



Air Pollution Control Board
Greg Cox District 1
Dianne Jacob District 2
Pam Slater District 3
Ron Roberts District 4
Bill Horn District 5

Air Pollution Control Officer
R. J. Sommerville

NOTICE OF WORKSHOP

TO DISCUSS THE IMPLEMENTATION OF THE AIRBORNE TOXIC CONTROL MEASURE FOR EMISSIONS OF PERCHLOROETHYLENE FROM DRY CLEANING OPERATIONS

The San Diego County Air Pollution Control District will hold a public meeting to discuss the implementation of the Airborne Toxic Control Measure (ATCM) for emissions of perchloroethylene (perc) from dry cleaning operations. Comments concerning the implementation of the ATCM may be submitted in writing before, or made at, the workshop which is scheduled as follows:

DATE: February 7, 1996 - Wednesday
TIME: 9:00 a.m. to 12:00 noon
PLACE: Farm Advisor Conference Room
County Operations Center - Building 14
5555 Overland Drive
San Diego, CA

The California Health and Safety Code requires the state Air Resources Board (ARB) to identify toxic air contaminants and subsequently adopt regulations to control their emissions. Perc has been identified by ARB as a toxic air contaminant without a minimum exposure level below which no significant adverse health effects are expected. The law requires the emissions of such toxic air contaminants be reduced to the lowest level achievable through the application of Best Available Control Technology (BACT) or any other equal or more effective control method.

In October 1993, ARB adopted an ATCM to regulate emissions of perc from dry cleaning operations. The District will implement and enforce the requirements of this ATCM without formally adopting a specific rule, as allowed by state law and in accordance with procedures approved by the Air Pollution Control Board on July 25, 1995.

The purpose of this workshop is to discuss the ATCM for dry cleaning operations and its requirements, and to respond to questions and comments.

The ATCM applies to all perc dry cleaning facilities, regardless of annual throughput. It establishes equipment requirements for new and existing facilities, good operating practices, equipment testing requirements, operator training requirements, and recordkeeping and reporting requirements. These requirements are briefly summarized below.

EQUIPMENT REQUIREMENTS

- All new facilities which commence operation after April 1, 1996 must install a closed-loop machine equipped with a refrigerated condenser and a secondary control device. A closed-loop machine is dry cleaning equipment in which washing, extraction and drying are all performed in the same single unit and which recirculates perc-laden vapor through a refrigerated condenser, or equivalent control system, with no exhaust to the atmosphere during the drying cycle.

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A secondary control device is typically a carbon adsorber which is either built into the dry cleaning machine as an option or retrofitted into the dry cleaning machine later. Perc vapors are routed from the drum and button and lint traps through the carbon adsorber. The air is then recirculated back through the drum and traps to pick up more residual perc vapors. During this time, there is no venting to the atmosphere. Secondary control devices generally operate in series after the refrigerated condenser and are usually activated at the end of the cool down step. They usually add five to ten minutes to the length of the drying cycle. The secondary control devices significantly reduce perc concentrations in the drum and, therefore, reduce fugitive emissions and perc consumption.

- All new facilities which commenced operation after October 1, 1994 but before April 1, 1996 must install a closed-loop machine equipped with a refrigerated condenser or an equivalent control system. Secondary controls are not required at these facilities.
- All existing facilities (in operation prior to October 1, 1994) that operate a vented dry-to-dry machine must either convert the machine to closed-loop (by retrofitting the machine with a non-vented refrigerated condenser) by April 1, 1996 or replace the entire machine with a closed-loop machine equipped with a refrigerated condenser by October 1, 1998. Secondary controls are not required at these facilities. A vented dry-to-dry machine is dry-cleaning equipment in which washing, extraction, and drying are all performed in a single unit and in which fresh air is introduced into the drum in the last step of the drying cycle and exhausted to the atmosphere, either directly or through a control device.
- All existing facilities that operate a transfer machine must replace the entire machine with a closed-loop machine equipped with a refrigerated condenser by October 1, 1998. Secondary controls are not required at these facilities. A transfer machine is a combination of dry cleaning equipment in which washing and extraction are performed in one unit and drying is performed in a separate unit.

GOOD OPERATING PRACTICES

- All facilities must complete daily an Operation and Maintenance (O&M) Checklist. The checklist format developed by the District is attached. Facilities should begin using the O&M Checklist upon receipt of this Workshop Notice.
- All facilities must conduct a weekly perc leak check and complete a Leak Inspection Checklist. The weekly checklist format developed by the District is attached. Facilities should begin using the Leak Inspection Checklist upon receipt of this Workshop Notice. After April 1, 1996 facilities must use a halogenated hydrocarbon detector or portable gas analyzer to identify vapor leaks. Until then, facilities may check for "perceptible" vapor leaks by the odor of perc or the detection of gas flow by passing fingers over the surface of the system.

EQUIPMENT TESTING

- Manufacturers of dry cleaning machines equipped with secondary control devices (required only at facilities which commence operation after April 1, 1996), primary emission control devices other than refrigerated condensers, or emission control devices on drying cabinets are required to test the control equipment and submit the test results to ARB for review. ARB will "pre-certify" equipment which meets the Airborne Toxic Control Measure requirements.

OPERATOR TRAINING

- All dry cleaning facilities must have at least one full-time employee who has successfully completed an ARB approved environmental training course. The training course is not yet available in San Diego County. Operators at existing facilities must complete the course within six months after the District determines that the course is reasonably available. Operators at new facilities must complete the course within three months of startup. If the course is not available to a new facility, then the District may extend the deadline to one month after the course becomes available. The District will advise dry cleaning facilities when the training course is available in San Diego County.
- Each trained operator must successfully complete a refresher course every three years.

RECORDKEEPING AND REPORTING

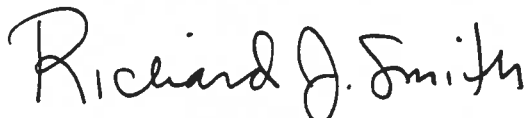
- The following records must be completed and kept on site for two years or until the next District inspection, whichever period is longer:
 - logs showing the date and the pounds of material cleaned per load,
 - perc purchase and delivery receipts,
 - completed O&M Checklists,
 - completed Leak Inspection Checklists,
 - records of leaking components awaiting repair and actions taken to complete repair,
 - original record of training course completion for operator(s), and
 - for equipment installed after October 1, 1994, a copy of the equipment manufacturer's operating manual

These records must be provided to the District upon request.

- If requested by the District, the owner or operator must submit an annual report which includes a copy of the record of training course completion for each required trained operator, the total amount of materials cleaned, the total amount of perc added and the average facility perc mileage (total amount of materials cleaned/total perc consumption for the reporting period).

In addition to being regulated by the ATCM as a toxic air contaminant, perc is currently regulated as a volatile organic compound (VOC) by District Rule 67.8 (Dry Cleaning Facilities Using Halogenated Organic Solvent). The District will continue to enforce Rule 67.8 until October 1, 1998 at which time all dry cleaning facilities must be in compliance with the ATCM. Rule 67.8 will then be repealed and dry cleaning facilities will be subject only to the ATCM.

If you would like a copy of the ATCM adopted by the California Air Resources Board, please contact Juanita Ogata at (619) 694-8851. If you have any questions concerning the requirements of the ATCM or its implementation, please contact me at (619) 694-3303 or Natalie Zlotin at (619) 694-3312.



RICHARD J. SMITH
Deputy Director

RJSm:NZ:jo
12/20/95

OPERATION AND MAINTENANCE CHECKLIST FOR CLOSED LOOP MACHINE WITH REFRIGERATED CONDENSER

COMPONENT	O&M REQUIREMENT	DATE FOR MONTH OF: 19__						
		1	2	3	4	5	6	7
REFRIGERATED CONDENSER	Air outlet temperature at or below 45°F during cool-down (record temperature)							
BUTTON & LINT TRAPS	Cleaned each day and lint placed in tightly sealed container							
DOORS & ACCESS PANELS	Kept closed at all times except when required for proper O&M							
WASTEWATER EVAPORATOR (if applicable)	Operated to ensure that no liquid PERC is vaporized (if liquid PERC is present, decant off PERC portion and return it to still)							
CARTRIDGE FILTERS (if applicable)	Drained in their housing for 24 hours (standard) or 48 hours (adsorptive), prior to being replaced							
	Placed in sealed hazardous waste containers after being drained or, if applicable, dried, stripped, or otherwise treated in a closed system to reduce the volume of PERC prior to disposal							
STILL & MUCK COOKER	Do not exceed 75% of capacity							
	Cooled to 100°F or less before being emptied or cleaned (record temperature)							

SOLVENT MILEAGE	Total pounds of clothes cleaned per day:							
	Total gallons of PERC added per day:							
	Total pounds of clothes cleaned month-to-date:							
	Total gallons of PERC added month-to-date: Tank reading on first day of month: <input type="text"/>							

COMPONENT	O&M REQUIREMENT	DATE FOR MONTH OF: 19__						
		8	9	10	11	12	13	14
REFRIGERATED CONDENSER	Air outlet temperature at or below 45°F during cool-down (record temperature)							
BUTTON & LINT TRAPS	Cleaned each day and lint placed in tightly sealed container							
DOORS & ACCESS PANELS	Kept closed at all times except when required for proper O&M							
WASTEWATER EVAPORATOR (if applicable)	Operated to ensure that no liquid PERC is vaporized (if liquid PERC is present, decant off PERC portion and return it to still)							
CARTRIDGE FILTERS (if applicable)	Drained in their housing for 24 hours (standard) or 48 hours (adsorptive), prior to being replaced							
	Placed in sealed hazardous waste containers after being drained or, if applicable, dried, stripped, or otherwise treated in a closed system to reduce the volume of PERC prior to disposal							
STILL & MUCK COOKER	Do not exceed 75% of capacity							
	Cooled to 100°F or less before being emptied or cleaned (record temperature)							

SOLVENT MILEAGE								
Total pounds of clothes cleaned per day:								
Total gallons of PERC added per day:								
Total pounds of clothes cleaned month-to-date:								
Total gallons of PERC added month-to-date:								

FOR FOSTER FOODS WASHING MACHINES ONLY
 OPERATOR AND MAINTENANCE CHECKLIST

COMPONENT	O&M REQUIREMENT	DATE FOR MONTH OF: 19__												
		22	23	24	25	26	27	28	29	30	31			
REFRIGERATED CONDENSER	Air outlet temperature at or below 45°F during cool-down (record temperature)													
BUTTON & LINT TRAPS	Cleaned each day and lint placed in tightly sealed container													
DOORS & ACCESS PANELS	Kept closed at all times except when required for proper O&M													
WASTEWATER EVAPORATOR (if applicable)	Operated to ensure that no liquid PERC is vaporized (if liquid PERC is present, decant off PERC portion and return it to still)													
CARTRIDGE FILTERS (if applicable)	Drained in their housing for 24 hours (standard) or 48 hours (adsorptive), prior to being replaced													
	Placed in sealed hazardous waste containers after being drained or, if applicable, dried, stripped, or otherwise treated in a closed system to reduce the volume of PERC prior to disposal													
STILL & MUCK COOKER	Do not exceed 75% of capacity													
	Cooled to 100°F or less before being emptied or cleaned (record temperature)													

SOLVENT MILEAGE	DATE FOR MONTH OF: 19__										MONTHLY TOTAL	
Total pounds of clothes cleaned per day:												
Total gallons of PERC added per day:												
Total pounds of clothes cleaned month-to-date:												
Total gallons of PERC added month-to-date:												

Tank reading on first day of month: C

Tank reading on last day of month: D

PERC consumption this month (E) = Total solvent added (B) + tank reading on 1st day (C) - tank reading on last day (D) = E

Note: Carry over values in A, B, C, D, and E to the annual solvent mileage log sheet

ANNUAL SOLVENT MILEAGE LOG*

MONTH	A TOTAL POUNDS OF CLOTHES CLEANED	B TOTAL GALLONS OF PERC ADDED	C TANK READING ON 1ST DAY	D TANK READING ON LAST DAY	E PERC CONSUMPTION

ANNUAL TOTALS

$$\frac{\text{TOTAL POUNDS CLEANED}}{\text{TOTAL PERC CONSUMPTION}} =$$

$$\text{AVERAGE ANNUAL SOLVENT MILEAGE} =$$

* OBTAIN VALUES FOR COLUMNS A, B, C, D, AND E FROM DAILY O&M CHECKLISTS

**PERC DRY CLEANING
WEEKLY LIQUID LEAK AND VAPOR LEAK INSPECTION CHECKLIST**

VAPOR DETECTOR USED*: _____
 DATE PERFORMED: _____
 PERFORMED BY: _____

COMPONENT	IS THERE A LEAK?		PARTS ORDERED (Date or "NONE")	PARTS RECEIVED (Date)	PARTS INSTALLED (Date)	REPAIR COMPLETED (Date)
	YES	NO				
Hose and Pipe connections						
Fittings						
Couplings						
Valves						
Pumps						
Door Gaskets and Seating						
Filter Gasket and Seating						
Solvent Tank						
Solvent Containers						
Water Separator						
Muck Cooker						
Still						
Exhaust Damper						
Diverter Valve						
Cartridge Filter Housing						
Lint Basket						
Lint Storage Containers						
Button Trap						

- * AFTER APRIL 1, 1996 A HALOGENATED-HYDROCARBON DETECTOR OR A PORTABLE GAS ANALYZER MUST BE USED TO DETECT VAPOR LEAKS.
- LEAKS MUST BE REPAIRED WITHIN 24 HOURS UNLESS PARTS MUST BE ORDERED
- PARTS MUST BE ORDERED WITHIN TWO WORKING DAYS OF DETECTION OF LEAK
- ORDERED PARTS MUST BE INSTALLED WITHIN FIVE WORKING DAYS AFTER RECEIPT
- A FACILITY WITH A LEAK THAT HAS NOT BEEN REPAIRED AFTER THE END OF THE 15 TH WORKING DAY AFTER DETECTION SHALL NOT OPERATE THE DRY CLEANING EQUIPMENT, UNTIL THE LEAK IS REPAIRED, WITHOUT A LEAK-REPAIR EXTENSION FROM THE APCD.