Food Rescue in the Cold Chain

GCCF initiative connects food recovery community with temperature-controlled logistics companies.

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About the Cover

The Global Cold Chain Alliance launched a new initiative to provide opportunities to food banks, food pantries and others working within the food recovery community to connect with experts in the perishables logistics industry. See the article on page 12.
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SUPPLY CHAINS CONTINUE TO BE A POINT OF FRUSTRATION FOR BUSINESSES AND CONSUMERS ALIKE. ALTHOUGH DRastically better today, there are many factors that continue to frustrate, but with proper planning, you can overcome these challenges. It will be important to build flexibility and resiliency into your planning and budgets to be able to adjust to the dynamic environment we must operate in today.

Delivery dates for most equipment in the cold chain – trucks, refrigerated trailers or even material handling equipment – can be as far out as one to two years from the order date. Flexibility must be built into your planning as the actual pricing is not guaranteed by the manufacturer until it has the materials and cost at the time of building.

Of course, we all hope prices ease as we move further down the road – but hope is not a sound business strategy. Another factor to account for is the cost of money at the time of acquisition. For a decade, the cheap cost of money combined with a low inflationary economy that grew our businesses was intoxicating.

Longer equipment acquisition lead times with variable cost of the asset, combined with the expected cost of money at the time of delivery, will need to be built into business plans.

More and more, fleets are looking at leasing as an option. The value is, they can leverage the buying power for both the asset acquisition and cost of money in these uncertain times. The benefit is the transfer of risk from your business to the leasing company. Transferring risk to a leasing company can provide financial stability during unstable periods.

As a result of extended lead time for equipment acquisition, fleets are forced to hold equipment assets beyond their original date of discharge. Fleets will experience increased cost of maintenance and equipment failure because of life cycle components.

Companies will need to account for this increased cost within their profit and loss, but this will require experience and historical data to understand when these components could potentially hit your budget. Depending on when, and how many, components may fail in each period. Fleets could find forecasting a rough ride.

To reduce risk, one option could be to acquire midterm leased assets with guaranteed fixed-usage charges to normalize cost and provide the business with a known cost of operation.

For fleet operations, using refrigerated transportation best practices is always the foundation that can yield benefits in uncertain times. We are in the process of updating our Refrigerated Transportation Best Practices guide, which is the foundation for the Cold Carrier Certification program.

The unknown is always the biggest risk for business. We will need to look for ways to remove risk and be able to plan for growth in this economy. In conclusion, it would be wise for all GCCA Transportation members to participate in the certification program as we face the new normal.

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Every five years, the U.S. Congress considers comprehensive legislation, commonly known as the farm bill, that addresses a wide range of food and agriculture policies. The last farm bill passed in 2018 and expires in September 2023. Congress is currently in the process of evaluating the effectiveness of current farm bill programs and future policy needs. GCCA is playing an active role in these farm bill deliberations and has developed a proposal to establish a new program to build cold chain capacity in developing markets.

GCCA is proposing that Congress establish the Supply Chain Enhancement Program (SCE) to focus on strengthening the global food supply chain for frozen and refrigerated products. GCCA envisions that SCE would be authorized in the Trade Title of the Farm Bill and provided with mandatory funding of $10 million per year. The Foreign Agriculture Service (FAS) would administer the program and utilize grants and cooperative agreements to build cold chain capacity by delivering needs assessments, training and technical assistance.

Major benefits of the SCE Program will include: 1) increasing export market potential for perishable products, 2) reducing food loss and waste, and 3) improving food security and nutrition in emerging markets.

Recent supply chain disruptions have highlighted the importance of having a strong and resilient food supply chain. USDA’s current trade programs are focused on promoting specific commodities or products, all of which are reliant on a functioning supply chain. To
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people in a world where currently 811 million people are hungry and 3 billion are unable to afford a healthy diet.

One of the largest limiting factors to further growing export markets for frozen and refrigerated U.S. food and agriculture products is insufficient cold chain capacity in developing countries.

According to the U.S. International Trade Administration, cold chain systems are crucial to the growth of global trade in perishable products and to the worldwide availability of food. Each year, billions of tons of perishable food products and U.S. exports valued at millions of dollars are lost due to poor cold chain systems in developing markets. By strengthening cold chain capacity in developing countries, perishable products can maintain their safety and quality. In turn, this increases their transportability and provides opportunities for agriculture producers to expand and diversify their market reach.

Increased investments in cold chain capacity will help to further decrease the more than 1 billion metric tons of global food waste created every year. Many of these losses result from lack of proper facilities, improper food safety handling procedures, and insufficient training for those personnel working in the cold chain. By improving the efficiency and effectiveness of the global cold chain, trade markets can be expanded and billions of dollars in U.S. exports can be saved.

In addition to increasing trade opportunities, strengthening cold chains can play an important role in reducing food loss and waste, a high priority for USDA. A recent report from the United Nations states that approximately 14% of food is lost, and an estimated 17% is wasted. The lack of an effective cold chain to maintain the quality, nutritional value and safety of food is a leading contributor to global food loss and waste, which has ramifications on people's health and livelihoods.

The report asserts that the lack of effective refrigeration is a leading contributor to this challenge, directly resulting in the loss of 526 million tons of food production, or 12% of the global total. This lost and wasted food would be enough to feed an estimated 1 billion

From left to right: Randel and McClendon at the U.S. Capitol.

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FOOD RESCUE IN THE COLD CHAIN

GCCF initiative connects food recovery community with temperature-controlled logistics companies.

Hunger is a serious problem around the globe. Also challenging is mass feeding and food rescue. This is the ability to take unused food, store and refrigerate it and transport it to people in need. The fact is, the world produces more than enough food to feed everyone. Yet each year, billions of pounds of food go to waste.
Millions of people across the planet do not have reliable access to the food they need. Feeding America reports that 34 million people in the United States alone are food insecure, 9 million of whom are children. In 2021, 53 million Americans turned to food programs. Every county in the United States experiences food insecurity, and food drives occur across the country, especially in times of natural disaster.

Consider the victims of a powerful tornado that raged across the southern United States last March and destroyed a city in Mississippi. Immediately volunteers from Operation BBQ Relief (OBR) rushed to feed the victims. The organization was founded in 2011 in response to an enormous tornado that hit Joplin, Missouri. At the time, competitive pitmasters from nine different states answered the call to feed displaced families and first responders.

“Together, they were able to serve over 120,000 meals in a 13-day period,” recalls Paul D. Peterson, Head of Development Initiatives at OBR. “This experience of building a network to feed individuals in need has been the inspiration for Operation BBQ Relief. Our focus is the most vulnerable population that otherwise would not have life sustaining support.”

Today, OBR’s mission is to deploy equipment, volunteers and food resources to provide hot meals and water to communities that have been decimated by disasters. To date, Operation BBQ Relief has provided more than 10 million meals throughout the United States and abroad following natural disasters, COVID-19 response, and through The Always Serving Project, benefiting the homeless, first responders, and veterans and members of the military.

In February 2023, GCCA connected with OBR when a request to help store 150 pallets of frozen pork before it went to waste was received on a Friday afternoon. Immediately, the association reached out to GCCA members in the region around Dallas, Texas, to see which member, if any, could help. GCCA members Lineage Logistics, RLS Premier and United States Cold Storage Inc. were keen to support and answered the late afternoon call ahead of a long weekend. Ultimately, Keith Mowery, Senior Vice President, Logistics at United States Cold Storage ensured the donation could be properly stored. The company’s local facility will store all the product for six to eight months. According to OBR, this donation will provide approximately 500,000 meals to people experiencing a disaster situation.

“What many people don’t know is that there are so many more ways to help end hunger than just donating food,” comments Diane Letson, Vice President, Food Industry Partnerships, Feeding America National Organization. “For instance, companies and individuals can advocate, volunteer, make a financial contribution, and even donate equipment or materials needed to move food, boxes, pallet jacks, racking, thermal blankets, cold storage space, backhauls or transportation.”

**Answering Questions**

The Global Cold Chain Alliance (GCCA) has had food waste on its radar screen for some time. Hearing that members were uncertain what to do with unwanted food, GCCA began by developing a handbook. “They were asking what could be done to keep it out of the landfill, how to reallocate it and get it into food banks,” says Amanda Brondy, Vice President, International Projects at GCCA.

Global issues relating to the pandemic, war in Ukraine, supply chain challenges and inflation have increased concerns over food loss, waste and insecurity. “More people began paying attention to the problem,” says Brondy. “We started looking at what we as an industry could do to support those working in food rescue. We began interviewing our members, their connections and those listed in the handbook.”

GCCA also connected and reconnected with other food rescue groups such as the Global FoodBanking Network (GFN). “We tried to understand from our members and food banks what the challenges were and how GCCA members and resources could resolve challenges or reduce the food waste burden on the food banks,” Brondy says.

**Food Bank Initiatives**

Subsequently, GCCA and its members came up with a series of recommendations that Brondy says continues to grow to this day. Those recommendations culminated in September 2022 when GCCA and its foundation arm, the World Food Logistics Organization (now the Global Cold Chain Foundation), announced a new initiative. Opportunities would be provided to food banks, food pantries and others working within the food recovery community to connect with, and glean knowledge from, experts in the perishables logistics industry.

One recommendation was enacted immediately. Complimentary GCCA membership has been offered to food banks and food pantries. Membership will give them access to resources on appropriate perishable commodity storage temperatures and handling, sanitary transportation, and warehouse and energy efficiency. It also gives them the ability to utilize the association’s Scientific Advisory Council, a panel of experts covering all technical needs of the temperature control industry. In addition, they can connect with the hundreds of companies worldwide representing experts in refrigerated warehouses, transportation assets and controlled environment construction.

GCCA is considering other initiatives as well such as specialized training for food banks in the form of webinars or auditable Cold Chain Institute courses.

“Domestically, we could look inward for resources from the U.S. Department of Agriculture, which puts a lot of work into reducing food waste,” Brondy says. “But for now, our focus is on organizing. We will be looking for opportunities where we can grow domestically and internationally.”
To date, Feeding America, GFN and OBR are among several organizations that have partnered with GCCA to support these initiatives.

Katie Pearmine, Associate Director of Global Food Systems Partnerships, explains that GFN became a GCCA partner because of its leadership in cold chain and food innovation as well as its commitment to philanthropy and building sustainable food systems. She sees the initiatives as strengthening food bank capacity while also supporting partnerships between food recovery organizations and companies handling and storing food.

Pearmine notes that GCCA members especially can provide support through cold chain technology to store food safely and efficiently before distribution. “While GFN has provided member food banks with funds to increase their cold chain capacity, GCCA members can amplify this work by providing our members with tailored technical assistance based on the food bank’s infrastructure and capacity needs,” she says.

Letson explains that by partnering with GCCA’s initiative, Feeding America can potentially reach a broader audience within the food and grocery industry. “This partnership can help convey not only these unique opportunities to get involved but also the severity of food insecurity in this country.”

She emphasizes that networking is critical to speaking and advocating on behalf of people experiencing hunger. “We can mutually benefit by supporting and assisting our members with information – both hunger statistics and industry conditions within cold storage,” says Letson. “We both have opportunities to educate our members and look for ways to support each other through speaking opportunities, educational materials, conferences and newsletters. Possibly we may advocate for legislation that could benefit both GCCAs and Feeding America’s members. As our food banks and their partner agencies join GCCA, there are myriad resources available including manuals on commodity storage, warehouse operations and sanitary transportation.”

Feeding America has also learned of requests to GCCA from food banks asking about ideal temperatures for new sorting and repack rooms, backup systems for cold storage, facility design, cold rooms, suppliers of precoolers and purchasing a used reefer truck.

Peterson emphasizes that partnering with GCCA helps OBR store necessary food items until a disaster strikes. “Often during disasters, the food that is needed is not immediately available to rapidly respond,” he explains. “This alliance can increase our response time and availability to the communities that need us most.”

Peterson also notes how moving forward, GCCA is a valuable partner in offering strategic locations to be readily available for use. “Imagine having storage on the West Coast and trying to rapidly respond to a disaster on the East Coast,” he explains. “The extra days of transport could be the difference between standing by and waiting on resources to arrive or immediately helping a community in need.”

In considering how GCCA members could benefit from its partnership with OBR, Peterson suggests that since Operation BBQ Relief is a nonprofit 501(c)3, a charitable donation of space could be tax deductible expense.

“During a disaster, everyone wants to help,” he adds. “Operation BBQ Relief provides that opportunity to positively affect those most vulnerable during a time of need. A successful deployment starts with planning long before a disaster. This allows GCCA and its associates to communicate what, why and how they are supporting relief efforts.”

Networking is a critical component of building OBR and other such organizations’ donor and support base. “Operation BBQ Relief survives on donors to help provide meals in the most vulnerable areas after a disaster,” Peterson says. “Without having the ability to strategically store items throughout the country until needed, these communities would not be able to rebuild and start to return to normal.”

Letson emphasizes the need for more powerful advocates to speak out for people experiencing hunger. “We still find that food and grocery companies aren’t entirely aware of what can be donated or of laws established to protect companies when they donate food in good faith,” she says. “What could be problematic for a company – aging cold storage product that doesn’t have a customer – could be turned into a win/win/win for the company, the food bank and the person receiving that food when it gets donated instead of tossed.”

Networking also helps demystify why a neighbor would need food assistance. “We want every neighbor in need of food assistance to feel confident and comfortable stepping forward,” Letson says.

Global Effort

Food banks are important everywhere but even more important in developing countries with a huge gap between economic classes. In Panama, for example, poverty still is a significant issue for many Panamanians although it has been one of the fastest-growing countries in Latin America.

“Some communities in rural areas rarely see the benefits of economic growth, and more than 85% of the indigenous people live under the poverty line,” comments Rafael Rocha, Vice President, Commercial, Emerging Cold LatAm.

As a thirty-party logistics provider, he saw how some of their customers were throwing food away for many reasons. But mostly the reason was these products were not appropriate to be sold or delivered to restaurants.

“One day I heard a priest talking about a group that wanted to bring the food bank to Panama to reduce food waste and hunger,” Rocha recalls. “That same day, I approached the group to see how I could help. My initial idea was to link my customers to them, but I realized that they needed lots of support on the logistics side, so I offered to help.”

Since then, Rocha has become a food bank board member. And he has been supporting the food bank by collecting donations as well as providing logistics and other activities. Today, Galores Group facilities have space dedicated to the food bank where customers can transfer inventory that is close to its expiration date to the food bank. “Furthermore, we also use our trucks for deliveries for some of the food banks’ foundation partners,” he adds.

Rocha shares that he decided to volunteer in this effort “because I am a Christian, and believe we need to share,” he says. “I could not see food being disposed of just because it was the easier way to get rid of poorly managed inventory.”

Since becoming involved, the food bank has been supporting many families under the line of poverty as well as some important...
NGOs in the country. “We have a clear purpose of reducing food waste across Latin America,” says Rocha. “That’s what motivates me to expand the partnership that we have started in Panama to our more than 60 facilities across 11 countries in the region.”

Important efforts are also underway in Africa. Lizelle van der Berg, Director, GCCA South Africa, reports businesses in the cold storage and distribution industry are partnering with food banks in Africa.

In Kenya, for example, BigCold supported Food Banking Kenya (FBK) during its initial stages in sourcing for a warehouse and assisted with technical support. John Gathungu, FBK Executive Director and Co-founder, explains that BigCold also introduced FBK to suppliers of different warehouse equipment and to potential partners.

FBK operates a warehouse facility to store donated or rescued food for distribution. It actively solicits food and other crucial resources from local food growers, retailers, wholesalers and processors. In addition, it collects food donations from restaurants for immediate distribution to highly exposed groups.

“Big Cold saved us from the high cost of acquisition of equipment and increased the number of our potential partners, which has ultimately enhanced our efficiency,” says Gathungu. BigCold also assisted FBK with temporary temperature-controlled storage, free consultancy on warehousing specifications, negotiations on pricing with equipment suppliers, and training of staff on warehousing and stock control.

In Ghana, the cold chain logistics company FreezeLink helped Food for All Africa with advice and technical expertise. This occurred as a result of the organization’s founder and executive director, Elijah Amoo Addo, contacting FreezeLink about scaling up during the pandemic to meet the rising demand for food and basic support.

“The company’s advice and technical know-how were very supportive in enabling us to use the limited resources we had to put in place the right measures to meet our scale-up plans,” says Addo.

FreezeLink connected Food for All Africa to the right resources for the supply of refrigeration and storage containers for its warehousing model. This ensured the most cost-efficient and effective sourcing of warehousing items.

“For us at Food for All Africa, the opportunity to be mentored by the professional team at FreezeLink helps us in furthering our mission of creating efficient and sustainable means of nutrition for needy Ghanaians through food banking,” says Addo. “It is this kind of partnership that we are most grateful to foster.”

FoodForward SA, a food distribution non-profit organization in South Africa, helps recover quality surplus food from retailers, manufacturers and farmers. It then redistributes the food to more than 1,000 registered and beneficiary organizations. The company has a fleet of refrigerated trucks and cold storage facilities at its five warehouses. This allows it to maintain the cold chain during the recovery, storage and distribution of perishable surplus food. These food recovery efforts reach over half a million vulnerable people across all nine provinces of South Africa every day.

Andy du Plessis, Managing Director of FoodForward, helped introduce digital technology to connect beneficiary organizations to retail stores and food outlets for the regular collection of surplus food. FoodForward also launched the Second Harvest initiative, a specific outreach program to commercial farmers and growers across South Africa, for the recovery of surplus fruit and vegetables.

It goes without saying that food insecurity and mass feeding is a global issue. While the problem cannot be solved tomorrow, such food recovery efforts are improving peoples’ lives today. “Concurrently, there is so much need for expertise,” points out Brondy. ☉

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There is no single path to a career in the cold storage industry. The stories of how four ambitious young professionals came to the industry — and what makes them stay — offer encouragement to leaders who remain challenged by the ongoing labor shortage. They also share their perspectives on leadership and the cold storage industry’s unique challenges and opportunities to attract and retain talented pros in a modern labor market.

HOT CAREERS IN COLD STORAGE

Four rising stars share their views on how to attract and retain their peers.

By Gina Veazey
Coming to Cold Storage

It is fair to say that the cold storage industry found Cliff Alt. Today, Alt is the Operations Manager for InterChange Group. Before that, he was a rising star in the poultry industry, having worked for two major producers. By age 25, he had been tapped to manage a poultry plant employing about 500 workers.

At the time, Alt says the move to InterChange Group was a hard decision to make. Ultimately, it was the culture that clinched it for him. After meeting with the owners and senior leadership team, Alt says “I just felt really good about the culture more than anything. So, it was worth the gamble to me.”

A second cold storage standout, Judina Arends, heard about the cold storage industry through a friend. She had an interview with Bradner Cold Storage, where she is now Operations Manager.

Arends started as a customer service representative in 2017, a role she says she “was a natural at.” She picked up the details quickly and developed strong, lasting relationships with customers. “I loved problem solving and finding solutions for both the warehouse team and our customers,” she recalls.

Brian Magnus already knew a lot about cold storage because his father worked in the industry for 40-plus years. But Magnus didn’t set out to follow in his father’s footsteps.

With a college degree in hand but no clear career path to follow, Magnus accepted a position in logistics. Little did he know that decision would ultimately help him get connected to United States Cold Storage, where he is now General Manager, Midwest Logistics.

“I never imagined ending up in the same industry as my father, however I lean on him for advice each and every day given the abundance of knowledge he has,” says Magnus.

Kulsoom Khan says she was looking for something “more challenging and more suitable for my career ambitions,” when she joined Congebec Inc. in 2020 as its Energy Efficiency Manager.

With little experience in the cold chain industry, Khan says her background in refrigeration made the transition easier. “I did not have much experience in the cold chain industry but was familiar with refrigeration, which helped with my transition in the new role,” she says.

Staying In The Industry

While it was the culture that initially got Alt to say yes to InterChange Group, it is the job that keeps him coming back.

“It’s what I do here, it’s the development piece,” he says. “That’s a whole different challenge. Seeing something you’re putting your mark on as it grows has just been so much fun.”

As Operations Manager, Alt heads cold storage, leads expansion projects and is part of the strategic leadership team. “It’s everything cold,” he jokes.

For Arends, the scope of opportunity is a motivating force.

“I’m a curious person by nature, and I absorb information from the people around me and learn from them,” she says. “I always went above and beyond, and the dedication that I gave to my work was recognized by leadership.”

Within her first year with Bradner, Arends was at the top of the list to attend Cold Chain Institute (formerly WFLO Institute). She graduated from the program in 2020.

“I was never denied an opportunity,” she recalls. In fact, Arends was promoted to the Manager of Operations post when her mentor was promoted from that role to Director of Operations. “I don’t know what my next role will be at Bradner, but I do know that we will continue to grow, and my future is bright!”

For Magnus and Khan, the industry’s overall impact and the opportunity they have to be part of it are motivators. “The cold storage industry is vital to our economy,” Magnus says. “Being part of an operation that delivers food to families across the world keeps me motivated.”

“I think what motivates me to stay is knowing that the work I do is very important not only for our industry but for the planet as a whole,” says Khan. “In addition, I see the importance of our business in the global food supply chain and know that my role supports in maintaining and optimizing this supply chain.”

Team Spirit

For as long as there have been teams, leaders have been asking and answering how to keep a team focused and morale high. According to Alt, that might be for a good reason. “Everybody’s different so there’s not one answer. You’ve got to learn what drives each person to keep them motivated,” he says.

Magnus agrees. “Knowing your employees is important when managing a team, the relationships you build allow for goals to become attainable,” he says. “Seeing individuals grow their careers motivates me every day to ensure I am providing the necessary tools for them to reach their full potential.”

Similarly, Khan says she focuses on “having high engagement with my team members and making sure they have the opportunity to see the results that I am seeing for the organization.”

At Bradner Cold Storage, Arends says keeping morale high starts with hiring the right people. “We have found that it’s important to hire based on personality and attitude rather than on the specific skillset the individual has,” she says. “If someone has the right attitude, we are willing to train skills. People enjoy coming to work when the people they work with are positive, hardworking and everyone is striving for the same end goal.”
“I give a lot of ownership to the supervisors that report under me,” Arends says. “I coach and train them to make informed decisions and execute on those decisions within their own team. Having highly successful operational teams in each of the warehouses ensures that we are meeting organizational goals.”

Balancing Work and Life

Work-life balance takes on a different meaning in the cold storage industry. Unlike in industries dominated by desk jobs, many cold storage employees do not have an opportunity for hybrid work. Instead, Alt says, “to us it’s more about learning to cover for each other as a team.” Something he says comes back to culture.

The company’s 420,000 square-foot facility operates on two schedules. On one side, the 24/7 schedule matches a customer. It has four shifts on 12-hour schedules. Another area of the facility operates Monday through Friday on eight-hour shifts.

“A 12-hour shift is hard. Those supervisors on 12-hour shifts work Monday, Tuesday, off Wednesday, Thursday, work Friday, Saturday, Sunday and then it’s the opposite the following week.”

In that environment, Alt says supporting employees in maintaining a work-life balance – and maintaining his own balance – is all about fostering a flexible culture. For example, the standardized schedules make it easier for supervisors, operators and front-line employees to cover for one another when somebody needs to take a day off when they were scheduled to work.

“Little things like that can effect work-life balance,” Alt says. To make it work in an operation the size of InterChange Group, Alt says cross-training is key. It gives management the most flexibility to schedule employees in other departments and to approve flexible schedules.

Magnus echoes Alt’s sentiment, commenting on the importance of teamwork. “Building a family first culture is important to me, family must always come before building success. Delegating responsibilities and working as a team is the best way to execute a manageable work-life balance,” he says.

Khan’s unique role in energy efficiency does allow her to work remotely, she says, but that arrangement can come with its own unique challenges. To ensure work doesn’t creep into evening hours, Khan maintains a daily schedule and to-do list. “I also try to stay active by going to gym and hiking on trails around my neighborhood to keep myself going,” she says, and promotes the same habits with her team. “I am a huge believer in ‘work hard, play hard.’”

Arends says it is important to understand that “there are different seasons to life and work. There will be weeks where my focus is dedicated to my work to get through the projects we are working on. There will be a slower season, and I have given myself permission that it’s okay to reduce hours during those slower periods and incorporate more rest and time away from work into my schedule.”

Recruiting for Cold Storage

Views of cold storage career opportunities are probably both undesirable and uninformed, acknowledges Alt. “You’ve got to ask yourself, ‘How does the outside world look at our industry?’”

Magnus agrees with Alt. “The supply chain industry has a perception of being ‘old school’ and ‘blue collar’ and is usually marketed by word of mouth,” he says.

From data analytics to human resources, accounting to automation, cold storage careers offer opportunities for a range of disciplines. And, of course, the industry needs marketing expertise to overcome misconceptions.

Magnus says the cold chain industry could benefit from changing how and where it communicates. “Social media! The easiest way to connect with young, inspired individuals is through the variety of platforms in social media. Utilizing current marketing strategies and leaning towards social media will help attract and sell the modern supply chain experience.”

BRIAN MAGNUS, United States Cold Storage

“Utilizing current marketing strategies and leaning towards social media will help attract and sell the modern supply chain experience.”

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Arctic Cold, a long-time client of Fisher Construction Group, called upon its design-build collaborator to create a cold storage facility that could meet the needs of fruit processors. The facility would also provide storage for its tenant, citrus grower Ventura Pacific in Oxnard, California, United States.

The $90 million project required a 575,000-square-foot building on a 32-acre site. Criteria included the capability to process up to 50,000 crates of lemons and package fruit, and then store various products in either the variable temperature coolers or freezer for distribution.

“Fisher Construction Group takes prides in the relationships it builds with clients and the service it provides that sets us apart from other general contractors,” says Juan Ozuna, Project Manager for the build. “We worked with the client from the conceptual design and due diligence on site selection to help vet a location that can be developed to fit their needs.”

There are many challenges to finding a large, undeveloped site to develop in California. Fisher Construction Group’s strategy was to work closely with the client to understand operation requirements, budget constraints and building flexibility requirements.

“We then analyzed potential sites for feasibility,” Ozuna says. “This included looking at utility availability, meeting with the local planning department to understand its requirements from an aesthetic perspective, current zoning and requirements from an environmental regulation standpoint.”

Before construction, Arctic Cold tenant Ventura Pacific was operating an outdated processing facility and storing product in several locations across Ventura County. It needed a more efficient processing space and onsite cold storage that could house 100% of its product. By doing so, it could eliminate truck trips and complex inventory management and deliver more local citrus to market.

The site selection started in early July 2019, with what was thought to be a perfect location. However, after several months of due diligence, design and planning review, the seller pulled the offer and suggested a different site instead. Design restarted on the new site in 2019. Approximately a year later, after working through planning review,
Turning Lemons Into Lemon-Aid

The cold storage was built as a partnership between Arctic Cold and Ventura Pacific, which was operating out of an old building with multiple storage facilities throughout Oxnard.

“This building allowed for its operation to be streamlined to one building and have quick access to the highway for trucking efficiencies,” Ozuna says. “The building allowed for the receiving, processing, storage and shipping of lemons to occur out of one single building location. This type of collaborative approach between the cold storage provider and the processor provides many efficiencies in the business model of these operations and for the environment.”

The job was completed in January 2022, but it had its share of issues.

“This was a challenging job with too many obstacles to name,” Ozuna says.

For one, the schedule was challenging because the tenant needed space to start installing its equipment by July 2021. Liquidated damages incurred if a temporary certificate of occupancy of the processor space was not provided by January 1, 2022.

Another challenge was the project site was situated in a business park, so to ensure roads and utilities were available, Fisher took on the business park construction and built infrastructure in parallel with the Arctic Cold construction. (Photo courtesy of Fisher Construction Group.)

The site was in an undeveloped business park, so to ensure roads and utilities were available, Fisher took on the business park construction and built infrastructure in parallel with the Arctic Cold construction. (Photo courtesy of Fisher Construction Group.)

Fisher was able to navigate and overcome all obstacles through collaboration, hard work, utilizing all resources and thinking outside the box.

“The project’s success and ability to operate relied on the business park infrastructure project being completed on time,” Ozuna says. “Additionally, the site and business park had old abandoned oil wells. The entire building placement, site operational flow and site arrangement were entirely dictated by the oil well location and required building setbacks.”

In the end, the project required 17 permits and six deferred submittals. Most of these needed to be issued while city staff were working from home, or the building department was closed to the public, due to COVID protocols.

Fisher had a routine weekly call with representatives from the city to work through all the permits and comments. This allowed the company to push the limits of construction at times without the permit being formally issued. Ozuna notes Fisher was “an open book” with the city and built trust as a dependable contractor.

The Fisher management team relocated from Washington State to live in California and manage the project. Nine members of the company relocated for a year or more.

“We are like a family on deployment when we relocate to these projects,” Ozuna says. “We look out for each other both on and off the jobsite. We all understand the end goal and are always looking to help each other out when the need arises.”

Fisher was able to navigate and overcome all obstacles through collaboration, hard work, utilizing all resources and thinking outside the box.

“We are always looking at challenges from different angles and creative approaches,” Ozuna says. “There is an enormous amount of knowledge and experience on a project from the general contractor, subcontractors, designers, consultants and suppliers. We go in with the understanding that if we are to succeed, everyone must succeed. We have this mentality throughout the project with everyone. We treat the project’s management team like a partnership and not an adversarial relationship.”

Innovation of Control Systems

Fisher enabled myriad savvy innovations in control systems for the Arctic Cold facility.

Unlike older refrigeration systems, the Logix controls that were integrated into the refrigeration system permit the user increased control of the system. Each refrigerated area in the facility can be monitored. This ensured all room temperature requirements were met, and power demand stayed below the maximum threshold.

The controls include a state-of-the-art plant electrical use monitoring program that shows the operator the utility rate schedule (on-peak and off-peak), instantaneous power, demand power, daily kilowatt-hours, and log use of interval peak power.

“This is an essential part of the system since power demand is high throughout the Southern California region,” Ozuna says. “Being able to ensure that Arctic’s system is staying under the maximum power usage threshold set by the utility provider is critical to prevent damage to the power grid.”

To add to the plant’s electrical use monitoring capabilities, the controls system also includes a dynamic electrical demand limiting and load shedding program. It allows adjustment of the system’s electrical demand limit and demand shed set points.
“This lets the operator set specific power limits that will determine when equipment starts to be automatically shut down to prevent plant power use from exceeding the desired levels while reducing operational costs,” Ozuna says. “Additionally, the equipment that will shut off during the automatic load shedding is user defined so the operator can determine which equipment will be shut down automatically.”

A shunt trip system was also included in the refrigeration system. It is unlikely this feature will be used because of the system load shedding by the dynamic electrical demand limiting program. The shunt trip acts as a mechanical fail-safe to shut down the refrigeration system in the event the maximum power usage set by the power provider is exceeded.

Sustainable Features
The facility was constructed following the U.S. Green Building Council guidelines for LEED certification level Silver.

Plus, more than 75% of all waste accrued during building construction was recycled. This accounted for a total of 315.60 tons of material that will be reusable rather than disposed of in a landfill.

Fisher utilized Solar Strap, a patented technology ideal for use on cold storage and freezer facilities since penetration through the existing roof was not required. This attachment method uses the existing roof membrane by heat-welding an 11 ½-inch diameter piece of membrane to the existing roof surface. Once the circular membrane is in place, a 5 inch by 8 inch tie-down will sandwich the metal strap to the roof.

Low water use Evapco Eco-Air Series adiabatic condensers were also installed for the refrigeration system. These only use water when ambient conditions and cooling load require it, reducing overall water usage throughout the year. This is especially important as the facility is located in Southern California, where water is a precious commodity.

To add to the plant electrical use monitoring capabilities, the controls system also includes a dynamic electrical demand limiting and load shedding program. (Photo courtesy of Fisher Construction Group.)
The building is located right off the 101 Highway, which reduces the amount of truck traffic in the surrounding urban areas and significantly reduces trucking needs.

“As a result, the nation’s cold storage supply chain being served by Ventura County’s citrus and produce supply is more efficient and capable of meeting consumer demands,” Ozuna says. “I am amazed and proud of our team for getting this project completed on time and on budget. Our client and their tenant were operational at the time required.”

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.

EMAIL: freelancekeith@gmail.com
The Global Cold Chain Alliance will host its 2nd African Cold Chain Conference, 2-4 August 2023, in Cape Town, South Africa.

The GCCA African Cold Chain Conference is Africa’s one and only event bringing together cold store operators, controlled-environment builders, equipment suppliers and service providers to discuss opportunities and innovations of this essential sector. The conference will provide leadership experience, knowledge, and exclusive networking with decision makers from across Africa and beyond, in a relaxed yet professional atmosphere.

Throughout the conference, attendees will hear from thought leaders and industry experts and get a better understanding of industry trends, perspectives and best practices. Delivered in various formats – keynote presentations and educational sessions – the program will offer interactive participation.

Making connections with fellow delegates is an important aspect of any conference experience. And that is why this event has ample opportunity for attendees to connect and re-connect with professionals who share their goals and challenges.

Plenary Sessions and Learning Opportunities
The conference’s keynote speakers are leaders in their industries, whether that is logistics, automation, economics or talent management. Their stories will inspire attendees to think outside the box and widen their perspectives. With the support of the GCCA African Advisory Council and the GCCA Africa Risk Management Committee, GCCA is building a
Sponsoring
The GCCA Africa Cold Chain Conference is a supplier’s best venue for reaching temperature-controlled warehousing and logistics executives in the African market. Increase your company’s brand visibility and promote your brand at the event through the sponsorship program. Each opportunity has been customized to spotlight your company throughout the entire event.

Location
The conference will be held at The Westin Hotel – by Marriott in Cape Town, South Africa. For more information on the conference visit www.gcca.org/events.

LIZELLE VAN DER BERG is Director – GCCA South Africa.
EMAIL: Lvanderberg@gcca.org

Program
The conference will provide attendees with a high-level overview of current trends and challenges experienced by the industry in Africa.

International Sessions also include consumer market trends on frozen food; an update on the Africa Free Trade Agreement; reducing water and energy consumption; automation; latest technology in the cold chain; creating a food safety culture; warehouse management systems; cyber security and more.

Networking
The conference offers participants numerous networking opportunities to make new connections and strengthen existing relationships. Networking functions include the Cold Chain Dinner planned for Wednesday, August 2, at the famous Hotel Sky’s 27th floor, Sky on Long. It offers breathtaking, unparalleled 270-degree views of the Mother City.

On August 3, attendees will have multiple opportunities to network with peers during breaks followed by the Closing Reception. There, conference attendees can enjoy a selection of canapés, fine wines, beers, ciders and cold drinks in the Expo.

The GCCA Africa Cold Chain Cup will take place on Friday, August 4, at the Bellville Golf Course, where some will play and some will try.
Industrial real estate proved to be one of the most resilient major commercial property types during the health crisis and is positioned for another strong year in 2023. The industrial landscape is changing, as new shipping routes and reshoring efforts begin to take effect. To help investors capitalize on these and other nuances, Marcus & Millichap presents the 2023 Industrial National Investment Forecast.

Key Features Include:
• A detailed outlook for the U.S. industrial sector in 2023
• Supply and demand forecasts for 36 major markets across the country
• Analysis of post-pandemic rent growth trends by industrial market type

Receive your complementary copy with luis.ortega@marcusmillichap.com
COLD CHAIN DEVELOPMENT
NEWS ABOUT GCCF INTERNATIONAL PROJECTS

This column features news about key projects of the Global Cold Chain Foundation (GCCF) 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.

ACTIVE PROJECTS

Bangladesh Trade Facilitation (BTF) Project, 2020 – 2025
Partnered with Venture37 and LixCap
May 31 to June 1, the Global Cold Chain Foundation (GCCF) partnered with the regional American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) to implement training to Bangladesh engineers led by GCCA engineering expert Harshal Surange. During the event, GCCF announced the virtual cold chain trainings led by Amanda Brondy, Harshal Surange, Bob Tippman (QuickFreeze) and Don Durm (PLM Fleet). Training was delivered in English, then transcribed and dubbed into Bangla for the local market. It covered an introduction to the cold chain, cold storage design, energy management and sanitary transportation.

Cambodia Market Systems Program, 2022 – 2023
Partnered with LixCap and Khmer Cold Chain Company (KCCC)
GCCF is advising on the construction and startup of the Khmer Cold Chain Company facility at the LM17 port on the Mekong River in Phnom Penh, Cambodia. In May, Rusty Eason (Bright House Consulting) will travel to the facility to review the equipment installation and advise on appropriate warehouse management systems (WMS).

Dominican Republic TraSa Project, 2021 – 2025
Partnered with International Executive Service Corps (IESC)
Since March, GCCF has completed a series of virtual cold chain best practices training to participants in the Dominican Republic. Training covers warehouse operations essentials, trends and technologies in warehouse management, supply chain basics and analyzing refrigeration systems. It is led by industry professionals in Latin America.

North Africa Cold Chain Assessment & Capacity Building, 2021 – 2023
Partnered with USA Poultry and Egg Export Council (USAPEEC)
Cold chain technical experts Manuel Cabrera-Kabana (Friopuerto) and Roudy Akiki (CT Technologies) and GCCA staff member Madison Jaco presented at the USAPEEC Buyers’ Conference in Casablanca, Morocco, on May 14. The team shared information about emerging trends in cold chain investment and design-build as well as GCCF’s ongoing project in North Africa. In the week after the conference, the trio visited several cold chain operators near Casablanca to provide consultation on cold chain best practices including energy efficiency, warehouse operations and design-build and engineering.

Southeast Asia Emerging Markets Program, 2019 – 2023
In close collaboration with Hasan Yasni (Indonesian Cold Chain Association) and Marc Dizon (Cold Chain Association of the Philippines), GCCF hosted a study tour to a variety of cold storage, refrigerated transportation and cold chain equipment suppliers in Indonesia from May 7 to 13. Twelve participants from Cambodia, Thailand and Vietnam attended the tour. They had the opportunity to network with other cold chain operators in the region, learn from international experts and visit a range of cold chain logistics facilities in Jakarta and Bali, Indonesia. Jaco supported the tour in-country, and the team was joined by GCCF Chairman Greg Laurin (Conestoga) later in the week.

Juan Afanador (Emergent Cold LatAm), Madison Jaco (GCCA) and Isabel Agudelo (Global Foodbanking Network) met with several foodbanks to discuss their cold chain logistics obstacles and identify areas where GCCA can support their efforts.
Ongoing Industry Support to Reduce Food Loss and Waste

In March, Madison Jaco attended the Food Bank Leadership Institute (FBLI) in Mexico City. Hosted by the Global Foodbanking Network, one of GCCA’s partners in reducing food loss and waste and increasing food security, the event brought together food bank leaders from more than 50 countries to network and share expertise with others in the maximizing food industry.

GCCA members Juan Afanador (Emergent Cold LatAm) and Ana Guzman (Grupo Arcosa) joined the discussion to identify areas where the association’s members can support food banks.

Egypt Rural Agribusiness Strengthening (ERAS) Project, 2019 – 2024
Partnered with Abt Associates Inc.
Dr. Elhadi Yahia will return to Egypt in May and June 2023 to provide training and technical assistance on best practices for post-harvest handling of mangoes. He will return later in the year for a similar assignment on pomegranates.

Georgia Agriculture Project, 2018 – 2023
Partnered with Cultivating New Frontiers in Agriculture
GCCF is working with three individuals to support different Georgian stakeholders. In May, remote logistics training will be organized for small and medium-sized businesses looking to grow their exports of fresh fruits and vegetables. In addition, training will be organized remotely to deliver food safety training to retailers. Finally, a blueberry logistics expert will travel to Tbilisi in June 2023 to advise blueberry producers and exporters on best practices.

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- Do you plan to build a new facility or renovate an existing one?
- Do you plan on making any capital investments in refrigeration, material handling, doors or other equipment related to a construction project?
- Do you plan on fixing any floor, walls, roofs, update your docks or make improvements to anything else inside the building?

If you answered yes, you won’t want to miss the Controlled-Environment Building conference & Expo occurring November 11-14, 2023, Omni Rancho Las Palmas Resort & Spa, Palm Springs, CA.

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- Chief Engineers
- Facility Engineers & Maintenance
- Heads of construction or individual that oversees/ liaise with general contractors, refrigeration contractors
- Anyone involved in the procurement or planning for capital investments equipment related to construction projects to the annual conference

BENEFITS OF ATTENDING

IDEA EXCHANGE WITH EXPERTS

CEBA Construction Café is to create an exchange of ideas and stimulate facilitated discussion on critical industry issues. Participants choose from 10 different topics, join the table at which the issue is being discussed, and spend 20 minutes sharing ideas. Participants then switch tables to discuss another topic.

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- Transcritical CO₂ industrial chillers from 50–500 tons at -40°F to 40°F outlet fluid
- Transcritical CO₂ condensing units from 10–85 tons at -40°F to 40°F SST
- Transcritical CO₂ industrial racks from 50–400 tons at 40°F to -50°F SST or 50°F to -40°F fluid temperature

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The natural solution.
In April 2022, the GCCA and the United Kingdom’s Cold Chain Federation announced a partnership agreement signalling a renewed commitment to building knowledge, networking opportunities and insights across borders.

Here, Cold Chain Federation Chief Executive Shane Brennan continues his series for COLD FACTS exploring hot topics for our industry in the United Kingdom and beyond.

Drumroll Please for the U.K. Cold Chain Sustainability Award Winners

Businesses across Europe are facing the increasing demands of customers and regulators to reduce the climate impact of cold chain operations.

The Cold Chain Federation is committed to leading the debate, highlighting the positive role of temperature-controlled warehousing and transport, and helping our members to embrace the opportunities that result from delivering more sustainable solutions.

In March 2023, the Cold Chain Federation hosted our first Climate Summit. This was the first opportunity for our members to attend a sustainability conference wholly and solely dedicated to cold storage and temperature-controlled distribution. More than 200 people were at the Summit, a clear signal of the prominence businesses give this topic.

The Summit’s presentations, panels, Q&A sessions and discussions provided plenty of food for thought. There were also some clear actions both for individual businesses and for the Cold Chain Federation.

Highlights included a talk by Claire Walters, Regional Vice President, United Kingdom, at Lineage Logistics. She outlined how Lineage has become the 13th biggest producer of solar energy globally while achieving a 33% energy reduction since 2015. As well as major projects such as installing solar on 12 sites in the United Kingdom, Walters explained why Lineage is also acting on “a million little things,” a phrase that really struck a chord in the room.
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Costco Poultry Processing, Fremont, Nebraska

My congratulations to all those shortlisted as well as the first-ever roll call of U.K. Cold Chain Sustainability Awards winners:

- Energy Efficiency: Small Cold Store of the Year 2023 (<25,000m³): F W Mansfield & Son: Nickle Farm
- Energy Efficiency: Medium Cold Store of the Year 2023 (25,000m³ – 100,000m³): Interfrigo: Antrim, Northern Ireland
- Energy Efficiency: Large Cold Store of the Year 2023 (>100,000m³): Fowler Welch: Spalding
- Energy Efficiency: Distribution Center of the Year 2023: Sainsbury’s: Waltham Point

- Innovation of the Year - Cold Storage: Carrier: PowerCO2OLS
- Sustainable Cold Storage Operator of 2023: DFDS
- Sustainable Cold Chain Transport Operator of 2023: Martin Brower
- Cold Chain Champion of 2023: Joanne Moore on behalf of the P&M Group

Another highlight of the Summit was the macro conversation, led by Professor Alan McKinnon of Germany’s Kuehne Logistics University, about achieving net zero in logistics. He examined the approaches to decarbonizing freight from reducing movements and shifting to lower carbon transport modes, optimizing use of assets, energy efficiency improvements and switching to alternative fuels. Professor McKinnon’s demonstration of why all these initiatives will be required gave delegates a clear indication of the scale of change to expect in our operations over the coming decade and beyond.

The instinct in discussing climate change is to consider how regulation, customer requirements and higher external temperatures will affect how the industry operates and how U.K. supply chains will change. Dr Leyla Sayin of The Centre for Sustainable Cooling alerted us to how, without urgent global public-private action, the impacts of climate change on the cold chain in low-income countries will affect food resilience, health and the cold chain in those countries and across the developed world as well.

Following the close of the Climate Summit, the awards ceremony was held for the inaugural Cold Chain Sustainability Awards. It was a privilege to recognize and celebrate businesses and individuals leading the way toward more sustainable U.K. cold storage and temperature-controlled transport.

Since we launched these awards at the start of this year, operators from across the United Kingdom have been submitting entries demonstrating their action on energy efficiency, their technological innovation, and their work to champion the sustainability agenda. The breadth, dedication and excellence demonstrated in the award entries were staggering. The judging was uplifting and enjoyable but for some categories, selecting the winners among such impressive competition was extremely difficult.
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The Global Cold Chain Foundation (GCCF) Scientific Advisory Council is an eminent group of food scientists, logistics, and packaging experts from around the world. The council provides cutting-edge research and advice to members of the Global Cold Chain Alliance and its Core Partners.

**Dr. Michael Jahncke**
Virginia Tech University, Fish Products Expert
*SAC CHAIRMAN*

**Dr. Jeffrey Brecht**
University of Florida, Cool-Climate Fruit & Produce Expert

**Dr. Patrick Brecht**
PEB Commodities, Refrigerated Transportation Expert

**Dr. Brian Fugate**
University of Arkansas, Supply Chain Management Expert

**Dr. Cody Gifford**
University of Wyoming, Meat Products Expert

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

**Dr. Paul Dawson**
Clemson University, Poultry Products Expert

**Dr. Donald Fenton**
Kansas State University, Refrigeration Engineering Expert

**Dr. Faris Karim**
Kansas State University, Ammonia Contamination & Food Toxicology Expert
Dr. Kees Jan Roodbergen  
University of Groningen,  
Logistics & Operations  
Management Expert

Dr. Victoria Salin  
Texas A&M University, Agriculture Economics Expert

Dr. Barbara Rasco, BSE, Ph.D., JD  
University of Wyoming, Food Safety & Food Safety Regulations Expert

Dr. S. Paul Singh  
Michigan State University, Packaging & Labeling Expert

Dr. Charles White  
Mississippi State University, Dairy Products Expert

Dr. Donald Schaffner  
Rutgers, The State University of New Jersey, Microbiology Expert

Dr. Subramaniam Sathivel  
Louisiana State University, Frozen Food Quality Expert

Dr. Elhadi Yahia  
Universidad Autónoma de Querétaro, Mexico, Postharvest Technology, Tropical Fruit & Produce

SAC Emeritus

R. L. (Bob) Henrickson, Oklahoma State University, Meat Products Expert
Joseph Sebranek, Iowa State University, Meat Products Expert
Daryl B. Lund, University of Wisconsin, Food Science Expert
Joseph Slavin, Jos. Slavin & Associates, Fish Products Expert
W. F. (Will) Stoecker, University of Illinois, Refrigeration Engineering Expert

Have a burning cold chain question?  
Submit an inquiry to the Scientific Advisory Council  
at www.gcca.org/inquiry
Q: We are in the process of environmental permitting for a country in West Africa. As part of the operational procedure to obtain the permit, the Environmental Protection Agency conducted a site visit to our plot. As we intend to use an ammonia refrigeration plant, they expressed concerns about that. Their feedback was that the adopted approach in the country is to discourage using ammonia because they are worried about the potential fire and poison hazards. Can a member of the Scientific Advisory Council provide information to alleviate their concern about using ammonia?

A: Ammonia has excellent thermodynamic properties including low boiling point, high heat of vaporization and low production cost. For that, ammonia is considered a superbly efficient refrigerant. Compared to other refrigerants such as hydrofluorocarbons and chlorofluorocarbons, ammonia’s damage to the ozone layer or contributions to global warming are minimal. Ammonia is being weighed as a natural and environmentally friendly refrigerant. However, its toxicity is still a very important subject. Ammonia toxicity impact can be minimized if these steps are followed:
1. Design a refrigeration system to prevent ammonia leaks.
2. Establish a well-documented crisis management plan.
3. Establish a strong employee safety training program.
4. Train employees to deal with ammonia leaks.
5. Provide suitable personal protective equipment (PPE) to the employee.
6. Establish a preventive maintenance plan for the refrigeration system.

Answer provided by Ammonia Contamination and Food Toxicology Expert Dr. Faris Karim, Kansas State University.

Submit your burning cold chain questions to the Scientific Advisory Council at www.gcca.org/inquiry or at inquiry@gcca.org
Food preservation and food processing are the largest applications of industrial refrigeration that involve temperatures typically lower than comfort air-conditioning. Both refrigeration applications apply the thermodynamic vapor compression cycle, but industrial systems are distinguished by their use of refrigerant storage vessels, multiple temperature levels and natural refrigerants ammonia and carbon dioxide among others.

Ammonia and carbon dioxide, while utilized as refrigerants for many years, still present challenges regarding safety. The International Institute of Ammonia Refrigeration (IIAR) has established ammonia refrigeration design and safety standards and is currently completing the same for carbon dioxide. Over the past 30 years, ASHRAE (American Society of Heating, Refrigeration and Air-Conditioning Engineers), IIAR, GCCA and other agencies have sponsored many research projects improving our understanding of these refrigerants. This contributes to the refinement of codes and standards governing their application in refrigeration.

As the director and instructor of the week-long Industrial Refrigeration Workshop sponsored by IIAR, more than 2,000 attendees, including design engineers, refrigerated warehouse managers, contractors, food processors and others in the industrial refrigeration field, have been trained. The goals of this workshop are for industrial refrigeration systems to be designed better, managed efficiently and operated safely.

Dr. Donald L. Fenton, PE
Kansas State University,
Refrigeration Engineering

COOL SOLUTIONS: ABSTRACT

SCIENTIFIC ANSWERS TO COLD CHAIN CHALLENGES
2023 GCCA, GCCF and CEBA Education, Training & Networking Events

GCCA events bring together thought leaders and subject matter experts to not only discuss but solve issues facing the temperature controlled supply chain. All GCCA, GCCF and CEBA events are open to members and non-members. Become a member to save on event registration fees.

Interested in sponsoring an event? Email James Rogers at jrogers@gcca.org

JUNE

GCCA COLD CHAIN POLICY FORUM
19–21 JUNE 2023
Washington, DC | The Watergate Hotel

The GCCA Global Policy Forum is the premier policy event for businesses engaged in temperature-controlled logistics. Featuring education sessions and keynote presentations focused on rules and regulations that impact the cold chain, the Global Policy Forum is a must attend policy event for multiple regions across the world.

Large Company Audience: Executives with compliance and regulatory responsibility, members of safety and government affairs committees.

Small to Medium Company Audience: Owners, CEOs, executives with compliance and regulatory responsibility, members of safety and government affairs committees.

JULY

WFLO INSTITUTE LATIN AMERICA
17–19 JULY 2023
Mexico City, Mexico | Hilton Mexico City Reforma

This event, designed for employees with clear management potential and executives new to the industry, features extensive classes in warehouse management and transportation management taught by leading experts in the industry.

Large Company Audience: Warehouse managers, operations managers, warehouse supervisors, shift leads, workers with high potential for management, customer service managers, business development managers, transportation managers, executives new to the industry.

Small to Medium Company Audience: Warehouse managers, operations managers, workers with high potential for management.

AUGUST

GCCA AFRICAN COLD CHAIN CONFERENCE
2–4 AUGUST 2023
Cape Town, South Africa | The Westin Cape Town

This event is South Africa’s one and only venue bringing together cold store operators, controlled-environment builders, equipment suppliers and service providers to discuss opportunities and innovations of this essential sector. The conference provides leadership experience, knowledge, and exclusive networking with decision makers from across South Africa and beyond, in a relaxed yet professional atmosphere.

Audience: Executives and managers from temperature-controlled, third-party logistics companies.

SEPTEMBER

132ND GCCA CONVENTION
24–27 SEPTEMBER 2023
Scottsdale, AZ | The Westin Kierland Resort & Spa

This annual gathering for IARW and WFLO features education, networking and business development opportunities for third-party logistics companies and warehouse operators.

Large Company Audience: Owners, CEOs, presidents, executive leadership teams.

Small to Medium Company Audience: Owners, presidents, senior executives.
OCTOBER

**GCCA BRAZILIAN COLD CHAIN CONGRESS**
**19 OCTOBER 2023**
Sao Paulo, Brazil | InterContinental Sao Paulo

This educational event focuses exclusively on the temperature-controlled logistics industry and features opportunities and solutions for business development.

**Audience:** High-level executives in temperature-controlled warehousing or logistics.

NOVEMBER

**43RD CEBA CONFERENCE & EXPO**
**11-14 NOVEMBER 2023**
Palm Springs, CA | Omni Racho Las Palmas

This annual meeting of CEBA members offers education, business development opportunities and networking for company executives managing the building of new cold storage facilities and cold storage builders.

**Large Company Audience:** Chief engineers, regional facility managers, regional facility maintenance leads, construction engineer managers.

**Small to Medium Company Audience:** Owners/CEOs who are building or expanding facilities, chief engineers.

**GCCA LATIN AMERICAN COLD CHAIN CONGRESS**
**6-7 NOVEMBER 2023**
Cancun, Mexico | Hotel Presidente InterContinental

This meeting enables GCCA members and leaders in the temperature controlled industry to interact, learn about industry trends and expand their knowledge. The Congress also serves as a discussion forum for issues of interest to multi-regional cold chain industry leaders.

**Audience:** Senior executives in temperature-controlled warehousing or logistics.

FEBRUARY

**59TH WFLO INSTITUTE EAST**
**4-6 FEBRUARY 2024**
Atlanta, Georgia, United States | Georgia Tech Hotel & Conference Center

This event, designed for employees with clear management potential and executives new to the industry, features more than 40 classes in warehouse management and transportation management taught by leading experts in the industry.

**Large Company Audience:** Warehouse managers, operations managers, warehouse supervisors, shift leads, workers with high potential for management, customer service managers, business development managers, transportation managers, executives new to the industry.

**Small to Medium Company Audience:** Warehouse managers, operations managers, workers with high potential for management.

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**27-29 FEBRUARY 2024**
Tempe, Arizona, United States | Tempe Mission Palms Hotel at Arizona State University

This event, designed for employees with clear management potential and executives new to the industry, features more than 40 classes in warehouse management and transportation management taught by leading experts in the industry.

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The **GLOBAL COLD CHAIN FOUNDATION (GCCF)** announces dates and locations for some of its 2024 Cold Chain Institutes. February 4-6 are the dates for the Cold Chain Institute East held in Atlanta, Georgia, and February 27-29 are the dates for Institute West in Tempe, Arizona. The Institute in Australia will be held May 28-30 in Melbourne, Australia, with the Latin America Institute scheduled for Mexico City, July 15-17. In addition, GCCF is working on dates in August 2024 for the first ever Cold Chain Institute Brazil and October 2024 for the inaugural Cold Chain Institute Europe.

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**U.S. Representative Feenstra (IA), a champion of the 2023 Farm Bill, highlighted the cold chain at a recent Ways and Means Committee field hearing entitled Trade in America: Securing Supply Chains and Protecting the American Worker. Rep. Feenstra will provide a keynote presentation during the GCCA Cold Chain Policy Forum held in Washington, D.C., June 19-21, 2023.**

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**GCCA** staff members recently attended a congressional reception for the Food and Beverage Issue Alliance (FBIA), of which GCCA is a member. FBIA represents critical infrastructure industries and companies feeding the nation. It serves as an informational resource and conduit for our members and the agencies and policymakers that care about our country’s food system.

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**GCCA** is pleased to recognize Trenton Cold Storage and the team at its Wooler facility who have fulfilled the requirements to be awarded Gold Level status in the GCCA Energy Excellence Program. The Energy Excellence Program is a tool you can use to communicate your facility’s progress in meeting sustainability objectives to your customers, allowing you to be a better partner in overall cold chain sustainability. Using qualitative and quantitative assessment tools, operators can track facility performance over time, as well as receive progress reports with recommended next steps and links to useful resources. Top performers will be recognized based on energy culture and magnitude of savings.

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The GCCA AFRICAN COLD CHAIN CONFERENCE is held annually to promote and develop the cold chain in Africa. This year’s event will take place from 2—4 August 2023 in Cape Town, South Africa. **Registration Now Open @ www.gcca.org**

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Two keynotes were recently announced for the GCCA Convention to be held in Scottsdale, Arizona, September 24-27, 2023. The first is J Walker Smith, Executive Chairman of Kantar Futures, a global foresights and futures research consultancy. Walker has been described by Fortune as “one of America’s leading analysts on consumer trends.” He is co-author of four books, a blogger, a former marketing management and marketing news columnist and a former public radio commentator. He will keynote the Convention during Tuesday afternoon’s Opening General Session. Sarah Thomas will close out the Convention on Wednesday afternoon with a Keynote Presentation during the Closing General Session. Thomas is an American football official, currently for the National Football League. Thomas was the first woman to officiate a major college football game and a college bowl game. In 2015, Thomas was the first female official in NFL history to be hired. In 2021, she became the first woman to earn an on-field assignment for an NFL playoff game and in February 2021, she became the first woman to officiate in a Super Bowl. 🏈
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A M KING was recognized nationally by the Associated Builders and Contractors (ABC) for the company’s project delivery of a new 275,000-square-foot avocado ripening and processing facility for Mission Produce, Inc. in Laredo, Texas. A M King took second place in the Industrial ($25 million-$50 million) category, winning ABC’s Pyramid Award for Excellence in Construction.

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ARCADIA COLD STORAGE AND LOGISTICS has entered into an agreement to lease and operate a new cold storage facility that is currently under construction near Phoenix, Arizona, United States. This marks Arcadia’s fourth facility that will open in the third quarter of 2023. The Phoenix Cold Storage Facility will be a 293,000-square-foot fully convertible freezer and cooler distribution center facility with 40,500 pallet positions designed to support a combination of regional distribution, import export activity and high-volume throughput handling services.

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DON DURM, Vice President, Customer Solutions at PLM Fleet and Board Chair of GCCA – Transportation, has been named a 2023 Rock Star of the Supply Chain by Food Logistics. This award recognizes influential individuals whose achievements, hard work and vision have shaped the global cold food supply chain. A 28-year veteran of PLM Fleet, Durm is an internationally recognized industry expert, writer and keynote speaker on cold chain handoff applications, regulatory compliance and supply chain technology.

● ● ●

FASTENER SYSTEMS, INC. has acquired Proven Products, LLC. Fastener Systems is a distributor of specialty and accessory products for the controlled environment, commercial and industrial markets. The company also recently just moved into new 55,000-square-foot office and warehouse space from its original 18,000-square-foot facility.

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J&R SCHUGEL, a national truckload carrier, has selected ORBCOMM Inc., a global provider of Internet of Things solutions, to provide its cold chain telematics solutions to track, monitor and control their refrigerated trailers. ORBCOMM’s telematics solutions provide wireless connectivity through its hardware and a single, unified cloud-based analytics platform for streamlined operations across multiple asset classes.

● ● ●

LINEAGE LOGISTICS announced 11 winners of its first-ever Carrier of the Year awards program to honor key transportation service providers for their high-quality service, operational excellence and integral role in meeting customers’ needs. The 2022 winners were selected based on a list of criteria around performance, using quantitative and qualitative data. Among the 2022 Carrier Award Winners is Felipe Escalante – named Truckload Owner-Operator of the Year.

● ● ●

NDUSTRIAL has been named one of the top 100 startups in energy and climate technology by Start Up Energy Transition. SET100 shows the most promising global solutions chosen by an international jury of experts. This year, the SET100 were selected from more than 400 applications from 63 countries.
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Hillphoenix
Conyers, Georgia, United States

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Willowbrook, Illinois, United States

Peak Construction Corporation
Rosemont, Illinois, United States

Providence Engineering
Lancaster, Pennsylvania, United States

Temptime Corporation a Zebra Technologies Company
Morris Plains, New Jersey, United States

Valley Fire Protection Systems and Plumbing
St. Charles, Illinois, United States

GCCF MEMBERS
Food for All Africa
Tema Kalgan, Ghana

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Medellín, Colombia

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Red Creek Cold Storage, LLC
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Morgan Harbour Construction, LLC
Willowbrook, Illinois, United States

Norbec Architectural Inc.
Boucherville, Quebec, Canada

Peak Construction Corporation
Rosemont, Illinois, United States

Providence Engineering
Lancaster, Pennsylvania, United States

SSO
New York City, New York, United States

Valley Fire Protection Systems and Plumbing
St. Charles, Illinois, United States

Wolverine Fire Protection
Anaheim, California, United States

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