



***GreenChill Advanced Refrigeration Partnership***



***Food Retail Store Certification Program  
for Advanced Refrigeration Technology***



# Agenda

- ▶ Why we have a certification program
- ▶ Why stores should want to achieve certification
- ▶ Program overview
- ▶ Brief explanation of criteria
- ▶ Explanation of the process
- ▶ What you get
- ▶ Experience thus far
- ▶ Some guidance
- ▶ Special Thanks
- ▶ Contact info



# GreenChill's Certification Program

## Why us?

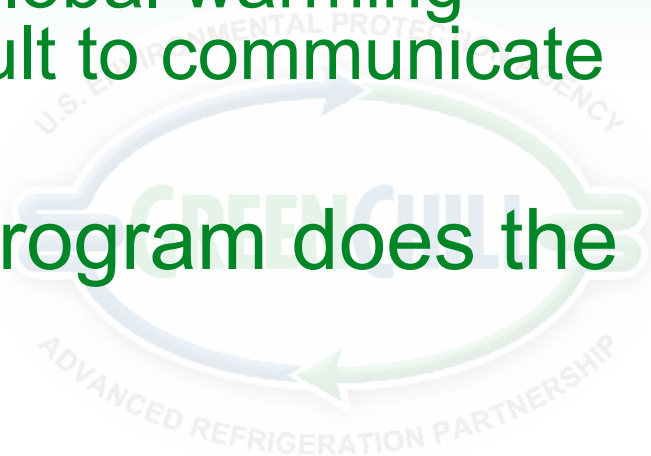
- ▶ Environment is an important issue for consumers
- ▶ Consumer need for information
- ▶ Refrigeration is a large part of supermarket environmental footprint
- ▶ Need a way to recognize excellence
- ▶ It didn't exist yet
- ▶ We tried to get others to do it



# GreenChill's Certification Program

## Why you? Recognition.

- ▶ Important for stores to communicate with customers about the environment
  - ▶ If you don't tell them, they don't know!
- ▶ THE big issue: global warming
  - ▶ Supermarket refrigeration/global warming - very technical issues, difficult to communicate
- ▶ GreenChill's certification program does the communicating for you



# GreenChill's Certification Program Overview

- ▶ EPA recognition for green refrigeration
- ▶ Two award levels: gold & silver
- ▶ Objective criteria for store achievement
  - ▶ Refrigerant charge
  - ▶ Refrigerant leak rate
  - ▶ Type of refrigerants used
- ▶ Process is easy, fast and free
- ▶ See <http://www.epa.gov/greenchill/certcenter.html> for details and guidance



# GreenChill's Certification Program Overview

- ▶ May be re-earned annually
  - ▶ “Continued excellence” awards
  - ▶ May lose certification - reapply in 1 yr.
- ▶ GreenChill may verify the information on your application by
  - ▶ inspecting the store
  - ▶ requesting third party certification
  - ▶ and/or requesting copies of store records related to the certification criteria



# GreenChill's Certification Program Overview

- ▶ Do NOT have to be a GreenChill Partner
- ▶ Only for U.S. stores
- ▶ Only for supermarket-type stores
- ▶ Still a lot of “firsts”
- ▶ Taking suggestions for a good name



# GreenChill's Certification Program

## Criteria for Gold

- ▶ All refrigerants in the store must have zero ozone-depleting potential. No R-22.
- ▶ Refrigerants must be on EPA's SNAP list
- ▶ Reduced refrigerant charge
  - ▶ Max 1.25 lbs. of refrigerant per 1000 BTU/hr. total evaporator cooling load
- ▶ Low leak rate
  - ▶  $\leq 15\%$





# GreenChill's Certification Program

## Criteria for Silver

- ▶ All refrigerants in the store must have zero ozone-depleting potential. No R-22.
- ▶ Refrigerants must be on EPA's SNAP list
- ▶ Reduced refrigerant charge
  - ▶ Max 1.75 lbs. of refrigerant per 1000 BTU/hr. total evaporator cooling load
- ▶ Low leak rate
  - ▶  $\leq 15\%$



# GreenChill's Certification Program Application Process

- ▶ Application forms are on GreenChill's website
  - ▶ Newly constructed stores
  - ▶ Fully operational stores
- ▶ Easy: 1 page – front and back
- ▶ Fast: often same day
- ▶ Free: No application fee, no EPA cost, applicant pays for the plaque



# GreenChill's Certification Program Application Process

- ▶ Can an EPA process be easy?



# GreenChill's Certification Program Award



ADVANCED REFRIGERATION PARTNERSHIP



# Company

– Gold/Silver Level Certification –

**Certified by U.S. EPA's GreenChill Partnership  
for using green refrigeration technology**

Certified through MM/DD/YY

# GreenChill's Certification Program Experience

- ▶ R-22 has ruined many applications from operational stores
- ▶ Charge size is key
- ▶ Emailed applications – I have to be able to read the refrigeration schedule/legend
- ▶ You may have to explain “new and different” equipment to me
  - ▶ “Steering committee” is invaluable



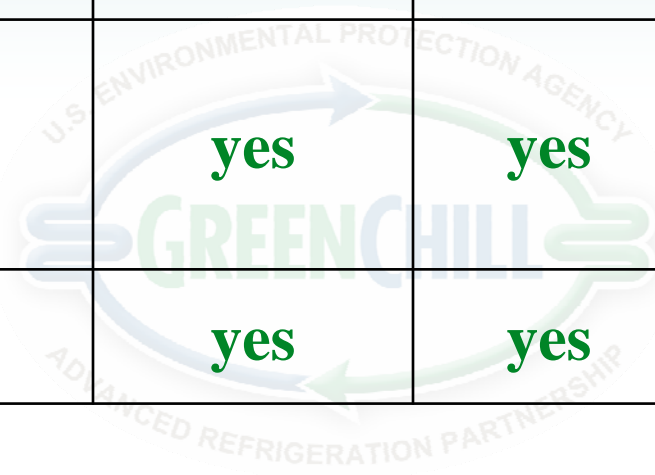
# GreenChill's Certification Program Guidance

- ▶ Step-by-step instructions on the forms
- ▶ Detailed guidance on the website
- ▶ Different equipment is counted in different criteria



# GreenChill's Certification Program Guidance

Included??	BTU Calc.	Refrigerant leaked	Refrigerant Stocked	Non-ozone- depleting Refrigerant	Snap approved refrigerant
Self contained Commercial refrigeration equipment	<b>no</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>
Remote commercial refrigeration equipment	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>	<b>yes</b>
HVAC Equipment	<b>no</b>	<b>no</b>	<b>no</b>	<b>yes</b>	<b>yes</b>





# Special Thanks!

- ▶ Special thanks to the GreenChill partners who helped develop this program:
  - ▶ Jon Perry – Farm Fresh / Supervalu
  - ▶ Scott Martin – Hill Phoenix
  - ▶ Steve Hagler – Hussmann
  - ▶ Buzz Schaeffer – Hussmann
  - ▶ Travis Lumpkin – Kysor Warren
  - ▶ Bruce Hierlmeier – Zero Zone



# Special Thanks!

- ▶ Special thanks to the technical Steering Committee:
  - ▶ Buzz Schaeffer – Hussmann
  - ▶ Travis Lumpkin – Kysor Warren
  - ▶ Scott Martin – Hill Phoenix
  - ▶ David Hinde – Hill Phoenix
  - ▶ Bruce Hierlmeier – Zero Zone



# For More Info

## ▶ **Keilly Witman**

Stratospheric Protection Division, US EPA

Tel: (202) 343-9742

[witman.keilly@epa.gov](mailto:witman.keilly@epa.gov)

[www.epa.gov/greenchill](http://www.epa.gov/greenchill)

