Category: 22 – Dry Cleaning

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

DATE: August 4, 1980

SUBJECT: Issues Concerning VOC RACT II Regulations Development

FROM: G. T. Helms, Chief
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TO: Steve Rothblatt, Chief
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This is in response to your earlier memorandum concerning issues related to VOC RACT II regulations development. The issues will be addressed in the order they were listed in the "Attachment A" of your memorandum.

1. Perchloroethylene Dry Cleaning Systems

The inclusion of an exemption for dry cleaning facilities processing less than a certain amount of clothes per day (i.e., 25 lbs. of clothes/day) appears acceptable if the State can document the effect on emissions. The CTG recommended that facilities with either insufficient steam capacity or inadequate space be exempted from the installation of a carbon adsorber.

The CTG indicates that the emission losses from an uncontrolled commercial cleaner is 10-12 kg of VOC/100 kg of clothes processed. This emission factor includes emissions related to good housekeeping, treatment of filters, dryer vents, etc. Of this amount, 5 kg VOC could be controlled by the addition of a carbon adsorber on the dryer. This emission factor (.05 kg VOC/kg clothes processed) could be used to estimate the effect of an exemption for the adsorber requirement only. Other requirements in the CTG must be met.

2. Miscellaneous Metal Parts and Products

A contractor study conducted for DSSE provided the following information on emissions and facilities affected vs. size cutoff for this category:

	Percent of total VOC - %		Percent of Establishments- %	
Exemption	Not Controlled	Controlled	Not Controlled	Controlled
10 T/yr	14	86	86	14
20 T/yr	21	79	91	9
30 T/yr	25	75	93	7

These figures are based on a national study and may not be applicable for all local situations. Within the above range, the State might consider an exemption level. Any exemption would require documentation of its effect on emissions.

(a) Intermittent Coating Operations

Blanket exemptions for facilities doing intermittent coating is inappropriate. However, a size cutoff as discussed above may be considered.

(b) Extension of Compliance Dates

Current policy requires compliance dates by 1982. In the case of technology forcing low solvent coating development, additional time may be allowed provided the conditions listed in the graphic arts compliance schedule memorandum are addressed. (See Rhoads' memo of April 25, 1980, "Compliance Schedules for Low Solvent Technology Programs for the Graphic Arts CTG Category.") The small coaters should benefit from technology developed by the suppliers and their large customers.

(c) Coating Limitations for Large Metal Products

The exemption for ships and airplanes was included in the sample regulation because of the special coating requirements and the lack of reasonably available control technology. There have been recent improvements in airplane coating operations as the industry is changing to low solvent coatings and higher transfer efficiency. For the other operations listed in our memo, i.e., trailers, box cars, bulldozers, school buses, etc., low solvent coatings are available. A blanket exemption for these operations would be inappropriate.

3. Transfer Efficiency

Transfer efficiency has been widely accepted as an appropriate emission reduction technique only for automobile and light duty trucks. ESED is writing a memo to cover transfer efficiency for large appliances and metal furniture. Copies will be sent to all Regional Offices when finalized. Transfer efficiency allowances cannot be extended to other categories unless the State can justify a baseline transfer efficiency for their RACT emission limits.

4. Synthesized Pharmaceutical Products

Surface condensers, such as the shell and tube type, should not be used where the gas stream contains appreciable water unless provisions are made to remove water vapor from the gas stream prior to introduction into the surface condenser. In situations where the gas streams from process equipment contain water, a double pass, finned tube heat exchanger (similar to that used in the Edwards vapor recovery units for gasoline vapor control) could be used for control. In this type of equipment, water freezes on the finned tubes and the unit must be periodically defrosted. Water and VOC drain into a gravity separation sump where VOC separates from the water and may be drained off for recovery. Distillation may be required if the solvent is miscible in water.

RACT should not be set at the freezing temperature of water for gas streams containing water. VOC in the gas stream may not be effectively controlled in this situation.

(a) 90 percent Control for VOC Emissions

It is impossible that, in some instances, a case-by-case determination for the RACT percentage control may be necessary where mixtures of VOCs occur. In these instances, the plant must provide justification to the satisfaction of the State that a different RACT percentage control is necessary.

5. Pneumatic Rubber Tire Manufacture

There is no change in policy concerning the direction of rulemaking for the pneumatic rubber tire manufacturing category. Rubber tire regulations should be addressed on a plant-by-plant basis.

Should you have any questions concerning this memorandum, please contact Bill Polglase (FTS 629-5251) or Tom Williams (FTS 629-5226).