



THE **GREENCHILL** PARTNERSHIP



GreenChill Collaboration with Service Technicians

March 28, 2013



Today's Host: Keilly Witman

Keilly Witman

U.S. Environmental Protection Agency

The GreenChill Partnership

Phone: 202-343-9742

Email: witman.keilly@epa.gov

Keilly works to protect the earth's ozone layer and fight climate change in the EPA's Stratospheric Protection Division. She runs the GreenChill Partnership, which is a program to help the supermarket industry reduce ozone-depleting and greenhouse gas refrigerant emissions.



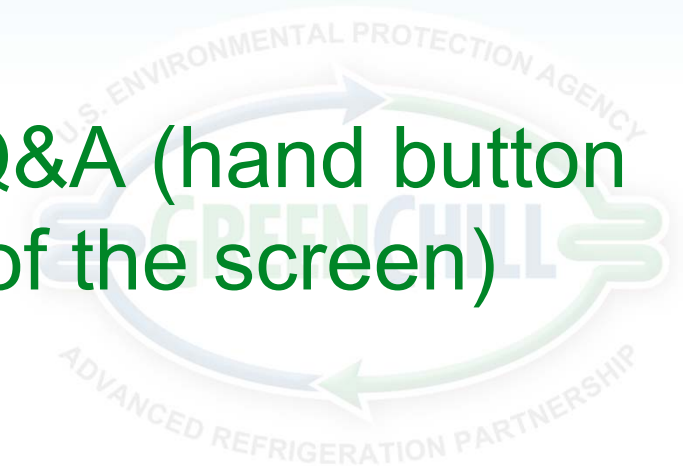
Welcome / Webinar Etiquette

- ▶ Webinar is being recorded
- ▶ Recording will be available on GreenChill LinkedIn site and GreenChill website, under “Events and Webinars”: www.epa.gov/greenchill
- ▶ Phones are muted

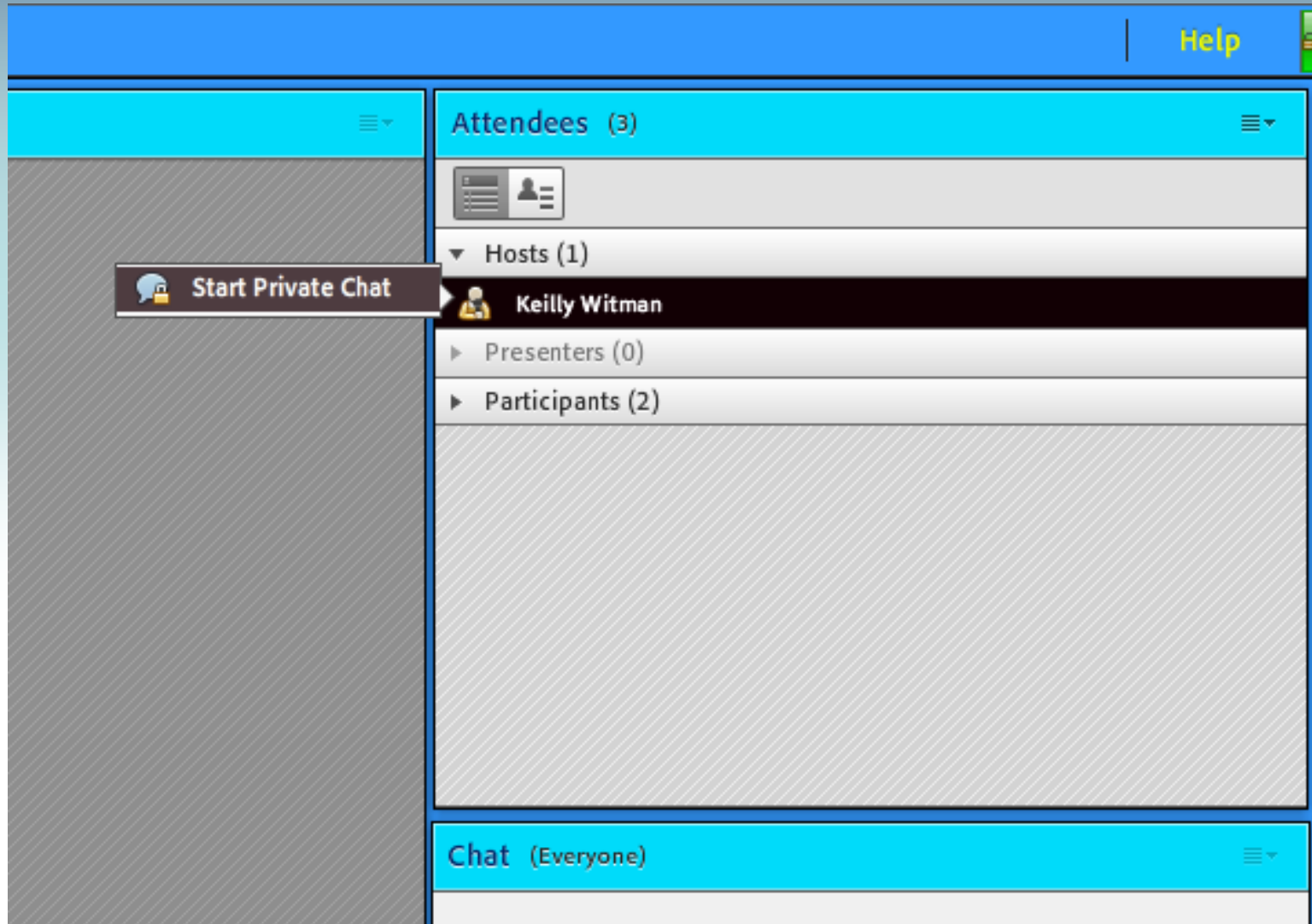


Q & A

- ▶ Q&A session after presentation
- ▶ Submit your questions using CHAT at anytime; we'll go through them during Q&A
 - ▶ If you'd like to remain anonymous, send your question by CHAT to Keilly Witman instead of to all participants
- ▶ Raise your hand during Q&A (hand button is on the upper right part of the screen)



Sending Questions via Chat



Sending Questions via Chat

The image shows a chat window titled "Chat (Everyone)". The chat history contains four messages from a "Presenter":

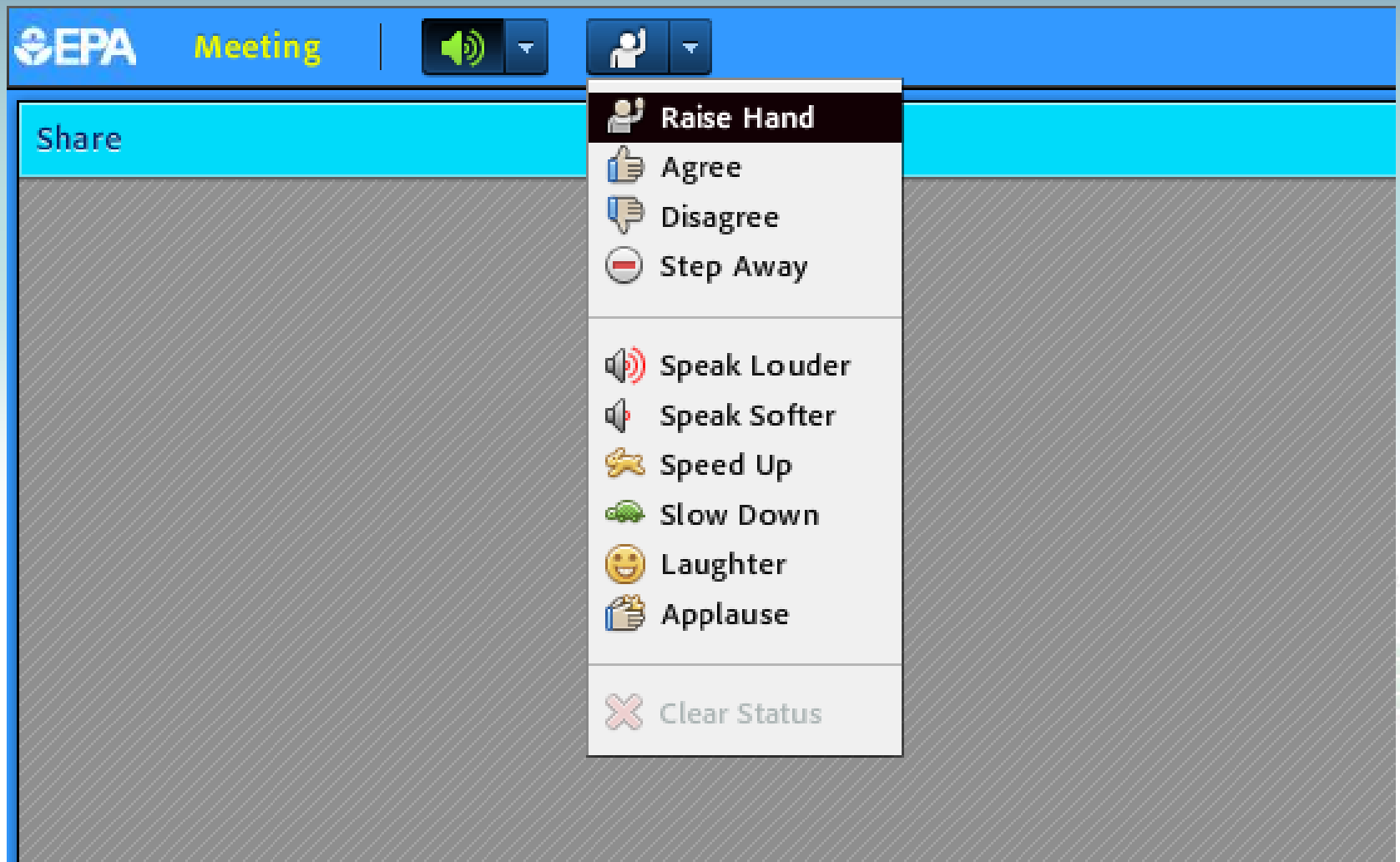
- Presenter: Welcome to to
- Presenter: We'll get start
- Presenter: If you have questions feel free to rais
- Presenter: The slides and audio recording from available on the GreenChill LinkedIn site soon a

A context menu is open over the chat area, with the following options:

- Start Chat With
- Text Size
- My Chat Color
- Help

The "Hosts" option is highlighted in the menu. At the bottom of the chat window, there is a text input field and a send button. Below the input field, there are two tabs: "Everyone" and "Hosts", with "Hosts" being the active tab.

Raising Your Hand



Today's speakers...



Today's Presenters – Mitch Pearson

Mitch Pearson

Sales Principal

Hussmann Corp.

Office: 909-548-2599

Email: Mitch.pearson@hussmann.com



Based in Chino, CA, Mitch is responsible for Hussmann product sales serving West coast and Southwest supermarket customers. Mitch has been actively involved assisting customers and contractors achieve EPA GreenChill certifications since GreenChill's inception, and is a proud recipient of the EPA GreenChill 2010-2011 Individual Distinguished Partner award.



Today's Presenters – Bob Siddoway

Bob Siddoway

Refrigeration/Energy Manager

Sprouts Farmers Market

Office: 480-814-8016

Email: bobsiddoway@sprouts.com



Bob has been in the refrigeration industry for over 30 years. He came to Sprouts 2 years ago where he was introduced to the GreenChill practices. Bob has many different tasks at Sprouts including certifying and recertifying the GreenChill qualified stores.



Today's Presenters – Bill Almquist

Bill Almquist

President and CEO

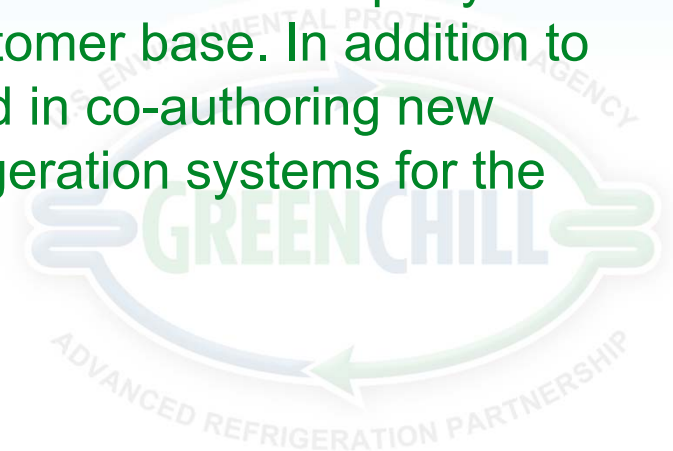
Almcoe Refrigeration Company

Office: 214-381-2113

Email: bill@almcoe.com



Bill has been at Almcoe since 1976 and has lead the Company to be an essential resource to its diverse customer base. In addition to his company responsibilities, he is involved in co-authoring new guidelines for the maintenance of DX refrigeration systems for the EPA's GreenChill Partnership.



Today's Presenter – Brad Person

Brad Person

SVP of Operations

Source Refrigeration & HVAC

Office: 714-578-2300

Email:

Bperson@sourcerefrigeration.com



Brad is responsible for the service and installation operations for Source Refrigeration & HVAC. He has been involved with key advanced refrigeration system projects using Ammonia, CO₂, and Glycol with numerous supermarket and warehouse retailers. Brad has a B.S. in Finance from Arizona State University in Tempe, AZ.



Today's Presenters – Michael Ellinger

Michael Ellinger

Global Maintenance and Refrigeration
Manager

Whole Foods Market

Office: 303-920-5458

Email: Mike.Ellinger@wholefoods.com



Mike is responsible for Whole Foods Market's maintenance, refrigeration, and energy national guidance. Mike is involved with key advanced refrigeration system projects using CO₂ and glycol. In Mike's former position he was responsible for Refrigeration, Maintenance, and Energy for the Rocky Mountain region. Mike also manages GreenChill program administration for Whole Foods Market.



GreenChill's Mission

Keilly Witman

U.S. EPA GreenChill Partnership





THE GREENCHILL PARTNERSHIP



▶ GREENCHILL Mission:

- ▶ Reduce supermarket refrigerant emissions that harm the ozone layer and climate

▶ Our Goals:

- ▶ Choose ozone & climate friendlier refrigerants
- ▶ Reduce the amount of harmful refrigerant used and leaked
- ▶ Prevent rather than repair - advanced technologies & environmental best practices

How It Works



Corporate Emissions Reduction Program

Partners measure corporate-wide refrigerant emissions, set annual emissions reduction goals, and report their emissions data to EPA

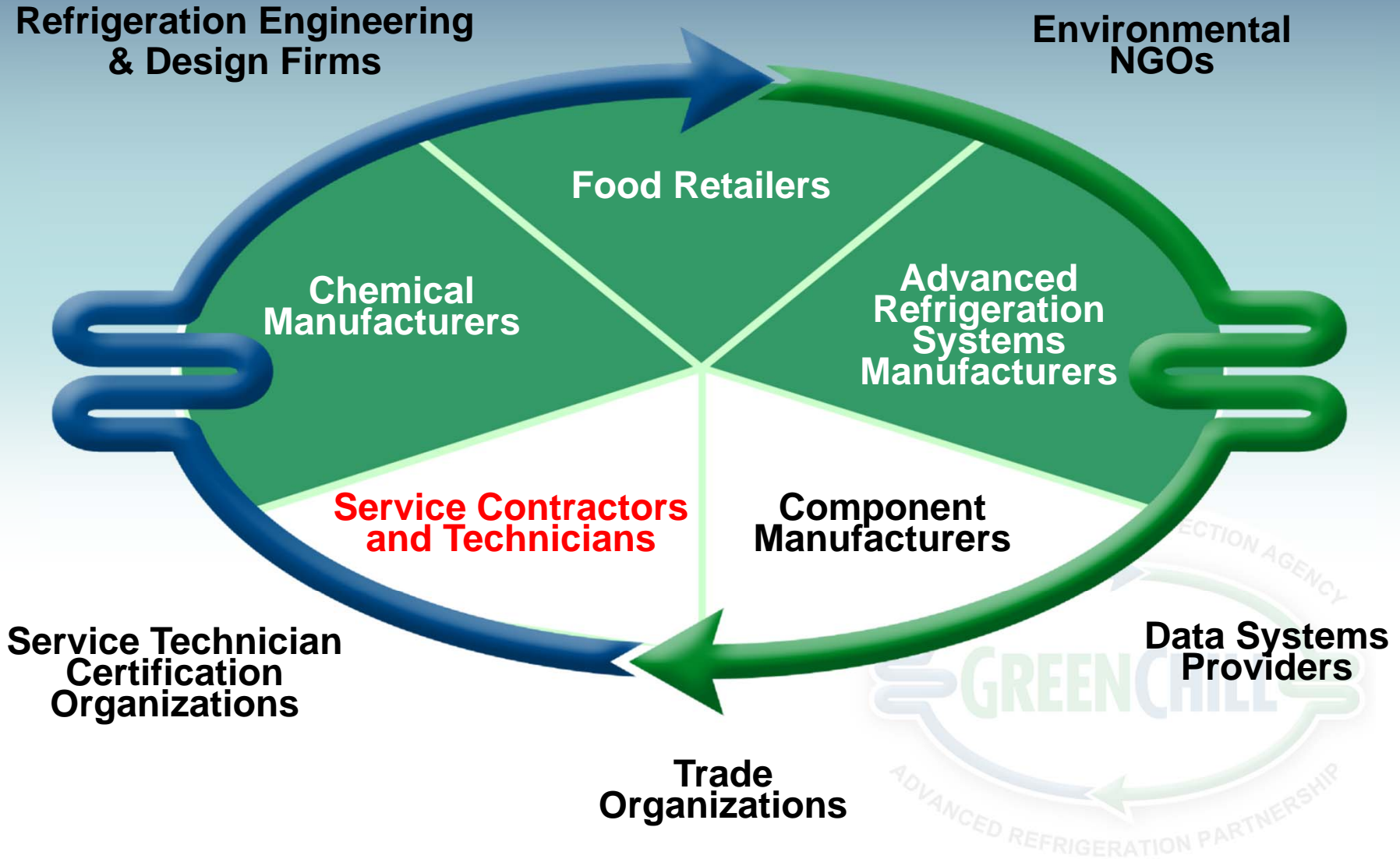
Store Certification Program

Awards platinum, gold, or silver certification to individual stores that meet criteria for charge size, leak reduction, and type of refrigerant

Advanced Refrigeration Program

Promotes technologies and environmental best practices to reduce harmful refrigerant emissions

Key Stakeholders



Service Technicians & GreenChill's Corporate Emissions Reduction Program

Mike Ellinger

Whole Foods Market

Brad Person

Source Refrigeration



Emissions Reduction Programs and Goals: Collaboration Opportunities

- ▶ Supermarkets are adopting emissions reduction goals and complementary programs.
- ▶ Supermarkets cannot achieve these goals without the support of service technicians who are trained in the best practices for leak prevention and reduction.
- ▶ Periodic supermarket and contractor meetings to collaborate on specific initiatives and goals keeps teams focused.



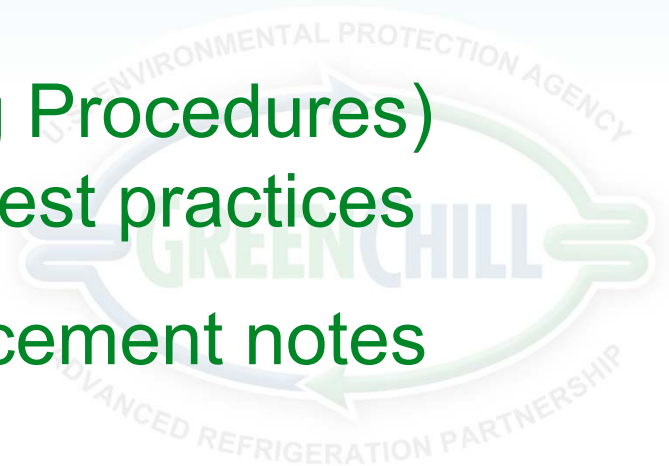
Emissions Reduction Programs and Goals: Collaboration Opportunities

- ▶ Review leak rate trends and root causes of higher leak rate stores
- ▶ Develop a list of corrective actions for specific stores to mitigate the leak trend
- ▶ Constant reinforcement of the GreenChill objectives to the servicing field technicians
- ▶ Validate data recording accuracies of contractors



Emissions Reduction Programs and Goals: Collaboration Opportunities

- ▶ Service technicians who are trained to operate with a “GreenChill mindset” are better prepared to help supermarket achieve their emissions reduction goals
- ▶ Utilize GreenChill’s best practices in your technician training program
- ▶ Set SOP’s (Service Operating Procedures) consistent with GreenChill’s best practices
- ▶ Customer expectation reinforcement notes

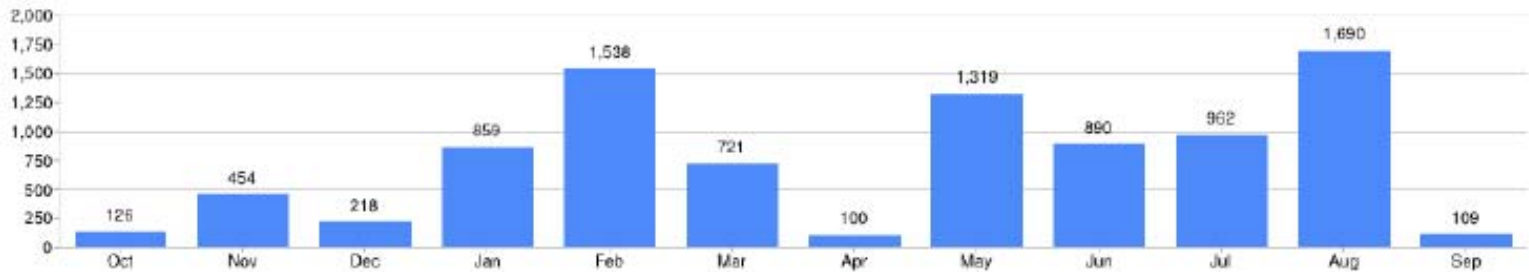


Emissions Reduction Programs and Goals: Collaboration Opportunities

- ▶ Leak detection equipment operation and setting training and adherence.
- ▶ ELC (Expert Leak Checker) status and follow up process.
- ▶ Real time data flagging system that identifies issues and triggers appropriate technician and management actions.



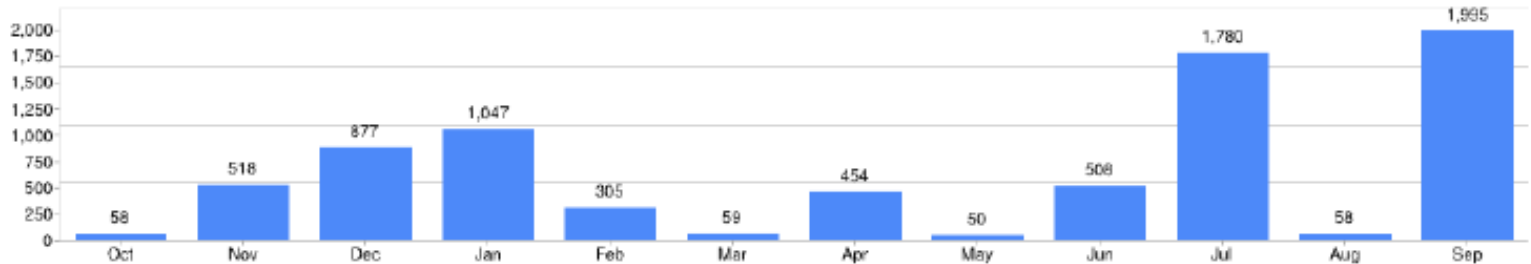
Refrigerant Management Tools



Refrigerant	Graph	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	YTD
Refrigerant IM3		126	454	218	859	1,538	721	100	1,319	890	962	1,690	109	8,986

Refrigerant	Graph	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	YTD
1083		100	3	8	8	10	176	0	0	0	30	40	90	465
1095		0	0	96	0	662	2	0	2	1	3	9	18	793
1142		0	250	18	150	150	210	0	0	200	0	0	0	978
1146		0	0	96	1	413	0	0	0	96	48	6	0	660
1207		0	0	0	0	300	3	0	0	288	649	0	0	1,240
1218		0	7	0	4	2	0	0	0	4	171	196	0	384
1273		0	0	0	0	0	0	0	0	0	11	0	0	11
1301		26	0	0	0	1	0	0	9	2	0	0	0	38
1331		0	0	0	70	0	0	10	6	210	0	50	0	346
1350		0	0	0	0	0	0	0	0	0	0	90	0	90
1373		0	0	0	1	0	0	0	0	5	50	0	1	57
1394		0	0	0	0	0	90	90	294	0	0	0	0	474
1405		0	1	0	0	0	0	0	0	0	0	0	0	1
1423		0	193	0	625	0	240	0	0	24	0	144	0	1,226
1435		0	0	0	0	0	0	0	0	0	0	3	0	3
1445		0	0	0	0	0	0	0	100	0	0	192	0	292
1010		0	0	0	0	0	0	0	0	10	0	0	0	10
RYCO		0	0	0	0	0	0	0	908	0	0	960	0	1,868
IAKE		0	0	0	0	0	0	0	0	50	0	0	0	50

Refrigerant Management Tools



Refrigerant	Graph	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	YTD
h: IM3		58	518	877	1,047	305	59	454	50	508	1,780	58	1,995	7,709

Refrigerant	Graph	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	YTD
J083		0	270	60	141	0	0	1	0	2	321	0	60	855
J095		0	101	0	1	0	0	288	0	48	398	0	0	836
J142		0	0	0	0	0	0	0	0	371	0	0	0	371
J146		0	0	0	3	1	0	0	0	0	0	0	0	4
J207		0	0	3	0	1	0	0	2	4	960	2	1	973
J218		10	0	0	0	1	1	0	0	5	0	0	1,413	1,430
J273		0	0	0	208	0	1	0	0	0	4	4	0	217
J301		9	0	13	0	0	10	0	38	11	70	6	8	165
J331		0	0	0	0	0	0	1	10	6	6	0	3	26
J350		39	0	1	150	0	0	0	0	0	15	42	0	247
J373		0	0	0	0	0	0	100	0	0	0	4	2	106
J394		0	0	0	0	0	0	0	0	0	0	0	300	300
J405		0	0	0	144	96	4	0	0	0	0	0	0	244
J423		0	0	0	0	0	0	48	0	0	0	0	0	48
J435		0	0	0	0	0	4	0	0	0	0	0	0	4
J445		0	147	0	0	146	0	6	0	0	6	0	0	305
J010		0	0	0	0	0	0	0	0	0	0	0	5	5
CRYCO		0	0	0	400	0	12	0	0	36	0	0	113	561
BAKE		0	0	800	0	60	0	10	0	0	0	0	90	960
IGCORP		0	0	0	0	0	27	0	0	25	0	0	0	52

Refrigerant Management Tools

High Refrigerant Consumption

Store	3/20/13	3/19/13	3/18/13	3/17/13	3/16/13	3/15/13	3/14/13	Last 7 Days	Last 30 Days
Store 1	0	0	0	0	0	0	0	0	240
Store 2	0	0	0	0	0	150	0	150	150
Store 3	0	0	0	0	0	40	0	40	40



Emissions Reduction Programs and Goals: Benefits of Collaboration

- ▶ **Benefits to service technicians**
 - ▶ Familiarity with GreenChill best practices can give you an advantage over the competition – it shows clients that you share their goals
 - ▶ Operating with a “GreenChill mindset” will save your clients money and build your reputation
- ▶ **Benefits to supermarkets**
 - ▶ Having a team of contractors who manage your refrigerant with a “GreenChill mindset” will save you money
 - ▶ Helps GreenChill supermarket Partners achieve annual emissions reductions goals and earn achievement awards



Service Technicians & GreenChill's Store Certification Program

Mitch Pearson

Husmann Corporation

Bob Siddoway

Sprouts Farmers Market



GreenChill Certification: Collaboration Opportunities

- ▶ Many supermarkets have adopted goals for achieving GreenChill certification in new stores and remodels
- ▶ GreenChill certification requires that refrigeration technicians be involved in:
 - ▶ Installation
 - ▶ Documentation



GreenChill Certification: Collaboration Opportunities

- ▶ Refrigeration contractors play a key role in GreenChill certifications
- ▶ Achieving GreenChill certification for a supermarket is a significant accomplishment that sets refrigeration contractors apart



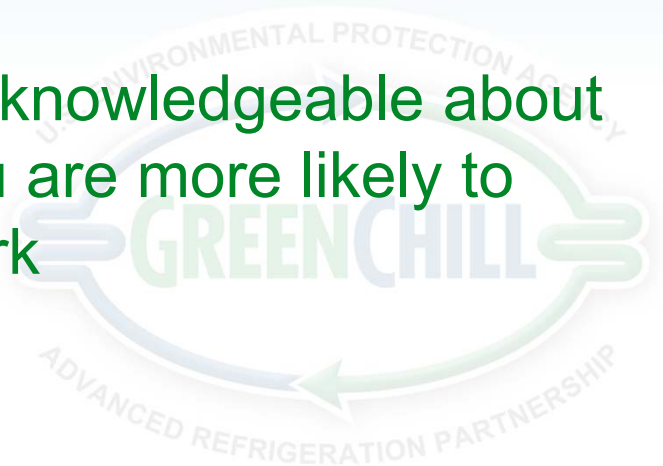
GreenChill Certification: Benefits of Collaboration

▶ Benefits to refrigeration contractors:

Contractors who have earned GreenChill certification for stores are better positioned to win contracts with clients who are increasingly demanding GreenChill certification

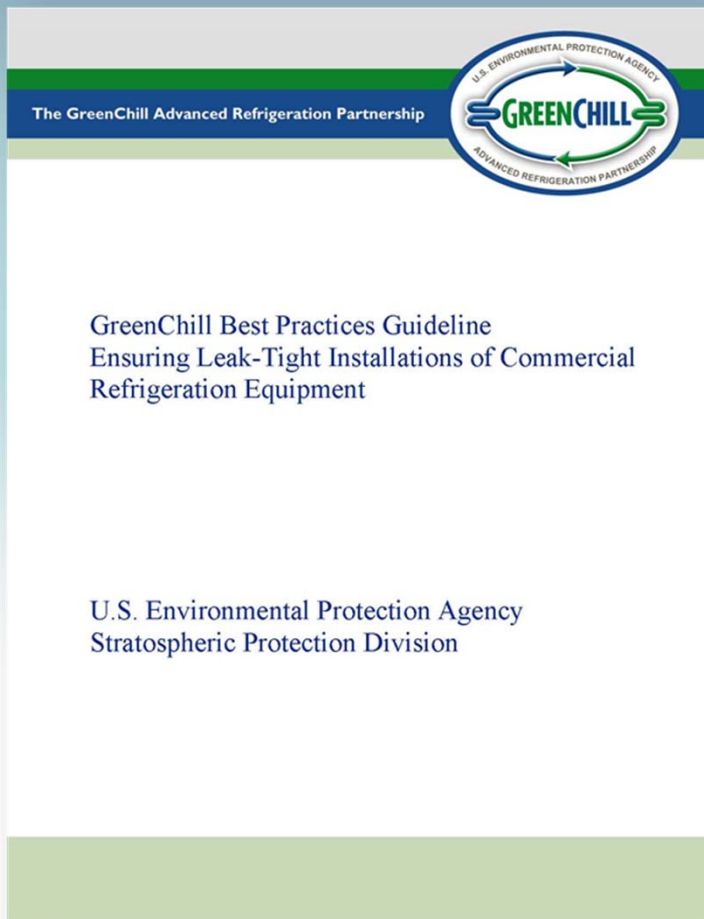
▶ Benefits to supermarkets:

Working with contractors who are knowledgeable about GreenChill certification means you are more likely to earn certification, with less leg work



GreenChill Certification: Service Technicians' Role

- ▶ Become familiar with GreenChill's leak-tight installation guideline



www.epa.gov/greenchill/downloads/LeakGuidelines.pdf

GreenChill Certification: Service Technicians' Role

- ▶ Minimize refrigerant charge and leak points.
- ▶ Minimize piping and fittings to reduce leak points and refrigerant charge.
- ▶ Do not overcharge, but charge only as required to operate system as allowed per customer specifications.
- ▶ Adhere to leak tightness guidelines.
- ▶ Document refrigerant type and final charge.



GreenChill Certification: Service Technicians' Role

- ▶ Review actual building conditions against engineering recommended piping runs and sizing. Are there opportunities to reduce piping runs and line sizes, but still comply with customer specifications?
- ▶ Verify engineered pipe sizes and routing are correct. Consult with engineer if it appears piping runs/sizes could be reduced.



GreenChill Certification: Service Technicians' Role

- ▶ Supporting documentation for refrigerant charge:
A letter, signed by an authorized installation company representative, detailing the amount of refrigerant (lbs.) the commercial refrigeration system holds when properly charged. Submit to customer or person handling GreenChill certification process.



GreenChill Certification: Service Technicians' Role

▶ Letter verifying installer tested remote commercial system:

A letter, signed by an authorized installation company representative, verifying that he/she tested the remote commercial refrigeration system per GreenChill's *Best Practices Guideline for Leak Tightness at Installation* prior to the store's opening. Submit letter to customer or person handling certification process (can be combined with refrigerant charge letter).



Sprouts' Experience

- ▶ Sprouts has been a GreenChill Partner for several years
- ▶ GreenChill has changed Sprouts' perspective on ensuring leak-tight installations and reducing refrigerant leaks
 - ▶ It is about more than earning GreenChill certification
- ▶ Certifications are a team effort
 - ▶ The GreenChill team
 - ▶ Racks and case engineers and their teams
 - ▶ Installing contractors
 - ▶ Sprouts' project managers and office staff



Benefits to Supermarkets

- ▶ It is now a priority that new contractors understand
 - ▶ What it means to be a GreenChill Partner
 - ▶ That there are high expectations associated with installing and servicing stores
 - ▶ Every store should be eligible for GreenChill certification
- ▶ Sprouts has seen significant economic savings
- ▶ Sprouts is recertifying stores that have little or no refrigerant emissions from year-to-year
- ▶ GreenChill builds confidence that stores are leak-tight when installed and they will be leak-tight into the future
- ▶ Customers benefit and appreciate these efforts



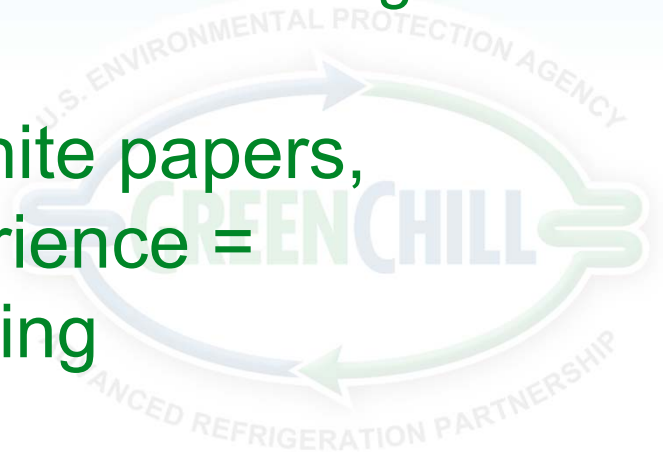
Service Technicians & GreenChill's Advanced Refrigeration Program

Bill Almquist
Almcoe



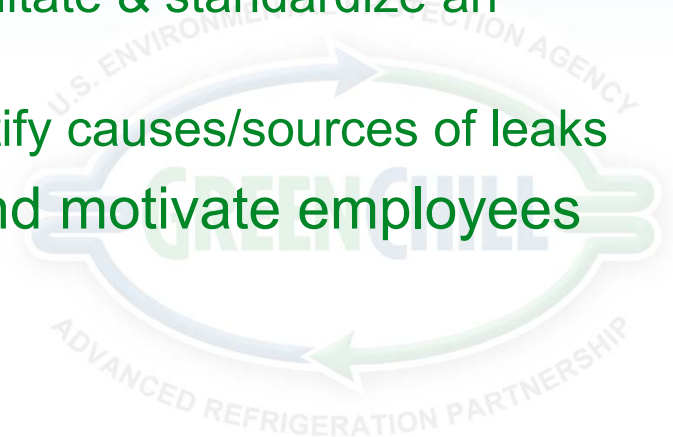
Advanced Refrigeration Program: Collaboration Opportunities

- ▶ Volunteer for teams that develop best practice guidelines for GreenChill
- ▶ Suggest webinar topics
- ▶ Present webinars
- ▶ Get involved on the GreenChill [LinkedIn](#) group
 - ▶ Participate by responding to posts and sharing pertinent technical information
- ▶ Share relevant analyses or white papers, communicate problems, experience = Participate in information sharing



Advanced Refrigeration Program: Benefits to Service Contractors

- ▶ It's good for business
 - ▶ Best practice guidelines & webinars, etc: what better way to be recognized as an expert in your field?
 - ▶ Positive exposure
 - ▶ Getting involved with GreenChill leads to increased focus in your own company on best practices, prevention, and being the best in this area
 - ▶ Maintenance metrics/checklists to facilitate & standardize an approach to maintenance
 - ▶ Provides systematic approach to identify causes/sources of leaks
 - ▶ Helps to communicate successes and motivate employees
 - ▶ “We helped certify another store!”
 - ▶ Reduces operating costs



Advanced Refrigeration Program: Benefits to Service Contractors

- ▶ It's very rewarding
 - ▶ The people you deal with in GreenChill are the people who are leading in this area
 - ▶ GreenChill is the center of excellence for refrigerant management
 - ▶ Get to see a final product with your name on it, which represents the culmination of what you've learned over the years.



Advanced Refrigeration Program: Benefits to Supermarkets

- ▶ The most advanced refrigeration system won't do anything for the environment or the bottom line if it's not installed properly
- ▶ Service techs that are trained in best practices work more efficiently
 - ▶ Greater svc tech satisfaction with the switch from repair-based maintenance to prevention-based maintenance
 - ▶ You don't have to invest in training the service tech or spend time explaining the GreenChill mindset
- ▶ Service techs that embrace the GreenChill mindset can proactively offer opportunities for improvement



Bringing it All Together

Keilly Witman

U.S. EPA GreenChill Partnership



Summary

- ▶ Service technicians should be seeking opportunities to collaborate with supermarkets and GreenChill in each of its three areas:
 - ▶ Corporate Emissions Reduction Program
 - ▶ Store Certification Program
 - ▶ Advanced Refrigeration Program



Other Ways for Service Technicians to be Involved in GreenChill

- ▶ Sharing ideas and experience through GreenChill's [LinkedIn Group](#)
- ▶ Participating in GreenChill webinars
- ▶ Talking about GreenChill to other stakeholders
- ▶ Promoting GreenChill on web sites to highlight familiarity with the program



Question and Answer Period



Thank you!

- ▶ Mitch Pearson, Hussmann Corporation
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