Emission Limitations

1. The permittee shall ensure that the Trichlorethylene monthly emissions from the solvent cleaning machine do not exceed the 3-month rolling average limit of 150 kilograms/square meter/month.

Monitoring And Reckordkeeping

1. The permittee shall maintain a log of solvent additions and removals for the solvent cleaning machine.

2. The permittee shall demonstrate compliance with the 3-month rolling average monthly emissions of less than or equal to 150 kilograms/square meters/month on a monthly basis as follows:

   a. The permittee shall, on the first operating day of every month, ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent and used solvent that has been cleaned of soils. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill-line each month, immediately prior to calculating monthly emissions. The solvent cleaning machine does not have to be emptied and filled with fresh unused solvent prior to the calculations.

   b. The permittee shall on the first operating day of the month comply with the following:

      I. Using the records of solvent additions and removals for the previous monthly reporting period, determine Trichlorethylene emissions using the appropriate equation specified in the "Testing Requirements" section of this permit.

      ii. Determining the total amount of Trichlorethylene removed from the solvent cleaning machine in solid waste during the most recent monthly reporting period (kilograms of solvent per month) as specified in the "Testing Requirements" section of this permit.

      iii. Determining the monthly rolling average for the 3-month period ending with the most recent reporting period using the appropriate equation specified in the "Testing Requirements" section of this permit.

3. The permittee shall maintain the following records either in electronic or written form for a period of five years:

   a. The dates and amounts of Trichlorethylene that are added to the solvent cleaning machine.

   b. The Trichlorethylene composition of wastes removed from the cleaning machines using the procedures described in the "Testing Requirements" section of this permit.

   c. Calculation sheets showing how the monthly emissions and the rolling 3-month average emissions of Trichlorethylene from the solvent cleaning machine were determined, and the results of all calculations.

Reporting Requirements

1. The permittee shall submit an initial statement of compliance no later than 150 days after

December 2, 1997. Each initial statement of compliance shall contain the following:

a. The name and address of the permittee of the solvent cleaning machine.

b. The address (i.e., physical location) of the solvent cleaning machine.

c. The solvent/air interface area for the solvent cleaning machine.

d. The results of the first 3-month average of Trichlorethylene emission calculations.

3. The permittee shall submit an annual solvent emission report by February 1 of each year. The report shall cover the previous calendar year. The report shall contain the following:

a. The size (solvent/air interface area) and type of the solvent cleaning machine.

b. The average monthly Trichlorethylene consumption for the solvent cleaning machine in kilograms per month.

c. The 3-month monthly rolling average Trichlorethylene emissions estimates calculated each month using the method as described in the "Testing Requirements" section of this permit.

4. The permittee shall submit an exceedance report on a semiannual basis. If the Trichlorethylene three-month rolling average of 150 kilograms/square meter/month is exceeded, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (appropriate District Office or local air agency). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant recordkeeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (appropriate District Office or local air agency) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of Subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:

a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.

b. If no exceedance has occurred, a statement to that effect shall be submitted

<u>Testing Requirements</u>

1. The permittee shall on the first operating day of every month:

a. Ensure that the solvent cleaning machine system contains only clean liquid solvent. This includes, but is not limited to, fresh unused solvent, recycled solvent and used solvent that has been cleaned of soil. A fill line must be indicated during the first month the measurements are made. The solvent level within the machine must be returned to the same fill line each month, immediately prior to calculating monthly emissions as specified in paragraph (1) (b) below. The solvent cleaning machine does not have to be emptied and

filled with fresh unused solvent prior to the calculations.

b. Comply with the following requirements:

i. Using the records of all solvent additions and removals for the three previous monthly reporting periods required in the "Monitoring and/or Record keeping Requirments" section of this permit, determine solvent emissions (Ei) using equation (1) below for cleaning machines with a solvent/air interface and equation (2) below for cleaning machines without a solvent/air interface:

Ei = (SAi-LSRi-SSRi)/AREAi ...(1)

En = SAi-LSRi-SSRi .....(2)

Where:

Ei = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per square meter of solvent/air interface are per month).

En = the total halogenated HAP solvent emissions from the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month).

SAi = the total amount of halogenated HAP liquid solvent added to the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month).

LSRi = the total amount of halogenated HAP liquid solvent removed the solvent cleaning machine during the most recent monthly reporting period i (kilograms of solvent per month).

SSRi = the total amount of halogenated HAP liquid solvent removed from the solvent cleaning machine in solid waste, obtained as described below in paragraph (b) of this section, during the most recent monthly reporting period i (kilograms of solvent per month).

AREAi = the solvent /air interface area of the solvent cleaning machine (square meters).

ii. Determine SSRi from tests conducted using reference method 25d or from engineering calculations included in the compliance report.

iii. Determine the monthly rolling average EA for the 3-month period ending with the most recent reporting period using equation (3) for cleaning machines with a solvent/air interface or equation (4) for cleaning machines without a solvent/air interface.

EAi=(☐Ei)/3, where the summation is from j=1 to j= 3 .... (3)
EAn=(☐En)/3, where the summation is from j=1 to j=3 .... (4)

Where:

EAi = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area per month).

EAn = the average halogenated HAP solvent emissions over the preceding 3 monthly reporting periods (kilograms of solvent per month).

Ei = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per square meter of solvent/air interface area per month).

En = halogenated HAP solvent emissions for each month (j) for the most recent 3 monthly reporting periods (kilograms of solvent per month).

j=1 = the most recent monthly reporting period.
j=2 = the monthly reporting period immediately prior to j=1.
j=3 = the monthly reporting period immediately prior to j

2. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:

   a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTEi = Hi \times Wi \times SAIi$$

Where:

PTEi = the potential to emit for the solvent cleaning machine i (kilograms solvent per year).

Hi = hours of operation for solvent cleaning machine i (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

Wi = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

SAIi= solvent/air interface area of solvent cleaning machine i (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

SAI = 2.2 * (Vol)^0.6

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

c. Sum the PTEi for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.