



## *GreenChill Advanced Refrigeration Partnership*



**EPA & the Supermarket Industry:**  
*Partners in Ozone Layer Protection*

# EPA Partnership Programs

- ▶ **More than 80 environmental partnership programs**
- ▶ **Voluntary participation**
- ▶ **No membership fee**
- ▶ **Non-regulatory**
- ▶ **Gives you a friendly face at the EPA**
- ▶ **True partnership attitude – bundling?**



# Supermarket Refrigeration

- ▶ **R-22 is primary refrigerant**
  - ▶ Harms the ozone layer (ODP of .055)
  - ▶ Contributes to climate change (GWP of 1500)
  - ▶ Phase-out in 2010 of R-22 production for new equipment; Limited production allowed until 2020 to service existing refrigeration equipment
- ▶ **DX systems are the dominant technology**
  - ▶ Lg. refrigerant charges (ave. spmkt. = 4000 lbs.)
  - ▶ High leak rates (ave. 20-25% = about 1000 lbs. of refrigerant emitted **PER SUPERMARKET** per year)



# GreenChill Advanced Refrigeration Partnership

- ▶ **An EPA cooperative alliance with the supermarket industry**
- ▶ **Promotes the adoption of advanced refrigeration technologies, strategies, and practices**
- ▶ **Reduce charges & emissions of ozone-depleting substances (potent greenhouse gases)**
- ▶ **Help protect the ozone layer and protect against global warming**



# GreenChill Priorities

- ▶ **Shift from DX systems to advanced refrigeration systems**
- ▶ **Shift from HCFC-22 to substitute refrigerants**
- ▶ **Promote reduced refrigerant charges**
- ▶ **Promote equipment leak tightness**
  - ▶ **At production**
  - ▶ **At installation**
  - ▶ **Preventative maintenance**



# Why advanced refrigeration technology?

- ▶ Montreal Protocol's goal is ozone layer recovery – reduces ozone-depleting substances (CFCs & HCFCs)
- ▶ Substitute refrigerants (HFCs) are ozone-safe, but they are greenhouse gases
- ▶ Leaking 1000 pounds of greenhouse gas instead of 1000 pounds of ozone-depleting gas is substituting one environmental disaster for another



# GreenChill Supermarket Partners



# GreenChill Supermarket Partners

- ▶ Acme Markets
- ▶ Albertsons  
Intermountain West
- ▶ Albertsons/Lucky  
Southern California
- ▶ bigg's
- ▶ Cub Foods
- ▶ Farm Fresh Food &  
Pharmacy
- ▶ Food Lion
- ▶ Giant Eagle
- ▶ Hannaford
- ▶ Harris Teeter
- ▶ Hornbacher's
- ▶ Jewel/Osco
- ▶ Price Chopper
- ▶ Publix
- ▶ Shaw's/Star Markets
- ▶ Shop 'n Save, St. Louis
- ▶ Shoppers Food &  
Pharmacy
- ▶ Supervalu Inc.
- ▶ Whole Foods





# Advanced Refrigeration Systems Manufacturers

**HUSSMANN**<sup>®</sup>



 **KYSOR** // **WARREN**<sup>®</sup>

**Hill PHOENIX**<sup>®</sup>  
E X C E L L E N C E

A **DOVER**<sup>™</sup> COMPANY



# Chemical Manufacturing Partners

**INEOS Fluor**



**Honeywell**



# Benefits of Joining GreenChill

- ▶ **Benchmarking to evaluate progress**
- ▶ **Recognition for actions beyond regulatory requirements**
- ▶ **Build brand equity**
- ▶ **Tools to attain corporate environmental stewardship and sustainability goals**
- ▶ **Prepare for HCFC phaseout and other deadlines**
- ▶ **Access to latest information on state-of-the-art refrigeration technologies, alternative refrigerants, and best practices**
- ▶ **Networking & information sharing among partners**



# Supermarket Partner Responsibilities

- ▶ **Commit to using only non-ozone-depleting refrigerants in both newly constructed stores and major remodels**
- ▶ **Report a baseline of corporate-wide refrigerant stocks and emissions**
- ▶ **Commit to an annual emissions reduction goal**
- ▶ **Develop a corporate Refrigerant Management Plan and emissions reduction strategy**
- ▶ **Report annual aggregate corporate-wide refrigerant stock and emissions**



# Contact Information

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