

☐ = Shading indicates Exhibit Hall Open

Friday, March 10, 2023				
12:00 PM	5:00 PM	Board Lunch and Meeting – <i>Invitation Only</i>		
5:30 PM	7:00 PM	Board Dinner – <i>Invitation Only</i>		
Saturday, March 11, 2023				
8:30 AM	5:00 PM	Registration Desk Open – <i>Sponsored by RE Lewis</i>	LBCC	Registration Desk
6:30 AM	4:30 PM	NRF Golf Tournament – <i>Paid Registration Required</i>		Anaheim Hills Golf Club
9:00 AM	5:00 PM	Exhibitor Move-in	LBCC	Exhibit Hall A
5:00 PM	7:00 PM	NRF VIP Reception – <i>Invitation Only</i>		
7:00 PM	8:30 PM	International Dinner – <i>Invitation Only</i>		
Sunday, March 12, 2023				
7:00 AM	8:30 AM	Committee Meetings Coffee Break – <i>Sponsored by Isotherm</i>	LBCC	Meeting Room 100/200 Foyers
7:30 AM	5:00 PM	Registration Desk Open – <i>Sponsored by RE Lewis</i>	LBCC	Registration Desk
8:00 AM	5:00 PM	Exhibit Hall Setup	LBCC	Exhibit Hall A
8:00 AM	11:45 AM	Standards Committee	LBCC	Meeting Room 101A
8:00 AM	11:45 AM	Piping Committee	LBCC	Meeting Room 102B
8:00 AM	11:45 AM	Government Relations Committee	LBCC	Meeting Room 103B
8:00 AM	11:45 AM	Education Committee	LBCC	Meeting Room 103C
8:00 AM	10:00 AM	International Committee	LBCC	Meeting Room 101B
8:00 AM	11:45 AM	Research Committee	LBCC	Meeting Room 201B
8:00 AM	11:45 AM	Marketing Committee	LBCC	Meeting Room 202B
8:00 AM	11:45 AM	Energy and Sustainability Committee	LBCC	Meeting Room 202C
8:00 AM	11:45 AM	CO2 Committee	LBCC	Meeting Room 201A
8:00 AM	11:45 AM	AIM ACT Strategic Task Force	LBCC	Meeting Room 202A
10:15 AM	12:15 PM	Latin America (LATAM) Sub-Committee	LBCC	Meeting Room 101B
12:00 PM	2:00 PM	Pickle Ball & Corn Hole Tournament	LBCC	Terrace Plaza
1:00 PM	5:00 PM	Sunday Education Program – <i>Paid Registration Required</i> – Vessel Design, Analysis and Inspection – Speakers: Josiah Royer (Colonial Webb); Dave Crement (RVS); Doug Reindl and/or Todd Jekel (Univ of WI/IRC); Bent Wiencke (Chill On)	LBCC	Meeting Room 104A/B
5:00 PM	5:30 PM	WiNR Reception – <i>Invitation Only</i>		
5:30 PM	6:00 PM	First Timer Reception – <i>Sponsored by Shambaugh and Son</i>	LBCC	Terrace Plaza
6:00 PM	7:00 PM	Chairman's Reception	LBCC	Terrace Plaza
7:00 PM	8:30 PM	Scholarship Students Dinner – <i>Invitation Only</i>		
Monday, March 13, 2023				
7:00 AM	5:00 PM	Registration Desk Open – <i>Sponsored by RE Lewis</i>	LBCC	Registration Desk
7:00 AM	8:00 AM	Continental Breakfast – <i>Sponsored by Mayekawa U.S.A., Inc.</i>	LBCC	Grand Ballroom Foyer
8:00 AM	9:30 AM	Business Meeting (8:00 AM – 8:30 AM)	LBCC	Grand Ballroom
		Keynote (8:30 AM – 9:30 AM) – <i>Sponsored by Emerson Vilter</i>	LBCC	Grand Ballroom
7:30 AM	9:30 AM	<b>Spouse/Guest Program:</b> Breakfast – <i>Paid Registration Required</i>		Renaissance Long Beach Hotel
10:00 AM	11:00 AM	<b>Spouse/Guest Program:</b> Private Yoga Class (10 minute walk from LBCC) – <i>Paid Registration Required</i>		Yoga 108
9:30 AM	1:45 PM	Exhibit Hall Open	LBCC	Exhibit Hall A
9:30 AM	1:45 PM	IIAR Knowledge Center Open – <i>Sponsored by Gamma Graphics Services</i>	LBCC	Exhibit Hall A
9:30 AM	10:00 AM	<b>Technomercial #1:</b> Heat to Cool: using heat pumps to cool our warming planet – Presenter: Robert Unsworth, GEA	LBCC	Exhibit Hall A Technomercial Theater
10:00 AM	10:30 AM	Coffee Break – <i>Sponsored by Parker Hannifin</i>	LBCC	Exhibit Hall A
10:30 AM	11:00 AM	<b>Technomercial #2:</b> First/Next: CO2 Transcritical Compressor Innovates Industrial Sustainability – Presenters (3): Loren Sjoquist, VP/GM, industrial solutions; Lauren MacGowens, Director of Sustainability Programs; and Wayne Wehber, VP of Technology, Emerson Vilter	LBCC	Exhibit Hall A Technomercial Theater
11:15 AM	11:45 AM	<b>Technomercial #3:</b> Solutions to enable decarbonization and system efficiency in NH3 and CO2 applications – Presenter: Hernan Hidalgo, Danfoss	LBCC	Exhibit Hall A Technomercial Theater
12:00 PM	12:30 PM	<b>Technomercial #4:</b> Güntner Adiabatic Technology for CO2 Gas Coolers – Presenter: Tania Herrera, Güntner	LBCC	Exhibit Hall A Technomercial Theater
12:45 PM	1:15 PM	<b>Technomercial #5:</b> Decarbonization Process – heat pumps utilizing natural refrigerants – Presenter: Matteo Iobbi, Frascold	LBCC	Exhibit Hall A Technomercial Theater
12:00 PM	1:30 PM	Buffet Lunch	LBCC	Exhibit Hall A
1:45 PM		Exhibit Hall Closes	LBCC	Exhibit Hall A
1:45 PM	2:35 PM	<b>Tech Paper (Spanish):</b> Integridad Mecánica en Evaporadores de Refrigeración – Presenter: Gabriel Gutierrez, Colmac Coil Manufacturing	LBCC	Meeting Room 202
		<b>Workshop:</b> Ammonia Leaks into Secondary Cooling Systems – Presenter: Travis Townsend, Northstar Refrigeration	LBCC	Meeting Room 203
		<b>Tech Paper:</b> Cybersecurity in Automated Industrial Systems – Presenter: Josh Symonds, CrossnoKaye	LBCC	Meeting Room 201
		<b>Research Panel (Double Session)</b> – Panelists: William Greulich, Bent Wiencke, et al	LBCC	Meeting Room 102
		<b>Workshop:</b> Solving the Technician Shortage (NASRC) – Presenters: Danielle Wright and Bryan Beitler, NASRC	LBCC	Meeting Room 103

# PROGRAM SCHEDULE

## LONG BEACH CONVENTION CENTER



2:40 PM	3:30 PM	<b>Tech Paper:</b> <i>The Cost of Non-Compliance: An Objective Analysis of Federal EPA's Enforcement at Ammonia Facilities</i> – Presenter: Uriah Donaldson, Resource Compliance	LBCC	Meeting Room 201
		<b>Tech Paper:</b> <i>Ammonia Central Stage DX System: Firsthand Experience</i> – Presenter: Finn Dresen, Kältetechnik Dresen + Bremen GmbH	LBCC	Meeting Room 103
		<b>Tech Paper (Spanish):</b> <i>Válvulas de seguridad: una revisión desde las bases hasta los estándares y normas aplicables</i> – Presenter: Juan Carlos Noriega Vargas, Danfoss	LBCC	Meeting Room 202
		<b>Tech Paper:</b> <i>Performance Analysis of CO2 Heat Pump Modes for Refrigeration Systems: A Case Study</i> – Presenters: Will Slope, Air Treatment Corporation and Frédéric Lavallée-Trubiano, Carnot Refrigeration	LBCC	Meeting Room 203
3:30 PM	4:00 PM	Coffee Break	LBCC	Meeting Room 100/200 Foyers
4:00 PM	5:45 PM	<b>Panel:</b> <i>IIAR Efforts Regarding AIM Act and Impact on End</i> (Double Session) – Panelists: Miguel Garrido, Guntner; Mark Stencel, Bassett Mechanical; et al	LBCC	Meeting Room 102
4:00 PM	4:50 PM	<b>Workshop:</b> <i>Efficiency in Large Refrigerated Facilities for Perishable Foods</i> – Presenter: Henry B. Bonar, II; BONAR Engineering, Inc.	LBCC	Meeting Room 201
		<b>Tech Paper (Spanish):</b> <i>Ecuaciones simples para determinación del caudal másico en sistemas de refrigeración</i> – Presenter: Mauricio Quiroga; Johnson Controls	LBCC	Meeting Room 202
		<b>Workshop:</b> <i>Next Generation CO2 Pumps</i> – Presenter: Monika Witt; TH. Witt Kältemaschinenfabrik, GmbH	LBCC	Meeting Room 203
4:55 PM	5:45 PM	<b>Tech Paper:</b> <i>Supercritical carbon dioxide relief calculations</i> – Presenter: William Greulich; Kensington Consulting	LBCC	Meeting Room 103
		<b>Tech Paper:</b> <i>Hot Gas Bypass Defrost</i> – Presenter: Félix Sanz; AEFYT Spain	LBCC	Meeting Room 201
		<b>Tech Paper (Spanish):</b> <i>Stratum Coca Cola, Primer Proyecto Industrial en Costa Rica con Expansión directa en baja temperatura, con baja cantidad de amoníaco y alta eficiencia</i> – Presenters: Lisandro Salas Mora (RSF Costa Rica) and Mario Mora Carli (FrigoConsult and University of Costa Rica)	LBCC	Meeting Room 202
		<b>Tech Paper (Spanish):</b> <i>Cómo Conducir un Análisis PHA</i> – Presenter: Juan Carlos Zeledón, Cargill Nicaragua	LBCC	Meeting Room 203
6:00 PM	8:00 PM	Monday Night Block Party – <i>Sponsored by EVAPCO and M&amp;M Carnot</i>	LBCC	The Cove
<b>Tuesday, March 14, 2023</b>				
7:00 AM	5:00 PM	Registration Desk Open – <i>Sponsored by RE Lewis</i>	LBCC	Registration Desk
7:30 AM		Exhibit Hall Open	LBCC	Exhibit Hall A
7:30 AM	1:15 PM	IIAR Knowledge Center Open – <i>Sponsored by Gamma Graphics Services</i>	LBCC	Exhibit Hall A
7:30 AM	8:30 AM	Buffet Breakfast – <i>Sponsored by Delta Tee International</i>	LBCC	Exhibit Hall A
7:30 AM	9:30 AM	<b>Spouse/Guest Program:</b> Breakfast – <i>Paid Registration Required</i>		Renaissance Long Beach Hotel
8:00 AM	8:30 AM	<b>Technomercial #6:</b> <i>The Largest UL Approved CO2 Transcritical Compressor: Lab Testing and Design Features</i> – Presenter: Mr. Giacomo Pisano, Dorin USA	LBCC	Exhibit Hall A Technomercial Theater
8:30 AM	9:30 AM	Finance Committee Meeting	LBCC	Meeting Room 101
8:45 AM	9:15 AM	<b>Technomercial #7:</b> <i>Insulated Penthouse Evaporator Configurations – New Options and Solutions</i> – Presenter: Jeremy Olberding, VP, Colmac Coil Manufacturing	LBCC	Exhibit Hall A Technomercial Theater
9:30 AM	10:00 AM	<b>Technomercial #8:</b> <i>EVAPCO: The "One Stop Shop" for Customers Considering NH3 or CO2</i> – Presenter: Adam Radford, NA Sales Manager, Industrial Refrigeration, EVAPCO	LBCC	Exhibit Hall A Technomercial Theater
9:30 AM	11:00 AM	Outgoing & Incoming NRF Board Member Meeting – <i>Invitation Only</i>		
9:50 AM		<b>Spouse/Guest Program:</b> Santa Catalina Island Getaway (Departure Long Beach to Avalon) – <i>Paid Registration Required</i>		Catalina Express
10:00 AM	10:30 AM	Coffee Break – <i>Sponsored by CIMCO Refrigeration</i>	LBCC	Exhibit Hall A
10:00 AM	12:00 PM	<b>Training Tutorial:</b> <i>Release Calculation Program</i> – Bent Wiencke, Chill On	LBCC	IIAR Knowledge Center
10:30 AM	11:00 AM	<b>Technomercial #9:</b> <i>Cool(ing) Ideas for a More Sustainable World</i> – Presenter: Dave Anderson, Strategic Account Manager, Baltimore Air Coil	LBCC	Exhibit Hall A Technomercial Theater
11:00 AM	11:30 AM	NRF Board Photos – <i>Invitation Only</i>		
11:15 AM	11:45 AM	<b>Technomercial #10:</b> <i>The Future of Digital Insights and Sustainability</i> – Presenters: Curtis Rager and Jorge De la Torre; Frick/JCI	LBCC	Exhibit Hall A Technomercial Theater
12:00 PM	12:30 PM	<b>Technomercial #11:</b> <i>TBD</i> – Presenter: TBD, MSA Bacharach	LBCC	Exhibit Hall A Technomercial Theater
12:00 PM	1:00 PM	Buffet Lunch	LBCC	Exhibit Hall A
1:15 PM		Exhibit Hall Closes	LBCC	Exhibit Hall A
1:10 PM	4:15 PM	<b>Regulatory Panel</b> (Triple Session) – Panelists: Peter Thomas (Resource Compliance); Lowell Randle (GCCA); Michael Boyle (Cal-OSHA); Dennis Karidis (CalARP); Drew Hart (E&J Gallo)	LBCC	Meeting Room 102
1:10 PM	2:00 PM	<b>Tech Paper:</b> <i>Performance Analysis of CO2 Heat Pump Modes for Refrigeration Systems: A Case Study</i> – Presenters: Will Slope, Air Treatment Corporation and Frédéric Lavallée-Trubiano, Carnot Refrigeration	LBCC	Meeting Room 203
		<b>Tech Paper (Spanish):</b> <i>Integridad Mecánica en Evaporadores de Refrigeración</i> – Presenter: Gabriel Gutierrez, Colmac Coil Manufacturing	LBCC	Meeting Room 202
		<b>Tech Paper:</b> <i>Cybersecurity in Automated Industrial Systems</i> – Presenter: Josh Symonds, CrossnoKaye	LBCC	Meeting Room 201
1:15 PM	1:55 PM	IIAR Board Photos – <i>Invitation Only</i>		
2:00 PM	4:00 PM	Incoming IIAR Board Member Meeting – <i>Invitation Only</i>		
2:05 PM	2:55 PM	<b>Tech Paper:</b> <i>The Cost of Non-Compliance: An Objective Analysis of Federal EPA's Enforcement at Ammonia Facilities</i> – Presenter: Uriah Donaldson, Resource Compliance	LBCC	Meeting Room 201
		<b>Tech Paper:</b> <i>Ammonia Central Stage DX System: Firsthand Experience</i> – Presenter: Finn Dresen, Kältetechnik Dresen + Bremen GmbH	LBCC	Meeting Room 103
		<b>Tech Paper (Spanish):</b> <i>Válvulas de seguridad: una revisión desde las bases hasta los estándares y normas aplicables</i> – Presenter: Juan Carlos Noriega Vargas, Danfoss	LBCC	Meeting Room 202
		<b>Panel:</b> <i>Diversity and Inclusion in Natural Refrigeration: A Women in Natural Refrigeration Workshop - Part 1</i> – Panelists: Melissa Cassell, General Refrigeration / WiNR Committee Chair, RETA Board Member; Monika Witt, TH. Witt Kältemaschinenfabrik, GmbH; Tania Herrera, Guntner; Colleen Keyworth, International Network of Women in Cooling (INWIC) President; Kenny Williams, Past President RETA	LBCC	Meeting Room 203

# PROGRAM SCHEDULE (CONTINUED)

☐ = Shading indicates **Exhibit Hall Open**

2:55 PM	3:25 PM	Coffee Break	LBCC	Meeting Room 100/200 Foyers
3:25 PM	4:15 PM	<b>Workshop (Spanish): Management of Hydrocarbon Refrigerants</b> – Presenter: Gildardo Yañez, Bohn	LBCC	Meeting Room 201
		<b>Tech Paper (Spanish): Ecuaciones simples para determinación del caudal másico en sistemas de refrigeración</b> – Presenter: Mauricio Quiroga; Johnson Controls	LBCC	Meeting Room 202
		<b>Workshop: Diversity and Inclusion in Natural Refrigeration: A Women in Natural Refrigeration Workshop - Part 2</b> – Presenter(s): Claudia Sanchez, Executive Director ACAIRE Colombia	LBCC	Meeting Room 203
3:55 PM		<b>Spouse/Guest Program:</b> Santa Catalina Island Getaway (Return to Long Beach from Avalon)	Catalina Express	
4:00 PM	5:00 PM	Committee Chairs Meeting – <i>Invitation Only</i>		
4:20 PM	5:10 PM	<b>Tech Paper: Supercritical carbon dioxide relief calculations</b> – Presenter: William Greulich; Kensington Consulting	LBCC	Meeting Room 103
		<b>Workshop: CO2 System Add-Ons: Calculations and Field Measurements</b> – Presenter: Giacomo Pisano, Dorin	LBCC	Meeting Room 102
		<b>Tech Paper: Hot Gas Bypass Defrost</b> – Presenter: Félix Sanz; AEFYT Spain	LBCC	Meeting Room 201
		<b>Tech Paper (Spanish): Stratum Coca Cola, Primer Proyecto Industrial en Costa Rica con Expansión directa en baja temperatura, con baja cantidad de amoníaco y alta eficiencia</b> – Presenters: Lisandro Salas Mora (RSF Costa Rica) and Mario Mora Carli (FrigoConsult and University of Costa Rica)	LBCC	Meeting Room 202
		<b>Tech Paper (Spanish): Cómo Conducir un Análisis PHA</b> – Presenter: Juan Carlos Zeledón, Cargill Nicaragua	LBCC	Meeting Room 203
4:45 PM	7:00 PM	Exhibit Hall Open	LBCC	Exhibit Hall A
4:45 PM	7:00 PM	IIAR Knowledge Center Open – <i>Sponsored by Gamma Graphics Services</i>	LBCC	Exhibit Hall A
5:00 PM	5:30 PM	<b>Technomercial #12: Packaged TCCO2 Solutions for Industrial Applications</b> – Presenter: Jessy Adam, M&M Carnot	LBCC	Exhibit Hall A Technomercial Theater
5:45 PM	6:15 PM	<b>Technomercial #13: The Evolution of CO2 Systems in Industrial applications</b> – Presenter: John Collins, P.E., Zero Zone	LBCC	Exhibit Hall A Technomercial Theater
6:00 PM	7:00 PM	Exhibitors Reception	LBCC	Exhibit Hall A
7:00 PM		Exhibit Hall Closes	LBCC	Exhibit Hall A
<b>Wednesday, March 15, 2023</b>				
7:00 AM	9:30 AM	Registration Desk Open – <i>Sponsored by RE Lewis</i>	LBCC	Registration Desk
7:30 AM		Exhibit Hall Open	LBCC	Exhibit Hall A
7:30 AM	9:30 AM	IIAR Knowledge Center Open – <i>Sponsored by Gamma Graphics Services</i>	LBCC	Exhibit Hall A
7:30 AM	9:30 AM	Buffet Breakfast – <i>Sponsored by Bitzer</i>	LBCC	Exhibit Hall A
7:30 AM	9:00 AM	Safety Committee	LBCC	Meeting Room 101
9:15 AM	10:45 AM	Compliance Committee	LBCC	Meeting Room 101
9:30 AM		Exhibit Hall Closes (Exhibitor Breakdown 9:30 AM – 3:00 PM)	LBCC	Exhibit Hall A
10:30 AM	11:00 AM	Coffee Break – <i>Sponsored by Airgas Specialty Products</i>	LBCC	Meeting Room 104A/B Foyer
11:00 AM	12:30 PM	<b>Closing Forum: Implications of the Tampa Electric Company Court Decision</b> – Speakers: Valerie Butera, Esquire, Ogletree Deakins; Gary Smith, CEO Ammonia Safety Training Institute; Manny Ehrlich, Chemical Safety Board (retired)	LBCC	Meeting Room 104A/B
12:30 PM		Conference Adjourns		