



# ***U.S. EPA MAC Regulatory Landscape***

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# *Agenda*

1. SNAP MVAC Rule

2. CO<sub>2</sub> and HFC-152a Servicing

3. New Low GWP Refrigerants

4. Section 609 Activities

5. On the Horizon



# ***SNAP MVAC Final Rule***

## ***CO<sub>2</sub> & HFC-152a Acceptability***

- Fall 2006: Proposal published!
- Received comment during public comment period
- Under review at White House/Office of Management and Budget
- Expect final publication by end of summer



# *September 2006 Proposal*

- New CO<sub>2</sub> MVAC systems acceptable with the use condition that systems are designed to avoid concentrations above the CO<sub>2</sub> short term exposure limit (STEL) of 3% averaged over 15 minutes in the passenger cabin free space
- New HFC-152a MVAC systems acceptable with the use condition that systems are designed to avoid concentrations above 3.7% for more than 15 seconds in the passenger cabin free space



# *Proposal – Public Comment*

- Use conditions
  - Free space vs. driver breathing zone
  - Ignition on/off?
- CFD modeling
- New SAE standards
- Risk mitigation strategies



# ***Final Rule: Steps Ahead***

Now

White House  
Office of  
Management  
& Budget  
Review

End of Summer

Final Rule  
Publication



# ***CO<sub>2</sub> and HFC-152a Servicing***

- Reference SAE service standards that are currently under development
  - CO<sub>2</sub> charging
  - HFC-152a recovery and recycling?
- Venting of CO<sub>2</sub>
- If necessary, address odorized CO<sub>2</sub> issues



# ***New Low GWP Refrigerants***

- SNAP has not received a complete submission for any of these refrigerants
- New chemical alternatives must undergo review under both section 612 and section 5 of Toxic Substances Control Act (TSCA)
- EPA's 90-day review period for SNAP submissions would begin once EPA receives a complete submission





# ***New Low GWP Refrigerants***

## ***SNAP submission requirements***

- Physical & chemical properties
  - ODP, GWP, flammability
  - Materials compatibility
- Cardiosensitization study
- Occupational exposure during end-use
- Consumer exposure
- General population exposure



# ***SNAP Approval Timing***

- EPA's 90-day review period for SNAP submissions would begin once EPA receives a complete submission
- Previous SNAP approvals have taken as little as 90 days
- HFC-152a & CO<sub>2</sub> has taken longer for a couple of reasons



# *Section 609 Activities*

- Updating Section 609 approved refrigerant handling machines SAE standard reference
  - HFC-134a recovery only
  - HFC-134a R/R/R
- Current EPA 609 regulations reference a SAE standard that will be obsolete after Dec 2007
- New machines provide 10 – 30% improvement in refrigerant recovery
- Anticipate grandfathering old machines



# *609 Final Rule: Steps Ahead*

Now

EPA  
Office of  
Policy  
Review

End of Summer

Final Rule  
Publication



# ***Revising 609 Regulatory Impact Analysis***

- Reviewing impact of current regulatory requirements and any future updates
- Updating assumptions to best available information, particularly the SAE I-MAC CRP
- Coordinating and discussing with California and EU colleagues
- Welcome input from others!



# ***Revising 609 Regulatory Impact Analysis***

- Review of SNAP MVAC acceptable list
- Update Section 609 technician training & testing
- Revisit currently approved Section 609 technician certification programs



# **609 Enforcement**

- Cal EPA/US EPA cooperation
- Series of inspections scheduled this week...west of the Mississippi



# *Disposable Containers*

- Disposable containers report complete
  - <http://epa.gov/ozone/title6/609/index.html#reports>
  - 30 lb cylinder heel
  - Small can heel
- Identified best practices
- ARPI membership agreement





# *On the Horizon*

- Provisions for new low GWP refrigerant servicing
- Address leak detection
- Hose fittings/couplings
- Continued cooperation within EPA and with California, EU and others!



## ***For Additional Information***

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