

COLDFACTS

COVER STORY 13 CONNECTING A VITAL INDUSTRY

MARCH-APRIL 202

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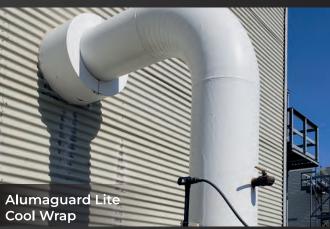


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Ensuring the Continuity and Safety of Essential Cold Storage

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Marketplace Continues to Expand

Exports as well as local consumption drive growth despite infrastructure and technology challenges.

By Alexandra Walsh









TO OUR PARTNERS

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LEADOFF

MESSAGES FROM GCCA LEADERS



TIM LUDWIG
CHAIRMAN
GLOBAL COLD CHAIN ALLIANCE
WAREHOUSE BOARD

ELCOME TO THE SPRING EDITION OF COLD FACTS MAGAZINE!

As your 2025 Chair of the Global Cold Chain Alliance Warehouse Board of Directors, and on behalf of this year's board, it is an honor to contribute. Serving in this role is a privilege, and I am fortunate to work alongside so many dedicated industry leaders – visionaries committed to developing, implementing and championing a future-focused, member-centric strategy for our organization.

My priorities reflect a deep commitment to the future of the entire alliance, particularly GCCA Warehouse. Amid significant industry change and global uncertainty, I am ready to drive greater value and engagement for our members, support the next generation of cold chain professionals, and ensure we remain relevant and responsive to the challenges ahead.

Change Is the New Normal

Predictability is a luxury few industries enjoy, and the cold chain is no exception. Over the past decade, our industry has not only adapted to constant change but thrived in the face of it. The COVID-19 pandemic put our once "invisible" industry in the global spotlight, revealing the complexities of the food supply chain to the public. That was just one of many disruptions that have tested our adaptability.

GCCA has undergone its own transformation – new leadership, significant growth and a realignment of priorities. Now, as we engage in strategic planning, we must ask ourselves some key questions:

- How does GCCA best support the global cold chain ecosystem?
- How do we provide the most value?
- How do we successfully adapt to today's ever-changing world?

Are We Ready for Change?

What was once an industry dominated by regional and family-owned businesses is now evolving, with larger companies playing a growing role. Both models are essential to ensuring the safe and efficient delivery of food to consumers and serving our diverse customer base.

Trade disruptions and policy shifts, particularly around tariffs, continue to raise critical questions for our industry. As global trade agreements are renegotiated and protectionist policies emerge, we must be prepared for the potential impact on supply chains, cost structures and market access. The cold chain does not operate in isolation, and these changes affect us all – from North America to Europe and beyond.

The shifting tariff landscape has broad implications for our industry in the United States, Canada and Mexico, where crossborder food trade is a daily reality. The USMCA (United States-Mexico-Canada Agreement) plays a crucial role in maintaining the flow of goods across North America, yet new trade tensions could disrupt longestablished supply chains. Meanwhile, our European colleagues continue to navigate changing trade policies within the EU and with global partners, which adds another layer of complexity to the cold chain ecosystem.

These uncertainties make it even more vital that we stay ahead of regulatory changes, advocate for our industry and develop strategies that allow us to adapt quickly. While challenges exist, our ability to anticipate and respond to these shifts will define our success. We must work together as an industry to remain resilient, innovative and well-positioned to support our customers through whatever lies ahead.

(Continued on page 8)

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 warehousing, transportation and logistics industry.



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PANELS THAT CONNECT

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MESSAGES FROM GCCA LEADERS

Driving Member Value

GCCA has been an invaluable resource for me, both personally and professionally. It is a powerful network that fosters collaboration, provides market intelligence and offers practical business support. As a champion of GCCA, I want us to work together to amplify the strength of this industry and reinforce the core of our association.

While continuing to build relationships with executive and C-suite leaders, I am also committed to engaging with the next generation of professionals. As an association, we must balance a broad, global view of the cold chain industry with the need to deliver tangible, meaningful value to our stakeholders at all levels of our organizations.

I believe in the saying, "Two ears, one mouth." Listening to our members, understanding their business priorities and tailoring our benefits accordingly is crucial. Getting "back to basics" does not mean moving backward – it means strengthening our foundation while exploring new ways to provide value.

Sharing Our Stories and Developing the Future Workforce

My career path in the cold chain is, in many ways, a familiar one. I started as a student working afternoon shifts picking orders, never imagining that one day I would own a cold storage business.

Today, I take pride in working with our company's global customers while also staying connected to our most valuable asset – our employees. I even keep my forklift certification up to date, helping me stay connected to the core of teams and the magnificent work they do every day.

Stories like mine are common among GCCA members, and they highlight why careers in the cold chain offer lifelong opportunities. As an association, we play a key role in developing the workforce of the future. As you will read in this issue, the GCCF Cold Chain Institute is celebrating 60 years of education and training in 2025 – a milestone that speaks to our ongoing commitment to professional development.

Our Global Voice

Warehouse owners and operators are ready to take a greater role in shaping global policy. There is a significant opportunity to drive innovation while reducing bureaucratic barriers to safe, secure supply chains. Tariffs, trade regulations and shifting geopolitical landscapes all play a role in how our industry operates, and we must be proactive in ensuring policies support – not hinder – the essential services we provide.

As an industry that serves an international market, we must work collaboratively to ensure fair and efficient trade policies. The cold chain is a global network, and our ability to move food safely and efficiently across borders is critical – not just for businesses, but for global food security. We must advocate for policies that reduce unnecessary friction in cross-border trade while maintaining the highest safety and quality standards.

Even with these challenges, we are ready to move forward. GCCA is prepared to be the powerhouse association for warehouse operators. We are ready to collaborate with cold chain players worldwide, amplifying our collective voice and impact.

Ready to Move Forward

Great people make great things happen. I look forward to connecting with many of you at upcoming GCCA events – whether at a Cold Chain Connection in your region, a policy forum, a CEBA or Global Cold Chain Foundation program or our 2025 GCCA Convention.



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A regulatory freeze, deregulation, withdrawing from environmental agreements and tariffs top the agenda.

By Lowell Randel

resident Donald Trump was inaugurated for his second term on January 20 and began signing a series of Executive Orders shortly after the ceremony. These actions are setting the tone for the Trump Administration, and the president's vision for a transformed federal government.

Following are summaries of selected actions that could impact GCCA members.

Regulatory Freeze and Deregulation

As is typical of incoming administrations, Trump has placed a temporary freeze on rule-making activity. He has directed agencies not to propose or issue any rule, in any manner, until a department or agency head appointed or designated by the president reviews and approves the rule.

Any rules sent to the Federal Register under the Biden Administration but not yet published were immediately withdrawn for review. Any published rules that had not yet taken effect were postponed to review any questions of fact, law and policy that the rules may raise.

In addition to a temporary freeze, Trump issued an order stating it is the policy of his administration to significantly reduce the private expenditures required to comply with federal regulations, in order to secure America's economic prosperity and national security and the highest possible quality of life for each citizen.

To that end, it is now the policy of the Trump Administration that whenever an agency publicly proposes a new regulation, it shall identify at least 10 existing regulations to be repealed. This new practice is intended to ensure the cost of planned regulations is responsibly managed and controlled through a rigorous regulatory budgeting process.

Further, heads of all agencies have been directed to ensure that the total incremental

cost of all new regulations being finalized this year, including repealed regulations, shall be significantly less than zero as determined by the U.S. Office of Management and Budget. The new policy may be used by U.S. agencies such as the Environmental Protection Agency (EPA) to roll back regulations instituted during the Biden Administration such as the Safer Communities by Chemical Accident Prevention that amended the Risk Management Program. GCCA is actively working to seize deregulatory opportunities to help reduce the burden on cold chain companies.

Department of Government Efficiency

Trump has created a new Department of Government Efficiency (DOGE), led by Elon Musk, to identify ways to make the government more efficient and reduce federal expenditures. DOGE is placing personnel in all federal departments and spending reviews are currently underway.

Trump briefly placed a blanket freeze on all federal programs, which was challenged in court and subsequently withdrawn. However, some programs remain frozen, and DOGE has identified a significant number of programs for cancellation.



Hiring Freeze, Return to Work and Federal Workforce Reduction

The Trump Administration is taking aggressive steps to transform the federal workforce beginning with a hiring freeze and mandating that all workers return to the office in person. Heads of all departments and agencies in the executive branch of government are directed

GCCA Applauds Introduction of the FRIDGE Act

The GCCA applauds the introduction of the Fortifying Refrigeration Infrastructure and Developing Global Exports (FRIDGE) Act in the U.S. House of Representatives and the Senate on March 25. The FRIDGE Act would add authority to the Trade Title of the Farm Bill to focus on strengthening the global food supply chain for frozen and refrigerated products.

"The GCCA strongly supports the FRIDGE Act and thanks Representatives Feenstra (R-IA), Mann (R-KS), Costa (D-CA) and Carbajal (D-CA); and Senators Banks (R-IN) and Fetterman (D-PA) for their leadership in introducing this important legislation," says Sara Stickler, GCCA President and CEO. "Given the current uncertainties with tariffs and trade agreements, developing new markets for U.S. products will be extremely important. One of the biggest barriers to increasing trade in emerging markets is the lack of cold chain capacity. The FRIDGE Act would strengthen the ability of these markets to safely and efficiently receive high-quality U.S. perishable commodities, creating new trade opportunities, improving food security and nutrition, and reducing food loss and waste."

GCCA was a strong proponent of the original 2023 bipartisan introduction of the FRIDGE Act in the House and the Senate, which was subsequently included in both the House and Senate versions of the Farm Bill in 2024.

GCCA appreciates the continued bipartisan commitment to strengthening the cold chain, and recognizing its critical role in supply chain resilience and food security to take all necessary steps to terminate remote work arrangements and require employees to return to work in person at their respective duty stations on a full-time basis.

In an effort to reduce the federal workforce, the Office of Personnel Management (OPM) sent federal employees a buyout offer allowing them to resign immediately and retain their pay and benefits through September 30, 2025. It has been reported that approximately 75,000 employees (roughly 3% of the federal workforce) accepted the offer.

Once the offer closed, agencies began to implement "reductions in force" starting with probationary employees. The total number of employees being targeted for reduction is not clear at this time, but administration officials have indicated that further efforts to reduce the workforce are expected.

When the hiring freeze is lifted, agencies will be permitted to hire no more than one employee for every four employees that depart. Changes to the federal workforce could impact how regulatory agencies including the EPA, Occupational Safety and Health Administration, Department of Agriculture and Food and Drug Administration conduct enforcement and engage with industry.

Tariffs

Another policy area that has been subject to numerous executive actions is the use of tariffs.

During the campaign, Trump indicated his intention to utilize tariffs to achieve policy goals as well as rebalance what he sees as unfair trade relationships. Trump has ordered 25% tariffs on Canada and Mexico to pressure them to focus more resources on border security and address fentanyl trafficking. Those tariffs were paused for 30 days as both countries committed to dedicating additional resources to the border.

China has also been hit with an additional 10% tariff on imports citing its role in the production and movement of fentanyl. In addition, new 25% tariffs have also been placed on all aluminum and steel imports, similar to a move Trump made during his first term. Trump is also taking action to implement reciprocal tariffs on countries that are currently placing tariffs on American goods.

Depending on the duration of the tariffs and retaliatory measures taken by trading partners, it is expected that inflationary pressures will mount. This could impact food prices, materials needed for construction and a variety of other goods.

Putting America First in Environmental Agreements

Similar to his first term, Trump has taken action to withdraw the United States from international environmental agreements. This order directed the immediate withdrawal from the Paris Agreement under the United Nations Framework Convention on Climate Change. It also calls for withdrawal from any agreement, pact, accord, or similar commitment made under the United Nations Framework Convention on Climate Change.

It is unclear at this point whether the Trump Administration will move to roll back actions taken under the American Innovation & Manufacturing (AIM) Act to phase down HFCs, consistent with the Kigali Amendment to the Montreal Protocol. The AIM Act had bipartisan support when it passed Congress, and several key rules, such as the Technology Transitions Rule, have been finalized for some time.

However, a recently enacted rule entitled "Management of Certain HFCs and Their Substitutes Under the AIM Act" is currently in the window for potential cancellation under the Congressional Review Act (CRA). The CRA is a tool that allows Congress to cancel regulations finalized within a certain timeframe. Passage requires a simple majority in the House and Senate and presidential signature. Use of the CRA has historically come after a change in administration, such as the current situation.

While it is too early to know the longerterm impacts of Trump's early executive actions, it is clear that his administration is working to transform how the federal government does business. GCCA will continue to engage with policymakers in the Trump Administration and Congress to navigate the evolving landscape and proactively advocate for the cold chain industry.

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COVER STORY

By Alexandra Walsh



ENSURING THE CONTINUITY AND SAFETY OF ESSENTIAL **COLD STORAGE**

Best practices in natural disaster preparedness and recovery.

he cold storage and logistics sector is officially recognized by the U.S. federal government as an essential industry. Fundamental to civic continuity, cold storage warehouses have a crucial role in the survival of communities after a natural disaster. Ensuring their continuity and safety is paramount. This article taps into the institutional experience of GCCA members who provide their own context for applying best practices for natural disaster preparedness and recovery in cold storage and logistic operations.

Understanding Potential Threats

Cold storage warehouses may be affected by a range of natural disasters including earthquakes, floods, hurricanes, tornadoes/cyclones, and wildfires. Understanding the specific risks associated with the location of the warehouse is essential for effective planning.

For cold storage warehouses in low-lying areas or near bodies of water susceptible to flooding, evaluating the flood risk and implementing protective measures such as flood barriers and proper drainage systems is crucial. Facilities in seismically active regions will be designed and retrofitted to withstand seismic events. And in regions prone to hurricanes/cyclones and tornadoes, warehouses should have reinforced structures and secure roofing systems to resist high winds and flying debris.

Following are tips from cold storage operators who are no strangers to the worst forces of nature.

Deluge in Brazil

"The importance of conducting a risk analysis exercise is that once you identify your critical or high risks, you can set the risk treatments to mitigate the severity, and define or revisit your business continuity strategies," says Andres Francke, Leader of the Risk Management Committee at Emergent Cold LatAm. "Especially in regions with a history and higher probability of flooding, risk assessments should begin even before the decision to build or purchase a warehouse. In areas where we are already established, risk assessments are crucial for efficiently managing any incidents."

When discussing new construction, Francke says the projects already take into account a series of risks mapped for the region where the facility will be built with the aim of reducing potential impacts. He adds, "In Latin America, floods, droughts and wildfires are certainly among the most likely events."

Francke adds, "Likewise, the infrastructure of existing warehouses is also analyzed for risk. As part of the mitigation plans, the plant infrastructure and operating procedures are modified to address any gaps."

Francke acknowledges his business has been impacted by flooding. In some cases, both customers and team members have been affected. He offers the Rio Grande do Sul floods in 2024 as one example.

Between April and May, rainfall levels in southern Brazil were extremely high, with the state of Rio Grande do Sul being particularly affected by flooding. Approximately 2.4 million people were displaced, 181 fatalities were reported and there were widespread landslides and a dam collapse. It is considered the country's worst flooding in more than 80 years.

"We operate facilities in this state that were not directly affected by the flooding," reports Francke. "However, many employees were impacted, either because their homes were flooded or because they were unable to commute to work."

Francke says the company's first action was to maintain constant communication with all employees to ensure their well-being and safety. Then, steps were taken to provide full support to those affected, and at the same time, contingency plans were activated to ensure operations could continue with minimal disruption.

Devastated Infrastructure in Florida

"Our Southwest Florida warehouse and railroad have been heavily impacted by major hurricanes striking the west coast of Florida with greater frequency," notes Robert Fay, President, Seminole Gulf Railway/Florida Freezer, Fort Myers, Florida, and Vice Chair, GCCA Transportation. "Most notably in the last 10 years, four major hurricanes brought widespread destruction and utility outages along the west coast of our state."

Fay says Hurricane Ian has been the worst so far, destroying four railroad bridges, heavily damaging two others, and causing widespread and long-lasting outages of both power and water in addition to roadway washouts. He reports it took 18 months to fully rebuild all six railroad bridges and restore all rail service.

"For our cold storage warehouse, the con-

cern became water as much as power loss, on top of fuel availability – without water we could not run our condensing tower," explains Fay. "Even once power and water were restored, the roads were still out in numerous areas, and many of our employees had severe home damage or outright destruction of their homes."

Smoke and Ash in LA

For three weeks in January 2025, a series of 14 destructive wildfires swept through the Los Angeles metropolitan area and San Diego County, California, United States. The fires were exacerbated by hurricaneforce Santa Ana winds, which in some places reached 100 miles per hour. The wildfires destroyed more than 18,000 homes and structures and burned more than 57,000 acres of land in total. The deaths and damage to property from two of the 14 fires made them likely the second and third most destructive fires in California's history.

Larry Rauch, President of Los Angeles Cold Storage recalls, "It was a terrible combination of too much dry undercover and incredibly strong winds that not only spread the fire but prevented air support – they couldn't get the water tankers off the ground."

His warehouse structure has been modified to withstand the identified risks in the area and in Los Angeles, that risk is earthquakes, Rauch points out. "Over the years, we've upgraded support in walls to floors, ceilings to wall, things you do in older buildings. With new construction, the building codes themselves reflect the risks in our area, and up to now, that local risk has been earthquakes."

Rauch notes that realistically, most warehouses are not located in areas prone to wildfires. LA Cold Storage is situated in an industrial zone. "Either because of stronger regulations or an overall uneasiness and concern, the more time passes since the last

American Logistics Aid Network (ALAN)

ALAN serves as a primary point of industry contact for disaster relief support and works to engage the supply chain community to support humanitarian relief efforts. ALAN promotes donation needs to the logistics industry and establishes an efficient process for providing the necessary goods and services through its Web portal, www.alanaid.org.

big earthquake, the more you think there will be another one," he says. "Companies are building warehouses more able to sustain their local natural risks - for the most part, companies are paying attention, and facilities are as hardened as possible".

Teams Always Come First

Francke says when the floods hit, the company's first action was to maintain constant communication with all employees to ensure their well-being and safety. Then, steps were taken to provide full support to those affected, and at the same time, contingency plans were activated to ensure operations could continue with minimal disruption.

Rauch says fires in parts of Los Angeles caused a number of their team members to evacuate their homes, and fortunately none lost a home. "What we did have to deal with at the warehouses, and almost the whole Los Angeles area, was smoke and ash everywhere."

"Check on your internal and external people, because if your employees, clients and vendors are not okay, your business will not be either, even if your 'things' are fine," says Fay. "That task is then immediately followed by on-site inspections when it is safe to do so."

Often after catastrophic storms, it is not safe to be on the roads for some time, Faye points out. "We consider ourselves emergency responders and train as such (both for the warehouse and the railroad teams) and we have the equipment and communications to be self-sufficient and look after our teams."

Powering Up

"Yes, we have lost power because of flooding," Francke admits. "A best practice is to have all your electrical connection above potential flooding level in order to operate with your back-up system."

Francke says the installation of power generators in the Latin American cold storage industry primarily considers the risk of supply cuts because of increased demand and low energy generation.

"In Ecuador, for example, the government recently mandated cutting power at least eight hours a day due to the impact of droughts on the capacity of hydroelectric plants," explains Francke. He notes droughts are a recurring issue in other countries in the region making

Disaster Preparedness

Risk Assessment and Planning

Conducting thorough risk assessments is the foundation of disaster preparedness. Identifying potential hazards and their impact helps in developing comprehensive emergency plans.

- Hazard Identification: List potential natural and man-made hazards specific to the warehouse location.
- Impact Analysis: Assess the potential impact of each hazard on operations, infrastructure and stored goods.
- Emergency Response Plan: Develop and document procedures for evacuation, communication and operational continuity during disasters.

Infrastructure and Equipment

Building Design and Maintenance Ensure that the warehouse structure is designed and maintained to withstand identified risks. Regular inspections and maintenance are critical.

- Structural Integrity: Regularly inspect and reinforce building structures to withstand natural disasters.
- Climate Control Systems: Maintain and regularly test refrigeration and HVAC systems to ensure consistent temperature control.

Power Backup

Install and maintain backup power systems to ensure continuous operation during outages.

- Generators: Ensure that generators are functional and have sufficient fuel supply.
- UPS: Install UPS systems to provide immediate backup power to critical systems.

Data Backup

Regularly backup critical data and ensure offsite storage for data redundancy.

- Data Storage: Maintain secure off-site data storage and regular data backup schedules.
- Cybersecurity: Implement robust cybersecurity measures to protect digital infrastructure.

Training and Drills

Conduct regular training and drills for warehouse staff to ensure preparedness for emergencies.

- Emergency Drills: Schedule and conduct regular evacuation and emergency response drills.
- Staff Training: Provide ongoing training on emergency procedures, equipment usage, and safety protocols.

Post-Disaster Recovery

Damage Assessment and Reporting After a disaster, promptly assess damage and report findings to relevant stakeholders.

- Inspection: Conduct detailed inspections of the facility to identify structural and equipment damage.
- Documentation: Document all findings, including photographs and written reports, for insurance and recovery planning.

Recovery and Continuity Implement recovery plans to restore operations and minimize downtime.

- Prioritize Repairs: Address critical repairs first to restore essential functions and prevent further damage.
- Coordinate with Authorities: Work with local authorities and emergency responders to facilitate recovery efforts.

Review and Improvement

Analyze the disaster response and recovery process to identify areas for improvement.

- Post-Incident Review: Conduct a thorough review of the disaster response to evaluate what worked well and what needs improvement.
- Update Plans: Revise and update emergency response and recovery plans based on the review findings.

it important to design energy generation systems that can sustain warehouse demand for many continuous hours.

Drill Baby Drill

"Luckily, hurricanes have long alert times (days if not weeks), so we focus our attention on what our people should do to take care of their own homes and loved ones, and how to best communicate with each other and our clients before and after the storm," says Fay. "We also touch on tornadoes, lightning storms and flooding."

Fay says they take the approach to always be prepared, and the training follows that philosophy. "If you do not train, then you will not be prepared, and extra training beats little or no training," he suggests.

With fire systems, Fay said they learned it is critical to properly test your systems to ensure that water has not entered the pipes into the freezers. "Older pre-action systems are not reliable, and we have spent significant resources to replace our aging systems with modern, multi-sequence systems," says Fay. "We had not had an extended water loss issue until Hurricane Ian in 2022, but that loss has made us rethink risks and solutions."

Francke points out Emergent Cold LatAm has invested in the continuous training of its teams to ensure they are prepared to respond to any identified incident.

"As part of our risk management program, we conduct emergency response training and drill exercises (evacuation) on a regular basis," Francke explains. "Based on these exercises, we reinforce training, analyze response time, update communication protocols and share lessons learned."

After the Incident

"Our post-incident review is part of our 'continuous improvement' mindset," Francke says. "It allows us to update our contingency plans, improve our response time, and mitigate our risk severity in order to protect our business assets and customers."

Francke believes response plans should be reviewed whenever new risks are identified or if during an incident, it is determined that certain measures could be more effective in a future incident of the same nature.

"A good practice is to review our emergency and recovery procedures after each incident," says Francke. "The overall risk management program is reviewed at least once a year."

Is Preparedness Keeping Up With Nature?

"Regardless of the cause, the climate is changing, and we are generally in a warming pattern, particularly water temperatures, which for our part of the world means more frequent and more powerful cyclonic storms," says Fay. "We have come to be in prep mode 24-7-365, while 'hurricane season' is June to November, in between we have tornadoes and wildfires."

"In Latin America, the possible natural disasters tend to be the same, though perhaps more frequent and intense due to climate change," says Francke. "Floods, droughts and wildfires are certainly among the most likely events, with episodes that are increasingly surprising because of their speed and high impact."

Francke says it is important to update emergency plans, have a strong business continuity plan, crisis management plan and continuously train your associates.

Don't Expect Rescue

Disaster preparedness and recovery for cold storage warehouses involve comprehensive planning, infrastructure investment, regular training and continuous improvement. By following these best practices, facilities can ensure the safety of their stored goods and the continuity of their operations, even in the face of unforeseen disasters.

Faye suggests, "What people should really know about handling catastrophes is to be prepared, including 'saving for a rainy day,' and have the means to save yourself - don't expect to be rescued."

"Most critical is to have a plan that you review and test and communicate to workers, and practice and drill so in an emergency, your action plan is tested and effective," says Rauch. "Prepare and practice is more effective than prayer." @

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GCCA Crisis Management Go Team

The GCCA Crisis Management Go Team is prepared to serve GCCA members under a variety of crisis situations including an ammonia leak, warehouse fire, or food recall.

When the Go Team is activated. GCCA staff will initiate a conference call with specialists who will ask questions, review circumstances and advise you, the operator, on best "next steps" in the process.

In the event of an emergency, please contact GCCA as soon as possible by calling: +1 703 373 4300 ext. 7

For non-emergency inquiries, submit an inquiry online or via email at inquiry@gcca.org.

The GCCA Crisis Management Go Team includes the following industry experts:

- Michael Jahncke, Ph.D., Virginia Tech, Food Scientist and GCCF Council of Scientific Advisors (CSA) Chairman
- Faris Karim, Ph.D., Kansas State University, Ammonia Expert and Member of GCCF CSA
- Paul Singh, Ph.D., Michigan State University, Food Packaging Expert and Member of GCCF CSA
- Kevin Philips, Scopelitis, Warehouse Law Expert
- David Binder, Tanner Industries, Ammonia Expert
- Joe Howard, Lockton Companies, Warehouse Legal Liability Insurance Expert
- Tracey Wild, Lockton Companies, Warehouse Insurance Expert

For additional information on crisis management best practices, please utilize the GCCA resource Guide to Effective Warehouse Crisis Management.

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BRINGING VERSATILITY TO LOW CHARGE REFRIGERATION

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CEBA BUILT BY THE BEST FINALIST

By Keith Loria

FIRST CO2-BASED FACILITY FOR CONGEBEC

SINA partners with Canadian cold storage company to maximize energy efficiency and sustainability.

In September 2024, Congebec opened its first CO2-based refrigeration warehouse in Mascouche, Quebec, Canada.

Working hand in hand with developers Rosefellow and Skyline, SINA was brought in to build what would become the largest warehouse in Congebec's portfolio.

From the outset, Congebec had a very specific idea of what it wanted.

"Congebec had a vision to build a state-of-the-art facility that could adapt to the needs of the food industry," says Mahmoud El-Koury, Partner at Québec-based SINA Construction. "The selection of CO2 as the refrigerant is a less toxic refrigerant than ammonia, which was heavily used by operators in the past. This eliminates evacuations and production down-time whenever there is a leak. An integral part of this design choice was Zero-C which has a very innovative approach with CO2 systems."

SINA worked with architect GKC to design Congebec's facility.

"It was a very streamlined design process, and we didn't have to do two steps forward, one step back," El-Koury says. "It's fun to work with a team like Congebec that knows exactly where they're going, and once we made a collective decision, we kept adding to the design."

The new Congebec facility is equipped with a loading dock providing access to 30 doors; three refrigeration plants; two adiabatic



coolers on the roof with variable speed fans and stainless steel coils; two electric boilers that serve as an auxiliary heat source in the event of a shutdown of the refrigeration systems; 46 evaporators for cooling and heating different rooms; 13,000 linear feet of piping; more than 500 valves; and more than 400 probes and sensors that are part of the refrigeration system. An automated central control system manages all climate maintenance in addition to the refrigeration system.

"The building design is compliant with the latest codes and regulations in Quebec and has innovative technology installed that makes the building very energy efficient," El-Koury says.

Congebec was very involved in the build, overseeing such aspects as refrigeration, equipment, racking, plant security, office fit-up and IT infrastructure and networking needs.

"SINA has been a valuable partner and truly made Congebec's vision come to life to create an innovative and sustainable building with a firm engagement toward an autonomous food supply chain," says Jean-François Vallée, Senior VP, Engineering for Congebec. "SINA was key to delivering this technical success and was very collaborative with our energy-conscious approach to implement state-of-the-art energy efficiency solutions within the build."





Left: The new Congebec facility is equipped with a loading dock providing access to 30 doors. (Photo courtesy of KODA) Right: The freezers are equipped with efficient and well-insulated Rytec high speed, bi-parting doors that have a good R-value to prevent heat loss. (Photo courtesy of KODA)

Sustainable Mindset

There were several sustainability considerations that went into the design of the Congebec warehouse. El-Koury explains the team leveraged knowledge and expertise from internal and external partners to find the best combination possible for a most efficient building.

To ensure the warehouse is Congebec's most energy efficient building to date, the decision was made to use CO2 for the refrigeration system with a combination high-tech building management system and adiabatic sub-cooling on the roof.

"This is a more energy-efficient refrigeration design as proven by the lower energy consumption compared to a similar-sized building," El-Koury says. "In addition, this building is also the first in Congebec's portfolio to have no natural gas HVAC heating in the warehouse. All heating is provided by recovering the waste heat from the compressors and using it with a glycol loop to provide hot air for offices, dock, mechanical room, inspection and repacking rooms."

The recovered heat is also used to defrost the evaporators and provide underfloor radiant heating across the warehouse freezers and coolers. Plus, the freezers make use of efficient and well-insulated Rytec high speed bi-parting doors that have a good R-value to prevent heat loss.

"The 30 dock doors are well insulated and regularly checked to make sure no cool air is escaping around the openings," El-Koury says. "The freezers also have destratification fans installed to better circulate the cool air, which leads to more efficient cooling."

Other sustainable choices were utilizing LED lighting both indoors and outdoors, installing two electric vehicle chargers in the parking lot and planting trees around the building to positively impact the local community.

Congebec has also started an initiative in collaboration with Banques Alimentaires du Québec to reduce food waste. By offering freezer space in its multi-temperature facilities, the company helps provide a streamlined alternative track for food that can't reach market by channeling 500,000 kg of food from its customers to those in food insecurity situations every month.

Innovation Abounds

El-Koury points to the heat recuperation on the CO2 system as something the team leaned into heavily for the project.

"We use it for the HVAC system for the offices as well, and that's something we see translate into energy efficiency and minimal maintenance costs later on," he says.

Additionally, from a design aspect, there are a lot of new elements for this project like the swing room, which is one of the warehouse rooms that can either be operated at 4 degrees Celsius or -18 degrees Celsius.

"You have to account for that transition when you're thinking about the envelope and



Congebec was very involved in the build, overseeing such aspects as refrigeration, equipment and racking, (Photo courtesy of KODA)



Attention to detail aligned to Canadian Food Inspection Agency (CFIA) standards resulted in one of the highest grades given by the CFIA on a Congebec new build. (Photo courtesy of Archimed Studios)

the humidity level that you introduce into the building once you go from -18 C to 4 C without losing the integrity of your envelope and your roof system," El-Koury says.

The sophisticated system incorporates liquid sub-cooling devices, frequency inverters on compressor and gas cooler motors, and a comprehensive heat recovery system using a hot glycol loop. This loop efficiently reclaims waste heat from the refrigeration process, providing energy for heating the building, defrosting evaporators and warming the loading dock, reducing reliance on traditional, energy-intensive methods like natural gas.

Beyond refrigeration, innovation extends to the site's material handling equipment. The project utilizes Very Narrow Aisle (VNA) trucks, optimized for warehouse space efficiency. These trucks incorporate regenerative braking, a cutting-edge feature that captures and reuses energy during braking. This regenerative technology not only increases battery life and extends shift duration but also minimizes downtime and associated costs.

"Coupled with a proactive project management approach that emphasized meticulous tracking of project deliverables and deadlines, these innovative strategies propelled the project to successful and timely completion," El-Koury says.

Overcoming Challenges

The warehouse is CFIA (Canadian Food Inspection Agency) certified, but it didn't come without some roadblocks.

The project involved more than 40 suppliers and vendors and the cooperation of every single department within Congebec. In addition, the project required more than 400 deliverables executed by the project team as well as department representatives.

"As a team, together with the developer and the architect, we worked hand-in-hand with the city of Mascouche to present a design that was aesthetic, but also followed the city permitting guidelines without integrating design aspects that would put the building integrity at risk during its intended use," El-Koury says. "As usual, it is of great importance to work diligently to make sure all the preparation work for the electric entry is to Hydro-Quebec standards in order to get the electric entry hooked up on time."

El-Koury notes this attention to detail, aligned to CFIA standards, resulted in one of the highest grades given by the CFIA on a Congebec new build. That is something SINA and the whole team is very proud of.

Supply chain issues also proved challenging. The project was started in an economic climate of uncertainties on material prices and delivery dates - from steel structures to electrical components. Cost increases were minimized by collecting materials upfront and keeping them in the warehouses pre-construction.

Another big challenge involved the sprinkler system.

"It's a system that has a lot of specific requirements and a lot of restraints, such as the time of response for each sprinkler head (about 20 seconds), so the design aspect had to be very specific," El-Koury says. "It required a lot of gallon support, and the city didn't have that much water to give us, so we devised a water reserve in prefabricated tanks on the lot. We had about 320,000 gallons outside the building under the loading area. It was a challenge to have that system function, and it required one of the biggest fire protection pumps to make it work."

A Job Well Done

The site preparation started in March 2022, and 18 months later the project was complete.

"The strength of the project was the team," El-Koury says. "There were many people around the table who were experienced in cold storage. We all delved into our experience to be creative and conceive the best building possible. It was a challenging but fun project. We are proud to be part of this important building in Congebec's history." @

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

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LATIN AMERICAN COLD CHAIN MARKETPLACE CONTINUES TO EXPAND

Exports as well as local consumption drive growth despite infrastructure and technology challenges.

By Alexandra Walsh

he cold chain in Latin America continues its expansion, primarily driven by growing export demand and rising domestic consumption. These factors, in turn, are a response to continued urbanization, income growth and an expanding middle class that is increasing demand for temperature-controlled food.

"In Latin America, we estimate that 40% of the demand is for exports, 20% comes from countries that import for domestic consumption, and the remaining 40% is for the distribution of local production," says Rafa Rocha, Senior Vice President, Commercial at Emergent Cold LatAm. "Countries like Brazil and Mexico are investing in modern cold storage facilities and logistics networks to support this shift, with double-digit growth projected in refrigerated warehousing capacity in key metropolitan areas."

Volumes and Market Drivers

The expectation is for continued growth, and diversification is key to that growth believes Rocha. In addition, he contends the market is driven by factors such as:

- Increased domestic consumption of refrigerated and frozen products, mainly due to urbanization and changing dietary habits.
- Expansion of beef, pork and poultry exports, as well as tropical fruits and seafood, especially to Asia.

- Brazil, Argentina, and Paraguay remain leaders in beef exports, while Brazil continues to be the world's largest poultry exporter.
- Chile leads fruit exports to the United States and China, while Ecuador and Colombia are increasing their exports of bananas and avocados.
- Investments in logistics infrastructure and new distribution centers with advanced technology, especially in Brazil and Mexico.

"Challenges such as political instability, high logistics costs and infrastructure bottlenecks may limit growth in some regions," says Rocha. "However, the overall outlook for 2025 remains positive."

Abel Fernández Burgos, Director Negocios Logísticos RICSA at Polarport in Veracruz and Polarport in Frío Maya, Guatemala, says volumes and activity through the ports at the start of 2025 are increasing. "Polarport Vera-

cruz was up 57% January through February 2025 versus the same timespan in 2024 and Polarport Guatemala was up 20%."

Burgos believes growth drivers include:

- Government Initiatives: The Mexican government's Package Against Inflation and High Costs (PACIC) allows for the importation of meat from countries other than the United States without taxes. This initiative was renewed earlier than usual, facilitating contracts and shipments. Expectations are that PACIC will continue through 2026.
- *Port Capacity*: Due to saturation at Manzanillo Port, Veracruz Port is expected to become a preferred option for South American meat imports, particularly chicken, pork and beef.
- Tariff Threats: The potential for tariffs from the United States is prompting importers to seek alternative sources for beef, chicken and pork.
- Increasing Imports: There is a growing trend in meat imports from South America, and beef imports are expected to increase.

"As for Guatemala, we believe better infrastructure in ports could increase operations, but not significantly. However, it is a very stable market," says Burgos.

"We began 2025 with strong volumes both in domestic markets and exports/imports, and we continue to expect growth in 2025 and 2026," says Francisco Moura, Chief Executive Officer of IceStar. "We have been facing good perspectives at the consumption level both in Chile and Colombia, which entails more demand at warehouses located in the big cities and are focused on distribution operations. Frozen fish, meat and fruit exports also have been performing well, favoring our warehouses located at production areas and ports."

Capacity and Demand

Despite the anticipated growth, Burgos notes there are concerns regarding the cold chain's capacity to meet demand. "Key challenges include traceability, storage capacity and transportation issues."

Currently, there is a deficit in cold storage infrastructure in several Latin American countries, acknowledges Rocha.

"Brazil, Chile and Mexico have the most

Key Food Sectors

Key sectors fueling the growth in domestic consumption and exports in Latin America include:

- Meat and poultry from Brazil, Paraguay and Uruguay, with Brazil remaining the world's largest beef exporter, expected to ship over 2.9 million metric tons in 2025.
- Fish and seafood, led by horse mackerel, salmon and shrimp, from Chile, Peru and Ecuador, where salmon alone accounts for over 700,000 metric tons in exports annually.
- Fruits and vegetables from Mexico, which remains a top global exporter of avocados, berries and tropical fruits, supplying over \$10 billion in fresh produce exports each year.

Courtesy of Emergent LatAm

developed infrastructure but face efficiency challenges," Rocha notes. "Countries such as Peru, Colombia and Ecuador are making investments, especially in the fresh capacity, but there are significant deficiencies."

Rocha adds there are also difficulties in lastmile delivery, particularly in rural areas and he cities the cause as heavy traffic. "To meet the growing demand, further investments in technology, energy efficiency and expanded storage capacity will be necessary," he says.

Technological Breakthroughs

Several emerging technologies are transforming the cold chain in Latin America, enhancing efficiency, reliability and sustainability reports.

Among these technologies, Rocha notes:

- Augmented Reality (AR) for Maintenance
 Training: Implementing HoloLens
 and other AR tools to assist in
 equipment maintenance, technician
 training and remote troubleshooting,
 reducing downtime and improving
 operational efficiency.
- Artificial Intelligence (AI) for Documentation & Process Optimization: AI is helping to automate paperwork, streamline export documentation and enhance predictive analytics for inventory and logistics planning. This reduces administrative bottlenecks and accelerates shipments.
- IoT & Real-Time Temperature Sensors:

 The integration of smart IoT devices and AI-driven analytics enables continuous monitoring of storage and transportation conditions, ensuring products stay within strict temperature parameters and improving food safety.
- Warehouse Automation & Robotics: Automated storage and retrieval systems

- (ASRS), robotics-assisted picking and conveyor systems to enhance the handling of frozen and refrigerated products, increasing efficiency, accuracy and throughput.
- Sustainable Energy & Refrigeration Innovations: Energy-efficient cooling systems, low-impact alternative refrigerants and solar-powered warehouses to reduce environmental footprint. Advanced refrigeration technologies minimize water consumption, optimizing resource efficiency while maintaining strict temperature control for perishable goods.

Burgos says technological advancements being explored include a control tower for real-time visibility of cargo status and traceability, self-service options for scheduling and document management and the application of AI in yard logistics.

Moura says IceStar has been investing in semi-automated warehouses to better service customers and to be competitive in price.

Trade Policies and Tariff Wars

Recent tariff disputes and shifts in global trade policies have the potential to significantly impact trade volumes and flows across Latin America.

"We can face threats as well as opportunities due to the tariff disputes and global trade policy changes. Latin America is usually a neutral continent and has unique production capabilities regarding food production and exports," suggests Moura. "The world needs to buy Latin America's food surplus, so we could face short-term challenges, but in the long run, we are well set to continue growing."

Rocha notes key factors to consider include China's growing demand for meat

and fruit that continues to drive exports from Latin America.

"If trade tensions between China and the United States escalate, China may increase its imports from Latin America to compensate, potentially boosting export volumes from the region," suggests Rocha. "This could lead to a greater need for cold storage capacity in facilities focused on export operations as supply chains adjust to meet increased demand."

Mexico benefits from the USMCA (United States-Mexico-Canada Agreement), ensuring relatively stable trade conditions. However, increased tariffs on agricultural products could disrupt exports to the United States, impacting key supply chains across the region, notes Rocha. "These changes could drive shifts in trade routes and sourcing strategies, affecting the overall cold chain logistics landscape in Latin America, and while some Latin American exporters might face challenges, others could benefit from trade reconfigurations. For example, higher tariffs on certain goods could incentivize greater intraregional trade, such as increased poultry exports from Brazil to Mexico."

Challenges and Prospects

The main risk Burgos anticipates is the capacity to handle reefers when large vessels arrive, potentially causing logistical delays. "To better service cold chain customers, investments at the port include enhancing animal health certification areas, expanding container yards and reefer plugs, and developing infrastructure outside the port for cargo verification."

An opportunity Burgos points to is, "A possible scenario where big meat producers diversify to become traders and importers, taking advantage of their relationships and commercial channels, but they probably won't invest in warehouses or transport, which is an opportunity for the cold chain industry."

Moura notes political uncertainties, mainly those coming from the United States, can disrupt or make changes in some supply chains and therefore impact demand and occupancy levels in some warehouses.

"Key challenges facing the cold chain sector in Latin America include insufficient infrastructure and logistical bottlenecks; high energy costs; stricter sanitary regulations and climate change," says Rocha. "Companies that invest in efficiency and innovation will have a greater competitive advantage in overcoming these challenges."

Rocha believes Latin America will continue to be one of the leading global players in the export of perishable foods, with Mexico holding a strategic position as a logistics hub for supplying the United States. "The region has immense potential but requires continuous investments in infrastructure and technology, as well as a deep understanding of the local realities in each country, to meet the growing global demand."

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

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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.

NEW PROJECTS

Cambodia Cold Chain Technical Assistance, 2025

Partnered with LixCap
In collaboration with LixCap, GCCF is
supporting a strategic review project for a
private cold storage company in Cambodia.
This initiative builds upon previous feasibility and construction advisory assessments
led by GCCF and LixCap in 2019 and 2020,
expanding efforts to enhance Cambodia's cold
chain infrastructure. This project consists of a
commercial and operational assessment, evaluating market demand, operational efficiency
and investment potential. GCCF will provide
industry expertise, technical evaluations and
investor outreach, leveraging its extensive
network to support strategic planning.

ACTIVE PROJECTS

Agricultural Trade and Climate Smart Innovations (ATraCSI) Project, 2023 – 2027

Partnered with Improving Economies for Stronger Communities (IESC)

GCCF is preparing to deliver a series of virtual training modules covering cold chain management; packaging techniques; hygienic handling and operations; national and international regulations; perishable goods inspection processes; emergency management; and new technologies to cold chain operators, processors and inspectors.

Bangladesh Cold Chain Network Development Project, 2024 – 2026

Partnered with Venture37 and LixCap
At publication, this project has been placed
on a stop work order by the Executive Order
"Reevaluating and Realigning United States
Foreign Aid" signed by President Trump on
January 20, 2025. GCCA and GCCF continue
to monitor updates to the development
sector and are optimistic that the project will



The GCCA team volunteering at the Arlington Food Assistance Center in Virginia, United States.

resume after a period of review. This project seeks to develop the cold chain network and offers opportunity for U.S.-based equipment and service providers to enter the Bangladeshi market.

Bangladesh Trade Facilitation (BTF) Project, 2020 – 2025

Partnered with Venture37 and LixCap GCCF continues to support curriculum development for a local vocational school to educate local commercial refrigeration technicians and engineers to provide service and maintenance for cold chain equipment. GCCF experts have continued to advise on best practices in warehouse operation and design with additional technical assistance trips in January 2025.

Cambodia Food for Progress Project, 2025 – 2030

Partnered with Venture37
Funded by the U.S. Department of Agriculture, this Food for Progress project in Cambodia will improve implementation and development of food safety regulations by improving post-harvest handling, increasing adoption of climate smart technologies, providing training on best food safety/SPS practices, and strengthening market linkages. GCCF will leverage its existing network in the region to provide cold chain technical expertise for cold storage design and operations.

Dominican Republic Trade Safe (TraSa) Project, 2021 – 2025

Partnered with Improving Economies for Stronger Communities (IESC)

GCCF continues to support cold chain educational programs, covering topics such as energy management, airport cargo handling and postharvest handling best practices. Additional training opportunities are under consideration as the project plans out its final year.

Rwanda Food for Progress Project, 2025 – 2030

Partnered with Cultivating New Frontiers in Agriculture (CNFA)

Food for Progress Rwanda will improve food insecurity, nutrition and trade of export crops by refining domestic food safety

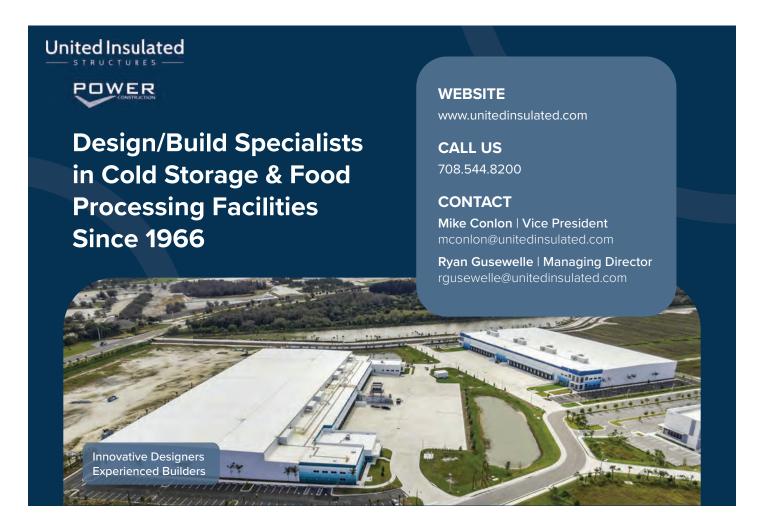
frameworks, enhancing technical capacity for laboratory testing and international accreditation, and strengthening cold chain capacity. GCCF will provide cold chain resources and technical support to local cold chain operators and other organizations handling perishable products.

West Africa Emerging Markets Program, 2024 – 2025

GCCF kicked off the West Africa mentorship program in January, connecting local operators with international experts who can advise on best practices in various aspects of the cold chain. Additionally, GCCF is preparing to deliver in-person and virtual training, consultations and networking events in the region in April.

Ongoing Industry Support to Reduce Food Loss and Waste

GCCF has completed three courses planned for the four-course virtual training that will be housed in the GCCF Cold Chain eCampus. GCCF is also developing a toolkit for members that will provide information on how to donate product and provide ideas on activities that members can take to support their community with food rescue. The toolkit will also include regional policy-specific resources. GCCF is exploring how to expand the pilot of the STOR app; how to measure and record the magnitude of dump/destroy orders; and will roll out a champions program for food waste reduction.





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COOL SOLUTIONS

SCIENTIFIC ANSWERS TO COLD CHAIN CHALLENGES

experts on the GCCF Council of Scientific Advisors (CSA) and the roster of advisors. Submit your cold chain questions to the

We have a potential customer that is importing "dill weed" and other spices in dry containers that are infested with some type of beetle. They want us to place the product in our freezer to kill the bugs. I am very hesitant to introduce this product to our freezer environment even though I do have a pretty good place to isolate the product. Can you advise?

Yes, freezing the product at the right frozen temperature for the correct amount of time will kill the beetles. I also understand your concern about the potential to contaminate your facility with beetles. You

do need to be careful. Depending on whether the product is packaged in individual units or boxes, the freezer hold time will be different. It takes longer for product in the middle of boxes to reach the right frozen temperature. You also need to make sure that the product is properly packaged and that the outside of the product is beetle free. GCCA's Food Freezing and Storage Calculator can calculate the freezing rate. We can provide you with the correct time/temperature requirements.

Ultimately, if you want to go forward with this request, I suggest that you carefully evaluate the situation. You should request that the company send you some photographs of the product and how it is packaged and stored. You may also want to ask the company to send you samples so that you can look at them prior to receiving a large quantity of the product.

This answer was provided by Dr. Michael Jahncke, Chairman of the Council of Scientific Advisors. @



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The Global Cold Chain Foundation (GCCF) Council of Scientific Advisors 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 Sectors.



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Dr. Patrick BrechtPEB Commodities, Refrigerated Transportation Expert



Dr. Cody GiffordUniversity of Wyoming, Meat Products Expert



Dr. Stephanie ClarkNew Mexico State University,
Dairy Products Expert



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



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



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

Have a burning cold chain question? Submit an inquiry to the Council of Scientific Advisors at www.gcca.org/inquiry



MEMBER NEWS

NEWS FROM MEMBERS OF GCCA CORE PARTNERS

AMERICOLD plans to develop its first import-export hub in Canada at Port Saint John in New Brunswick. Americold will invest between \$75 and \$80 million to develop the import-export hub that will provide approximately 22,000 pallet positions. This facility will connect Americold with two of its key strategic partners, DP World and CPKC, in one location to provide a more optimized cold chain for food moving between Canada and its global trading partners.

ARCO NATIONAL CONSTRUCTION is

providing design-build services for a 116,766 square-foot cold storage facility renovation project for Alpine Food Distributing, Inc., a West Coast food redistributor. The

project will provide increased operational efficiencies, shorter lead times, just-in-time product availability, and additional resources for seamless operations. Features will include more than 40,000 square feet of freezer/cooler space, including nearly 10,000 square feet of convertible space capable of accommodating temperatures ranging from -10 degree F to 40°F, and a 2,455 square-foot production cooler for produce processing as well as more than 50,000 square feet of ambient storage. Additional construction details include a transcritical CO2 refrigeration system, 15 dock positions, and 26'6" clear height. Nearly 10,000 SF of office space and break rooms will also be included. Alpine Food anticipates being operational within the facility in late 2024.

COLD-LINK LOGISTICS will build an \$85.5 million cold storage warehouse along Interstate 95 to handle local and regional poultry and other food products. The centerpiece of the project is construction of a 233,000-square-foot, temperature-controlled building on 55 acres in the new Southeast Crossroads Industrial Park in Lumberton, North Carolina. The facility will handle products from poultry businesses and food companies, manufacturers and distributors.

INTERSTATE WAREHOUSING is expanding its warehouse in Kingman, Arizona, a little more than a year after opening its doors. The Kingman facility was full within a couple of months of opening. Construction is already underway on the addition, with the new space

2025 GCCA ADVOCACY FUND

- Reintroduction of the FRIDGE Act
- Streamlining the FSIS export process
- Taking action to delay the compliance date of FSMA 204
- Engaging with EPA to roll back regulatory overreach
- Reducing burdensome OSHA regulations and enforcement policies
- Promoting positive trade policies and mitigating the impacts of tariffs
- Promoting food maximization, like the Feed the Community Act











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MEMBER NEWS

NEWS FROM MEMBERS OF GCCA CORE PARTNERS



Interstate Warehousing is expanding its warehouse in Kingman, Arizona.

scheduled to be open in the 4th quarter of 2025. Phase 2 of the project will add another 194,000 square feet and 24,000 pallet positions to the facility. The 92-acre site was master planned for expansion from the beginning, with room on site for up to 1.2 million square feet. When phase 2 is complete, the facility will cover 467,000 square feet and be home to more than 54,000 pallet positions to serve the frozen food industry.

LINEAGE grew its cold storage network in Western Australia with the acquisition of Fremantle City Coldstores (FCC). The facility is just under 42,000 cubic meters, has more than 8,000 pallet positions, and access and proximity to Fremantle Port, Western Australia's largest general cargo hub. FCC - fully equipped with rooftop solar capacity -primarily services meat and seafood customers and features six blast cells with almost 250,000 kilograms of blast freezing capacity. With this latest acquisition, Lineage now has 15 facilities across Australia.





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BE THERE IN 2025

Throughout the year, the Global Cold Chain Alliance, the Global Cold Chain Foundation and the Controlled Environment Building Association host events worldwide that offer a unique opportunity to meet, learn and be inspired. Here is your 2025 calendar.



GLOBAL COLD CHAIN FOUNDATION COLD CHAIN INSTITUTE

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.

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

28TH GCCA EUROPEAN COLD CHAIN CONFERENCE & EXPO

Bringing together decision makers to discuss market trends, industry challenges, business solutions and technological innovations. The conference also provides ample networking opportunities, enabling attendees to meet and connect with professionals from throughout Europe and around the world.

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

GCCA BRAZILIAN COLD CHAIN CONGRESS

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.

GCCA COLD CHAIN POLICY FORUMS

The GCCA Global Policy Forum offers education and interaction with government and agency officials regarding the rules and regulations that impact the cold chain.

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

GCCA LATIN AMERICAN COLD CHAIN CONGRESS

The 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.

GCCF COLD CHAIN INSTITUTE LATIN AMERICA 14-16 JULY 2025 Mexico City | Mexico GCCA COLD CHAIN POLICY FORUMS 21-23 JULY 2025 **GCCF COLD CHAIN INSTITUTE EUROPE** Washington D.C., United States 2-4 SEPTEMBER **Rotterdam, The Netherlands GCCF COLD CHAIN INSTITUTE BRAZIL 19-21 AUGUST** 134TH GCCA CONVENTION Sao Paulo, Brazil 15-17 SEPTEMBER San Antonio, Texas, United States GCCA LATIN AMERICAN **COLD CHAIN CONGRESS 27-28 AUGUST** Santiago, Chile | TBA JUL AUG NOV **DEC SEP OCT GCCA AFRICAN COLD 45TH CEBA CONFERENCE CHAIN CONFERENCE** AND EXPO **AUGUST 2025** 3-5 NOVEMBER, 2025 **South Africa** Las Vegas, Nevada, United States

GCCA AFRICAN COLD CHAIN CONFERENCE

The event brings together cold store operators, controlledenvironment builders, equipment suppliers and service providers from across Africa to discuss opportunities and innovations of this essential sector

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

GCCF COLD CHAIN INSTITUTE EUROPE

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

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

134TH GCCA CONVENTION

The annual gathering of global warehouse and transportation executives, plus suppliers of equipment and services to the industry, features education, networking and business development opportunities for third-party logistics companies and warehouse operators.

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

45TH CEBA CONFERENCE AND EXPO

The 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.

Audience: Chief engineers, regional facility managers, regional facility maintenance leads, construction engineer managers, owners/CEOs who are building or expanding facilities.







COLD CHAIN MOMENTS

GCCA's 2025 activities are underway, with multiple meetings and conferences taking place around the world.

Talking Trade in Copenhagen

John Clarke, former Chief Agri-Food Negotiator to the World Trade Organization for the European Union, addressed members at the 28th Annual European Cold Chain Conference in Copenhagen, Denmark. His measure was stark:



"The impact of the U.S. measures and the retaliation by China, Canada, Mexico, and presumably soon the EU, will be immediate. Companies must do a rapid screening of their exposure in terms of products, inputs, supply chains, where their suppliers are located, the need or feasibility of relocating either to the United States to avoid tariff walls or to alternative production sites such as ASEAN instead of China. Or change their shippers or shipping routes or ship registrations due to the U.S. ban on Chinese ship deliveries. There is no one size fits all here, and each company will have to look at its individual exposure, hedge and get advice from experts."

Other highlights from the conference include the Market Outlook session, featuring European business leaders Sean Vanderlezen, President of Europe for Lineage; Mathew Moore, Senior Vice President for Global Market Strategy at Americold Logistics; Rob Haesakkers, Managing Director of Thermotraffic; and Jonas Swarttouw, Managing Director of Europe for NewCold and moderated by GCCA Warehouse Chair Tim Ludwig. The group shared insights into how the European cold chain market has fared over the past year, and how innovation and sustainability drivers continue to shape investment strategy.







Cold Chain Investment on the Agenda in California

GCCA leadership was on the stage in Long Beach, California, speaking with cold chain shippers at TPM 2025, and meeting with partners in "The Move to -15C" coalition. GCCA President and CEO Sara Stickler noted "TPM 25 was a valuable showcase of the temperature-controlled logistics industry's innovation, resilience, and commitment to investing for the future. Our industry plays an essential role not only in minimizing food waste but also in the resilience of the food supply chain... the importance of cold chain services will grow as the population changes, and we are faced with additional extreme weather events in a warming world."



Setting Standards in the **Dominican Republic**

The Dominican Republic shows great promise as a hub for the temperature-controlled supply chain, but long-term success will require significant cooperation across multiple parties and finding new ways to set and manage consistent standards. It was a pleasure to cooperate with Asociación de Navieros de la Republica Dominica (ANRD) and ASOLOGIC to host and program the Cold Chain Connection in Santo Domingo in February. @



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ASSOCIATION NEWS

NEWS ABOUT GCCA CORE PARTNERS

The 2025 Regional Council Rosters have been announced. GCCA is grateful to the industry leaders who have agreed to serve on those vitally important consultative forums that guide our activities around the world.

Africa Council

Renier du Preez, Digistics (South Africa); Dr Newton Matope, Bigcold (Kenya); Paul Gibbons, Commercial Cold Holdings (South Africa); Carlos de Mendonca, CrossBerth Cold Store (South Africa); Ivor Queally, QK Cold Stores (South Africa); Owusu Akoto, Freezelink (Ghana); Patrick Fernanders, Afrigotel (Mozambique); Ivan Sutic, Chilleweni Cold Stores (South Africa)

Brazil Council

Adilson Eduardo Assunção, Emergent Cold LatAm (Brazil); Adriano Rocha, Arfrio (Brazil); Bruno Nahas, Refrio, (Brazil); Bruno Vargas, Portonave (Brazil); Fabio Fonseca, Friozem (Brazil); Flavio Martil, Comfrio, (Brazil); Rodrigo Vassimon, Super Frio (Brazil)

Europe Council

Joris Olbrechts, Jodifrost (Belgium); Ben van Leeuwen, Frigolanda (The Netherlands), Phillipe Beaujean, Port of Antwerp Bruges (Belgium); Paul Jukes, Cube Cold (United Kingdom); Maciej Kisiel, Chlodnia Gdansk (Poland); Niels Lundgaard-Svenstrup, Lineage (Denmark); Jon Miles, NewCold (United

Kingdom); Roel Smets, GTS Group, (Belgium); Jeroen Tempels, Americold Logistics (The Netherlands); Ron van Gestel, DP World (Belgium); Jesper Hansen, Wagner Fire Safety (Germany); Kris Verbruggen, Frigo Logistics (Poland)

Latin America Council

Rafael Rocha - Emergent Cold LatAm (Panama); Ewald Heinsen, ABTX Logistics (Dominican Republic), Francisco Moura, Icestar (Brazil); Pablo Hernandez. Precisa Frozen (Chile); Jorge Huanqui Escobedo, ASAP Consulting Group (Peru); Luis Jorge, Rannik (Dominican Republic); Abel Fernandez, Griver, (Mexico)





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ASSOCIATION NEWS

NEWS ABOUT GCCA CORE PARTNERS



Cold Chain Institute Celebrates 60 Years

The GCCF Cold Chain Institute celebrated its 60th birthday this year in the United States, graduating over 61 from the Institute East program in Atlanta, Georgia, and 79 at the Institute West program in Tempe, Arizona.

Open to anyone working in the cold chain, the Institute has a storied reputation of excellent instruction and industry networking. A new cohort starts the three-year program annually and attends a week of in-person instruction per year. Classroom topics include professional development, scientific and food safety aspects, finance, cyber security and emerging technologies.

Held in early and late February, this year's U.S. programs included a 60th anniversary celebration at the beautiful Westin Tempe rooftop, complete with cocktails and photo booth.



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Gloucester City, New Jersey, United States

MORNEAU Borea Cold Storage

Anjou, Quebec, Canada

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Thermcon, Inc.

Nevada, United States

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Appleton, Wisconsin, United States

CoolSys

Brea, California, United States

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Midwest Engineered Systems Inc.

Waukesha, Wisconsin, United States

Platinum National Roofing LLC

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Robots would organize more effectively and likely learn and understand human emotions, which will make workers more productive and the working relationship with robots more symbiotic."

- DEBJIT ROY, PH.D

DEBJIT ROY, PH.D., is a recent addition to the Global Cold Chain Foundation Council of Scientific Advisors and is an expert in Logistics and Operations. Roy is a Professor of Operations Management and Founding Co-chair of the Center for Transportation and Logistics Operations and Decision Sciences Area at the Indian Institute of Management in Ahmedabad, India.

Where do you expect warehouse automation and robotization to be in 10 years.

DR: By 2030, this market is expected to exceed \$51 billion in revenue. Today, robotization is mostly implemented in European countries and at large retailers in the United States, where both land and labor are quite expensive. In the next 10 years, I think robotization will make inroads in emerging economies as the cost of labor and land will become exorbitant. I anticipate more use cases in e-commerce order fulfillment where responsiveness will matter even more, particularly in ultra-fast delivery segments and sortation warehouses. Robots would organize more effectively and likely learn and understand human emotions, which will make workers more productive and the working relationship with robots more symbiotic. On the picking front, the robots will likely be able to pick almost all kinds of products. Overall, automation and robotization will reduce costs, enhance productivity and add more value in the supply chain decisionmaking process.

What do you think will have the biggest impact on refrigerated transportation?

DR: I think there will be applications for truck platoons led by a driver in a lead truck followed by driverless trucks that trail the lead in a coordinated fashion. Such an arrangement will address driver shortages for certain applications. Further, the declining cost of IoT sensors will result in greater control over cargo temperature fluctuations and lower energy costs.

Do you anticipate cold storage design and construction to change because of automation?

DR: Robotization will minimize human exposure to sub-zero temperature zones. Construction will be more vertical; footprints will be smaller. I also think automation will improve human well-being and mitigate supply chain risk (especially during disruptions).

Why are you participating on the GCCF Council of Scientific Advisors?

DR: I knew about cold storage and the mission-critical challenges of cold chains. Further, I chaired several executive education programs where the challenges managing the temperature of time-sensitive cargo during transport was always a discussion point. We all realized how difficult it was to transport vaccines during COVID-19 to the remotest part of India. So, I find cold chain storage and transportation quite fascinating. I think I will

have opportunity to solve real-world problems in this domain and partner on critical projects. I am so excited to join and contribute to impactful research. It's an honor to be associated with the fascinating group that is the GCCF Council of Scientific Advisors.

What early interests led youto a career in logistics and operations?

DR: After finishing my undergraduate degree in 2000, I received a master's degree in supply chain and worked with General Electric for four years. I always had an interest in logistics and supply chain - I find the technology aspect fascinating. In 2006, I started working on a PhD in Industrial Engineering at the University of Wisconsin at Madison. During this time, I would visit the material handling trade fairs in Chicago and saw that the field was full of opportunities. My thesis was in design of automated material handling solutions. When I finished my PhD, I thought it'd be good to do a short stint in the Netherlands because it's such a small country with a heavy emphasis on high velocity logistics. Further, a shortage of land also necessitates dense storage in warehouse and efficiency in warehousing. I was invited to the Netherlands in 2011 to research port operations, and since then I have been involved in port terminal performance management research as well as teaching courses on logistics and operations. When I returned to India in 2012, I was introduced to the fascinating world of trucking and then e-commerce order fulfilment. And 13 years down the lane, I'm still loving it! @







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