for innovation. For the GCCA members who participate, it will allow them to get a foot in the door early on the opportunities. ☞

# JAMISON: INDEPENDENT THIRD-PARTY TEST LAB RESULTS

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Creative Thermal Solutions (CTS) is a leading test lab for products in the HVAC and refrigeration industries. They test products that claim to offer increased energy efficiency, reduced energy consumption, and environmental sustainability. CTS labs recently conducted an extensive thermal performance analysis on HCR air doors. **The results verified that the HCR Model AC (Single Air Door) is 80% energy efficient\* when stopping air infiltration and energy transfer between rooms with different temperatures.**

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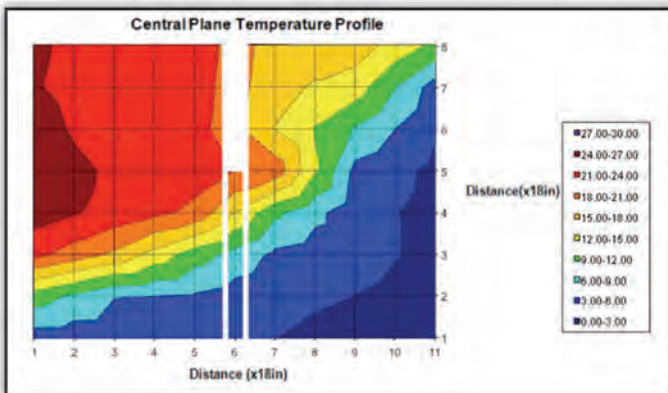
For more details about the CTS test results, visit [www.hcrairdoors.com](http://www.hcrairdoors.com)

**JAMISON** | HCR Air Doors

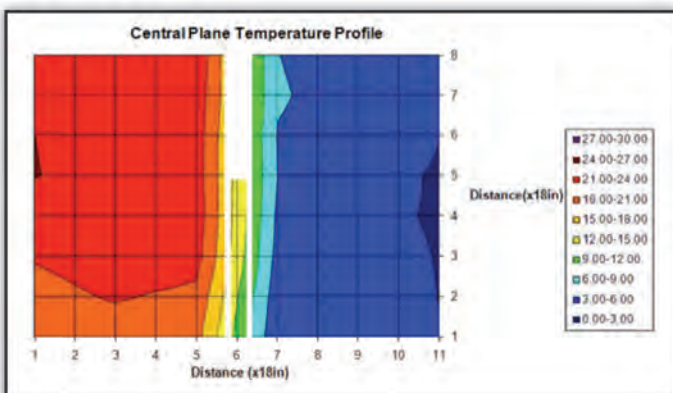
[www.jamisondoor.com](http://www.jamisondoor.com)

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\*For details and the lab performance report visit [www.hcrairdoors.com](http://www.hcrairdoors.com), contact your Jamison or HCR representative, or call 800-326-7700. Request the White Paper on the Evaluation of Horizontal Recirculatory Air Curtain Efficiencies – Cooler to Conditioned Space, D. Rhyner, HCR, Inc.



Temp profile: air door off



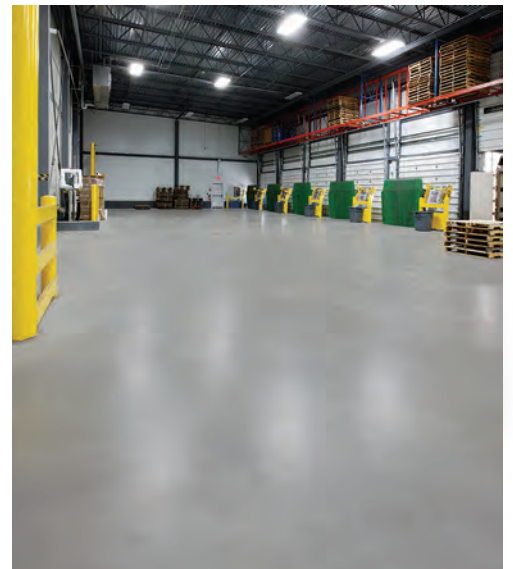
Temp profile: air door on

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