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Facility Name: **Sherwin-Williams Company**

Application Number: **01-7305**

Date: **June 10, 1998**

**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 SOURCE(S)

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 Ohio 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

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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 prove to be inadequate or 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 15 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.

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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 made at least 90 days prior to start-up of the source.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for 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, regulations, and policies.

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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Sherwin-Williams Company** located in **Franklin** 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.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P119	Continuous Mill 600 pounds/hour (modification HM-3)	Sampling pot covered when in use	3745-31-05 3745-21-07 (G)(2)	2.1 pounds/day OC, 0.4 ton OC/year, See Additional Terms and Conditions
P121	Continuous Mill 600 pounds/hour (modification HM-4)	Sampling pot covered when in use	3745-31-05 3745-21-07 (G)(2)	2.1 pounds/day OC, 0.4 ton OC/year, See Additional Terms and Conditions
P122	Continuous Mill 600 pounds/hour (modification HM-5)	Sampling pot covered when in use	3745-31-05 3745-21-07 (G)(2)	2.1 pounds/day OC, 0.4 ton OC/year, See Additional Terms and Conditions
P135	Continuous Mill 120 liter Premier HM-8	Sampling pot covered when in use	3745-31-05 3745-21-07 (G)(2)	2.1 pounds/day OC, 0.4 ton OC/year, See Additional Terms and

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P135 Cont'd				Conditions
P136	Continuous Mill 20 Liter Netzsch HM-7	Sampling pot covered when in use	3745-31-05 3745-21-07 (G)(2)	2.1 pounds/day OC, 0.4 ton OC/year, See Additional Terms and Conditions
P137	Continuous Mill 120 Liter Premier HM-8	Sampling pot covered when in use	3745-31-05 3745-21-07 (G)(2)	2.1 pounds/day OC, 0.4 ton OC/year, See Additional Terms and Conditions
T062	15,000 gallon Resin Storage Tank (T-269)	Bottom fill and conservation vent	3745-31-05 40 CFR Part 60 Subpart Kb	0.4 ton OC/year, See Additional Terms and Conditions
T063	15,000 gallon Resin Storage Tank (T-270)	Bottom fill and conservation vent	3745-31-05 40 CFR Part 60 Subpart Kb	0.4 ton OC/year, See Additional Terms and Conditions
T064	15,000 gallon Resin Storage Tank (T-271)	Bottom fill and conservation vent	3745-31-05 40 CFR Part 60 Subpart Kb	0.4 ton OC/year, See Additional Terms and Conditions

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SUMMARY  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
OC	3.6

**NSPS REQUIREMENTS**

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
T062-T064	3-15,000 gallon tanks	Kb

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Permit Management Unit  
P.O. Box 163669  
Columbus, OH 43216-3669

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and **Ohio EPA, Central District Office**  
**3232 Alum Creek Drive**  
**Columbus, OH 43207-3417**

#### **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 **Ohio EPA, Central District Office**  
**3232 Alum Creek Drive, Columbus, OH 43207-3417.**

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.

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**NEW SOURCE PERFORMANCE STANDARD SUBPART Kb**

The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

In accordance with 40 CFR 60.116b(a) and (b), the owner and operator of the following storage vessel(s) shall keep readily accessible records showing the dimension of each storage vessel and an analysis showing the capacity of each storage vessel for the life of each source.

<u>Source Number(s)</u>	<u>Tank Size</u>
T062-T064	15,000 gallon maximum

**ADDITIONAL SPECIAL TERMS AND CONDITIONS**

**A. Operational Restrictions**

1. The permittee shall operate the six continuous mills with closed sampling pots whenever paint is transferred to a thin and shade tank.

**B. Recordkeeping and Monitoring Requirements**

1. All records required by this permit to install shall be retained on file for a period of not less than five (5) years unless otherwise indicated by the 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.
2. No recordkeeping of emissions units P119, P121, P122, P135, P136 and P137 due to one time compliance method in Additional Special Term and Condition D.2.

**C. Reporting Requirements**

1. The permittee shall submit required reports in the following manner:

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Reports of any required monitoring and/or recordkeeping information shall be submitted to the Ohio EPA, Central District Office.

**D. Compliance Determination**

1. Emission Limitation

0.04 ton OC/year

Compliance Method

AP42  $L_w = 0.0010 * M_v * P_{va} * Q * K_n * K_p$

$L_w$  = Working loss  $Q = 3,404$  bbl throughput

$M_v = 91.16$  pounds/pound mole  $K_n = 1$  turnover fact

$P_{va} = 0.25$  psia  $K_p = 1$

$N = 142,958/12,000 = 11.9$  turnovers

$0.001 * 91.16 * 0.25 * 3403 * 1 * 1 = 77$  pounds OC

$77$  pounds/ $2000$  pounds/ton =  $0.04$  ton OC/year

Ohio EPA, Central District Office has given an allowable of  $0.4$  ton per year

2. P119, P121, P122, P135, P136, and P137

a. Emission Limitation

$2.1$  pounds/day;  $0.4$  ton OC/year

Compliance Method

Clements Vaporization Model is being used to show compliance with the pounds/day and tons per year OC emission limitations. This is a one time demonstration as long as the variables in the equations do not change. If the variables change, then the permittee is required to contact Ohio EPA, Central District Office.

$$E_x = ((M_x * K_x * A * P_x * 3600 * H) / (R * T)) * B$$

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where:	Maximum Estimate	Values
$E_x$ = Emissions of VOC species x (lb/yr)		759.64    2.08 lb/day
$M_x$ = Molecular weight of VOC species x (lb/lb-mole)		106        0.38 tons/yr
$K_x$ = Gas-phase mass transfer coefficient for VOC species x (ft/sec)		0.001561
A = Surface area of tank (ft <sup>2</sup> ), diameter = 2 ft		3.14
$P_x$ = Vapor pressure of VOC x (if a pure chemical is used) or the partial pressure of a chemical x (if a mixture is used) at temperature T (psia)		0.43
3600 = 3600 sec/hr		3600
H = Batch time (hr/batch)		4.00
R = Universal gas constant at 1 atmosphere of pressure		10.73
T = Temperature of the liquid, degrees R, assume 110 degrees Fahrenheit		570
B = Number of batches per year (batches/yr)		1460
U = Average wind speed in miles/ hour (assume 50 ft/min max)		0.57
$K_x = 0.00438 * U^{0.78} * (18/M_x)^{1/3}$		0.001561