Outline

► HCFC Phaseout / 2010 Milestone
  • Montreal Protocol and U.S. Clean Air Act
  • HCFC-22 Supply & Demand
  • System Manufacturing & Start-Up
► Pre-Charged Products Ban
► Leak Repair Rule
Montreal Protocol

► International agreement to phase out ozone-depleting substances

► Purpose is to repair & protect the ozone layer
  • Reduces incidences, deaths from skin cancer

► Refrigeration industry has contributed to Protocol’s success
  • Restoring ozone layer; reducing effects of overexposure to UV
  • Significant climate change benefits
HCFC Phaseout Under the MP

Under Montreal Protocol U.S. must reduce HCFC consumption
• Freeze on HCFC consumption started in 1996
• Complete HCFC phaseout in 2030

Major 2007 Adjustment to the Montreal Protocol
• More aggressive 2010 reduction
• Step-down requirements for developing countries
HCFC Phaseout Schedule

ODP-Weighted Metric Tons

Year


Consumption

Today

Cap

65%

25%

10%

0.5%

0
How the U.S. Meets the MP

- Chemical-by-chemical (“worst-first”) phaseout of production and import
  - 2003: HCFC-141b (foams)
  - 2010: HCFC-22, -142b (except for servicing equipment manufactured before 1/1/2010)
  - 2015: Use ban (except refrigeration & AC)
  - 2020: HCFC-22, -142b (except reclaimed)
  - 2030: All HCFC production and import stops
What You Need to Do

- You don’t have to stop using HCFC-22
- Not necessary to replace existing equipment
- Service existing HCFC-22 equipment as usual
- After 2010, supplies of HCFC-22 will be more limited; very tight in 2015
- After 2020, only stockpiled or reclaimed supplies will be available
HCFC-22 Supply and Demand

www.epa.gov/ozone/title6/phaseout/classtwo.html

Source: EPA’s Vintaging Model (VM IO file_2007_11-12-07)
Who Imports/Produces HCFC-22?

- ABCO Refrigeration Supply
- Air Systems
- Altair Industries
- Arkema
- Automatic Equipment Sales of VA
- Condor Products Company, Inc.
- Coolgas Investment Property, LLC.
- Discount Refrigerants
- DuPont Company
- Full Circle
- HG Refrigeration Supply
- Honeywell
- INEOS Fluor
- Kivlan & Co. (Dynatemp)
- Klomar Ship Supply
- MDA Manufacturing
- Mondy-Global
- National Refrigerants
- Refricenter of Miami
- Refricentro
- R-Lines
- Saez
- Solvay Fluorides
- Solvay Solexis, Inc.
- TESCO Distributors
Restrictions on HCFC-22 Use

- HCFC-22 may be produced for use as a refrigerant in equipment manufactured before 1/1/2010
- When is a refrigeration system manufactured?
  - Pre-charged products vs. field-erected systems
  - Refrigerant loop complete?
  - Holds the complete and proper charge?
  - Ready for use for its intended purpose?
  - System started up and operational?
- EPA will issue rule addressing this issue and giving “allocations” for continued HCFC-22 production
  - Expect proposal late 2008
  - Expect final rule summer 2009
Pre-Charged Products Ban

► Clean Air Act restricts imports of HCFCs in bulk – but not after charged into AC & refrigeration equipment

► EPA is proposing to ban:
  • sale & distribution in interstate commerce of
  • all AC & refrigeration equipment containing
  • HCFC-22 and/or -142b

► May include any pre-charged components or stand-alone cabinets you buy

► Proposal under White House (OMB) review
Leak-Repair Rule

Proposed Rule may affect:

• Leak repair trigger rates (today: 35% refrig, 15% AC)
• Verification of repairs (today: 30 days to complete repairs)
• Conversion from ODS to HFC alternatives (must be SNAP acceptable)
• Disposition of recovered refrigerant (no venting ODS or HFCs)
• Full charge determinations
• Conversion checklists
• Record-keeping requirements

Proposal submitted to OMB August 2008
Summary – 3 Rules to Look For

► Allocation Rule
  • Limits on HCFC-22 production and consumption
  • When is a system manufactured?

► Pre-Charged Products Ban
  • Vending machines, stand-alone cabinets, outside AC units, etc.

► Leak-Repair Rule
  • Trigger rates for repair
  • Full charge determination
  • Record keeping requirements

► Proposals expected this year / early next year
Thank You!
Contacts

► Allocation Rule
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► Pre-Charged Products Rule
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► Leak-Repair Rule
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► www.epa.gov/ozone/title6/index.html