

# Shipyard Compliance with EPA's Refrigerant Regulations

**NSRP Environmental Panel Meeting  
Casino Magic Hotel – Biloxi, Mississippi**

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# Potential Penalties for non-compliance

## Wal-Mart Agrees to Pay \$400,000 Fine and Cease Sales of Ozone-depleting Refrigerants

WASHINGTON - The Justice Department has announced a settlement that resolves ozone-depletion violations of the Clean Air Act by various Sam's Club stores in 11 states.

Under the terms of a consent decree that was filed in federal court in Kansas City on January 22, Wal-Mart agreed to pay a \$400,000 civil penalty. In addition, Sam's Club stores nationwide will stop selling refrigerants that contain ozone-depleting substances.

For more on this story link to:

<http://www.viron.com/news/newsissue.asp?record=316>

Source: Capitol Reports Environmental Link

# Potential Penalties for non-compliance

## Earthgrains to Pay \$5.25 Million Penalty and Phase Out Refrigerants That Damage Ozone Layer

**WASHINGTON** - The Department of Justice and the Environmental Protection Agency today announced a settlement that resolves significant ozone-depletion violations that occurred in the United States. With this settlement, the United States has taken a major step in protecting the ozone layer worldwide by eliminating from the earth's atmosphere harmful refrigerants, such as chlorofluorocarbons (CFCs) that leak from industrial appliances and have been a major cause of the depletion of the earth's ozone layer in recent years. The ozone layer protects humans and animals from damaging ultraviolet (UV) rays. Excessive exposure to UV radiation can cause cataracts, skin cancer, and other ailments.

# Potential Penalties for non-compliance

The lodging of the consent decree settles violations of Title VI of the Clean Air Act by Earthgrains Baking Companies, Metz Baking Company, Earthgrains Refrigerated Dough Products, L.P., and Coopersmith, Inc. (collectively Earthgrains). Sara Lee Corporation purchased these companies, which were incorporated into the Sara Lee Bakery Group, during the government's investigation. At the time of the purchase, Earthgrains was the second largest bakery company in the nation.

The settlement requires Earthgrains to pay a \$5.25 million civil penalty for having committed the largest ever corporate-wide violations of stratospheric ozone protection regulations. In addition, Earthgrains must convert all of its industrial process refrigeration appliances to refrigerant systems that do not deplete the ozone layer. EPA estimates that the injunctive relief will cost in excess of \$5 million dollars.

# Background information

**The refrigerant recycling regulations were called for by Congress as part of Title VI of the Clean Air Act Amendments of 1990.**

**Title VI, entitled Stratospheric Ozone Protection, is generally directed toward eliminating the threat posed to the earth's protective stratospheric (or high-level) ozone layer by certain ozone-depleting substances (ODSs).**

**Section 608 of the Act calls on the EPA to publish rules regarding the use, recycling, and disposal of ODSs in various applications, including industrial process and commercial refrigeration systems.**

**In 1987 the United States signed the Montreal Protocol with 22 other countries thereby agreeing to place a limit on the production of CFCs. The protocol calls for a virtual phase out of CFC production by January 1, 1996.**

# Background information

**The CFC refrigerants that will be phased out of production at the end of 1995 include but are not limited to:**

**CFC-11, CFC-12, CFC-13, CFC-113, CFC-114, CFC-115, R-500, R-502, and R-503**

**Two replacements for CFCs will also be phased out over a longer timetable:**

**HCFC-22 for the new equipment in 2010 with total phase out by 2020, and HCFC-123 for the new equipment in 2020 with total phase out in 2030.**

# Legal/regulatory basis for control of ODSs

**Clean Air Act Amendments – Title VI  
Title V Air Pollution Control Permit  
40 CFR Part 82, Subpart F**

# Prohibitions

## No venting

- **Section 608 of the Clean Air Act expressly prohibits individuals from knowingly venting ozone-depleting compounds into the atmosphere while maintaining, servicing, repairing, or disposing of air conditioning or refrigeration equipment. Only three types of releases are permitted under the law:**
  - “de-minimus” releases
  - refrigerants emitted in the course of normal operation of certain equipment (mechanical purge units, etc.)
  - mixtures of nitrogen and R-22 used as holding charges or as leak test gases

**Must use recovery equipment when servicing systems**

**Must register recovery equipment with EPA**

# Required Practices (40 CFR 82.156)

**Must evacuate refrigerant prior to disposal**

**Must evacuate refrigerant prior to opening appliances**

**Must use recovery equipment during servicing**

**Must use recovery equipment IAW Manufacturer's instructions**

**Recovery equipment must be certified by an approved testing organization**

**Must repair all leaks**

# Leak rates

**Technically only applies to units with > 50 lb charge, however . . . . .**

**Trigger rates (all must be “annualized):**

**Commercial refrigeration systems = 35%**

**Industrial process refrigeration systems = 35%**

**All other (comfort cooling) = 15%**

**Calculating a leak rate:**

**$(\text{lbs added} / \text{lbs full charge}) \times (365 / \text{number of days since refrigerant last added})$**

# What if you exceed a leak rate

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## Repair the leak

**within 30 days**

**follow-up verification testing**

## Replace the unit

**develop replacement plan within 30 days**

**replace the unit within 1 year**

# Technician Certification (40 CFR 82.161)

## Technicians must be certified

**Type I certification - certified to maintain, service or repair small appliances.**

**Type II certification - certified to maintain, service, dispose of, or repair high or very high pressure appliances, except small appliances and MVACs.**

**Type III certification - certified to maintain, service, dispose of, or repair low pressure appliances.**

**Universal certification - certified to maintain, service, dispose of, or repair small appliances and high, very high, or low pressure equipment. In essence Type I, II, and III certified.**

# Technician Certification (40 CFR 82.161)

**Authorized representatives of EPA may require technicians to demonstrate proper techniques of equipment servicing**

**Technician certifications may be suspended or revoked for failure to demonstrate proper servicing techniques**

**Need to ensure that technicians are only working on equipment they are certified to work on**

**Technicians must have proof of certification readily available**

# Recordkeeping and reporting requirements (40 CFR 82.166)

**Must show refrigerant vendors proof of certification (remember Wal-Mart case)**

**Must keep records of refrigerant purchases and amounts added to equipment**

**Includes “contractors”**

**Must report leaks which are in excess of “allowable levels”**

# Potential consequences of non-compliance

**Technician certifications may be suspended or revoked**

**Personal liability for technicians**

**“Knowing and willful” violators are subject to fine and/or imprisonment**

**Administrative fines/penalties may be levied against the company**