Facility Name: **Russell Products Company, Inc**
Application Number: **16-1847**
Date: **April 21, 1999**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as

an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

BEST AVAILABLE TECHNOLOGY

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

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Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements

AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Russell Products Company, Inc** located in **Summit** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio EPA Source Number	Source Identification Description	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
L002	Batch open top vapor degreaser	Compliance with state and federal rules dealing with the operation of vapor degreasers.	3745-31-05	3.1 TPY TCE
			3745-21-09 (O)	See Additional Special Terms and Condition
			40 CFR 63 Subpart T	150 kilograms TCE per square meter per month. 30.72 pound/ft^2/month

SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons/Year
Trichloroethylene	3.1

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Akron Regional Air Quality, 146 South High Street, Room 904, Akron, OH 44308.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Akron Regional Air Quality, 146 South**

High Street, Room 904, Akron, OH 44308.

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

BAT FOR OPEN TOP VAPOR DEGREASERS

In accordance with OAC Rule 3745-21-09(0)(3), each owner or operator of an open top vapor degreaser shall:

a. equip the open top vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;

b. install the following safety switches:

   1. a condenser flow switch and thermostat or any other device which shuts off the sump heat if the condenser is either not circulating or too warm;

   2. a spray safety switch which shuts off the spray pump if the vapor level drops below any fixed spray nozzle;

   3. a vapor level control thermostat or any other device which shuts off the sump heat when the vapor level rises too high; and

   4. a water flow switch, water pressure switch or any other device which shuts off the sump heat if the water in a water-cooled condenser has no flow or no pressure, whichever is being monitored;

c. install one of the following devices:

   1. a freeboard with a freeboard ratio greater than or equal to 0.75 - if the open top vapor degreaser opening

is greater than 10 square feet, the cover must be powered or equipped with mechanical features whereby it can be readily closed when the degreaser is not in use;

2. refrigerated chiller;

3. enclosed design (cover or door opens only when the dry part is actually entering or exiting the open top vapor degreaser);

4. carbon adsorption system, with ventilation greater than or equal to 50 cubic feet per minute per square foot of air/solvent interface (when cover is open), and exhausting less than 25 parts per million (ppm) of solvent averaged over one complete adsorption cycle; or

5. a control system, demonstrated to have control efficiency equivalent to or greater than any of the above, and approved by the Director; and

d. operate and maintain the open top vapor degreaser in a manner which is consistent with good engineering practice and which minimizes solvent evaporation from the unit.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

A. 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.

B. Monitoring And Recordkeeping

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; and,

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; and,

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.

C. 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; and,

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

2. 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; and,

   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.

3. 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

(Akron Regional Air Quality). 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 (Akron Regional Air Quality) 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; and,

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

D. <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 Requirements" 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:

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

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 X Wi X 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.