

# *Proposed Amendments to the Dry Cleaning Regulation*

*January 25, 2007*

California Environmental Protection Agency

Air Resources Board



# *Agenda*

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- **Background**
- **Proposed Regulation**
- **Benefits and Impacts**
- **Key Issues**
- **Next Steps**
- **Recommendations**



# Background



# *Perc Regulatory Efforts*

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- **ARB identifies Perc as a toxic (1991)**
- **ARB adopts control measures:**
  - ⇒ **Dry Cleaning (1993)**
  - ⇒ **Aerosol Adhesives (2000)**
  - ⇒ **Automotive Products (2000)**
  - ⇒ **Consumer Products (2004)**
  - ⇒ **Consumer Products (2006)**
- **Districts adopt degreasing rules (1990s)**
- **SCAQMD Dry Cleaning Rule (2002)**



# *Perc Regulatory Efforts*

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- **Evaluation began in 2003**
- **Technical Assessment Report in February 2006**
- **Proposed Amendments in May 2006**
  - ⇒ **Did not proceed with the proposed rulemaking**
  - ⇒ **Directed staff to develop new proposal to phase out Perc**



# *Dry Cleaning Industry*

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- **About 3,400 Perc facilities statewide**
- **Small businesses; owner-operated**
  - ⇒ 85% less than five employees
  - ⇒ 92% operate a single machine
  - ⇒ Operate on small profit margin
- **Often located near residences**
- **About 50 are co-residential facilities**



# Market Share of Perc Machines

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Types of Dry Cleaning Machines	Estimated Number of Machines (2003)*	Estimated Number of Machines (2006)*	Market Share (2003)	Market Share (2006)
Perc	4670	3660	86%	70%
Non-Perc	770	1550	14%	30%

\* Values rounded to the nearest 10



# Market Share of Dry Cleaning Alternatives

Type of Dry Cleaning Machine	Number of Machines (2006)*	Percent of Market Share (Total)
Perc	3660	70%
Hydrocarbon	1100	21%
GreenEarth®	190	4%
Water Based Cleaning Systems	170	3%
Carbon Dioxide	10	<1%
Others	80	2%

\* Values rounded to the nearest 10





# Updated Machine Costs

Type of Dry Cleaning Machine	Installation Cost	List Price of Machines (2006)*
Perc (secondary)	\$3,800	\$50,000
Hydrocarbon	\$4,300	\$68,000
GreenEarth®	\$4,300	\$68,000
Professional Wet Cleaning Systems	\$3,800	\$51,000
Carbon Dioxide	\$48,800	\$143,000

\* Values rounded



# *Annual Cost Comparison*

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Type Technology Chosen	Total Annual Cost <sup>1</sup>
Perc (secondary)	\$7,300
Hydrocarbon	\$11,400
GreenEarth <sup>®</sup>	\$11,400
Professional Wet Cleaning	\$8,300
Carbon Dioxide	\$35,000

<sup>1</sup> Based on a 5 year loan at an interest rate of 10 percent



# Summary of the Proposed Regulation



## ***Key Considerations***

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- **Affect facilities outside the South Coast AQMD**
- **Phase out Perc in dry cleaning operations**
- **Eliminate use of Perc machines at co-residential and new facilities**
- **Reduce risk at existing facilities**
- **Consider economic impacts**



# *Emissions*

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- **1,980 facilities outside South Coast with 2,120 Perc machines**
  
- **Emissions (2006)**
  - ⇒ **1.8 tons/day outside South Coast**
  - ⇒ **3.0 tons/day Statewide**



# ***New Facilities***

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## **Proposed Action:**

- **Prohibit new Perc machines beginning January 2008**

## **Results:**

- **No potential health risk due to Perc emissions from new dry cleaning facilities**



# *Existing Facilities*

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## **Proposed Action:**

- **Prohibit new Perc machines beginning January 2008**
- **Remove existing Perc machines beginning July 2010**
- **No Perc machines by January 2023**

## **Results:**

- **Eliminates sources of potential health risk due to long-term Perc exposure**



# *Co-Residential Facilities*

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## **Proposed Action:**

- **Remove existing Perc machine by July 2010**

## **Results:**

- **Eliminates potential source of high localized risk**





# *Other Requirements*

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- **Good operating practices**
- **Recordkeeping**
- **Reporting**



# ***Requirements for Perc Manufacturers and Distributors***

## **Proposed Action:**

- **Recordkeeping and reporting**
  - ⇒ **Gallons of Perc sold**
  - ⇒ **Contact information**

## **Results:**

- **Better accountability**
- **Improved enforcement**
- **Reliable tracking**



# Benefits and Impacts of the Proposed Regulation



## ***Benefits of Proposed Action***

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- **Potential health risk to near zero at new facilities by 2008**
- **Potential health risk to near zero at co-residential facilities by 2010**
- **Potential health risk to near zero at existing facilities by 2023**



## ***Cost of Amendments***

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- **Statewide implementation cost is \$41 million over 15 years**
- **Typical after tax profit of \$3,300**
- **Typical annual cost is between \$8,300 to \$11,400 per year for 5 years**
- **To recover costs, a dry cleaning bill of \$15 would increase by \$1.20 to \$1.60**



# Key Issues



# ***Accelerated Phase Out of Existing Machines by 5 Years***

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## **Issues:**

- **Useful life of machines (10 year versus 15 year)**
- **Accelerated phase out of machines by 5 years**
- **Provide additional risk reduction**



# ***Accelerated Phase Out of Existing Machines by 5 Years***

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## **Impacts:**

- **Increased cost to individual dry cleaners up to \$16,700**
- **Typical after tax profit of \$3,300**
- **Data supports a 15 year useful life**





# ***Accelerated Phase Out of Existing Machines by 5 Years***

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## **Impacts:**

- **Impacts South Coast AQMD dry cleaners**
- **Number of machines that removed by 2010 increase from 660 to 2,120**
- **Statewide implementation cost increase from \$41 million to \$108 million**
- **Availability of machines, product support, and training for alternative technologies**



# *Prohibit New HC Machines*

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## **Issue:**

- **Prohibit new HC machines because of impacts on smog**



## ***Prohibit New HC Machines***

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### **Impacts:**

- **HC machine is the most common alternative**
- **Market share of all other available alternatives total about 5 percent**
- **Impacts South Coast dry cleaners**
- **Increase state implementation cost from \$41 million to \$82 million**
- **HC emissions increase fairly small (~0.7 ton/day outside of South Coast)**



## ***300 Foot Buffer Zone***

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### **Issues:**

- **Require 300 foot buffer zone from residences, sensitive receptors, and businesses by 2010**
- **Provides greater health protection**



## ***300 Foot Buffer Zone***

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### **Impacts:**

- **Essentially a Ban on Perc by 2010**
- **About 98% of dry cleaning businesses are located near business.**
- **About 64% of dry cleaning businesses are located within 300 feet of a residence.**
- **Increase state implementation cost from \$41 million to \$131 million**
- **Hot Spots Program can be used**



## *Other Comments*

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### **Issues:**

- **Alternative machines not feasible**
- **Financial assistance important**
- **No justification for phasing out Perc**
- **Longer phase-out periods needed**



# ***Proposed 15-day Modification***

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- **Remove the penalty provisions from sections 93109, 93109.1 and 93109.2**



# Next Steps





# ***Environmental Training Program ATCM***

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- **Update ARB's training curriculum to reflect the proposed ATCM changes**
- **Notify certified trainers to begin using the updated curriculum effective January 1, 2008**
- **Send an advisory informing Dry Cleaning Industry of the changes to the training curriculum**



# ***AB 998 Program***

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- **Encourage use of non-toxic, non-smog forming alternatives (water-based, CO2)**
- **Grant Program**
- **Demonstration Program**
- **Fee collection issues**



# ***AB 998 Grant Program***

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- **Began in 2004**
- **Over 90 pre-approved applications**
- **23 applicants installed equipment**
- **Switched to continual application process in 2007**



# ***AB 998 Demonstration Program***

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- **Insufficient funding (2004-2005)**
- **Two proposals submitted**
- **Final approvals near completion**
- **Two year projects**
- **23 sites**



# Recommendations



# *Recommendation*

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- **Adopt the proposed regulatory amendments, with proposed 15 day changes.**

