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Facility Name: **O S Kelly Company**

Application Number: **08-3820**

Date: **September 16, 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 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

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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

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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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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **O S Kelly Company** located in **Clark** 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 & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P028	Oil Core Oven	*1	3745-31-05	0.34 lb/hr, 0.33 TPY SO ₂ ; 0.52 lb/hr, 0.49 TPY NO _x ; and 0.001 lb/hr, 0.001 TPY OC.
			3745-15-07	*2
F015	Sand System	*3	3745-31-05	24.34 lbs/day, 2.92 TPY Part.
				5% visible emission limitation as a six minute average
			3745-17-07 (B)	*4
			3745-17-08	*4

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- *¹ BAT is compliance with applicable OAC rules and specified emission limitations through an annual core oil restriction of 1.977.60 gallons; recordkeeping and reporting requirements.
- *² The limitation specified by this rule is equivalent to that established by OAC rule 3745-31-05.
- *³ BAT is compliance with applicable OAC rules and specified emission limitations through an annual sand production rate of 89,856.00 tons; recordkeeping and reporting requirements.
- *⁴ The limitations specified by these rules are less stringent than that established by OAC rule 3734-31-05.

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
SO ₂	0.33
NO _x	0.49
CO	0.001
Part.	2.92

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Regional Air Pollution Control Agency, 451 West Third Street, P.O. Box 972, Dayton, Ohio 45422.**

A. Additional Terms and Conditions

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1. The 0.34 lb/hr SO₂, 0.52 lb/hr NO_x, and 0.001 lb/hr OC limits were established for PTI purposes to reflect potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limits.
2. The 24.34 lbs/day Part. limit was established for PTI purposes to reflect potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

B. Operational Restrictions

1. The maximum annual core oil usage for emissions unit P028 shall not exceed 1,977.60 gallons.
2. The maximum annual production rate for emissions unit F015 shall not exceed 89,856.00 tons.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the core oil usage in emissions unit P028.
2. The permittee shall maintain monthly records of the mold sand produced in this emissions unit F015.

These records, as well as any supporting information and computations, shall be retained at the facility for a period of not less than five years and shall be available to the Director, or any authorized representative of the Director for review, upon verbal or written request.

D. Reporting Requirements

1. The permittee shall submit annual reports which identify any exceedances of the annual core oil usage limitation, as well as the corrective actions that were taken to achieve compliance. These reports shall be

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submitted by January 31 of each year.

2. The permittee shall submit annual reports that identify any exceedances of the annual production rate limitation, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

E. Compliance Methodologies

1. Compliance with the emission limitation(s) of these terms and conditions shall be determined in accordance with the following method(s):

For P028:

- a. Emission Limitation-
0.34 lb/hr SO₂,
0.52 lb/hr NO_x, and
0.001 lb/hr OC

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum hourly core oil usage of 1.030 gallons by the following emission factors: for SO₂, 0.33 lb/gallon of core oil; for NO_x, 0.5 lb/gallon of core oil; and for OC, 0.0008 lb/gallon of core oil, which correspond to SCC 3-04-003-54 from the Airs Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Pollutants (AIRS), 1990.

- b. Emission Limitation-
0.33 TPY SO₂,
0.49 TPY NO_x, and
0.001 TPY OC.

Applicable Compliance Method-

Compliance shall be determined by summing the 12 monthly core oil usage records as required in section C.1. and multiplying the sum by the following emission factors: for SO₂, 0.33

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lb/gallon of core oil; for NO_x, 0.5 lb/gallon of core oil; and for OC, 0.0008 lb/gallon of core oil, which correspond to SCC 3-04-003-54 from the Airs Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Pollutants (AIRS), 1990. The individual products shall then be divided by 2000 lbs/ton.

For F015:

- c. Emission Limitation-
24.34 lbs/day Particulate

Applicable Compliance Method-

Compliance shall be determined by multiplying the maximum daily mold sand production rate of 374.4 tons/day by the emission factor of 0.065 lb particulate /ton sand handled which corresponds to SCC 3-04-003-50 from the Airs Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Pollutants (AIRS), 1990. (This emission factor was reduced by 90% based on sand moisture content and information obtained from AP-42, 5th edition, Section 13.2.4.4).

- d. Emission Limitation-
2.92 TPY Particulate

Applicable Compliance Method-

Compliance shall be determined by summing the 12 monthly mold sand production rates as required in Section C.2. and multiplying the sum by the emission factor of 0.065 lb particulate /ton sand handled which corresponds to SCC 3-04-003-50 from the Airs Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Pollutants (AIRS), 1990. The product shall then be multiplied by 2000 lbs/ton. (This emission factor was reduced by 90% based on sand moisture content and information obtained from AP-42, 5th edition, Section 13.2.4.4).

- e. Emission Limitation-
5% opacity as a six minute average

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Applicable Compliance Method-
Compliance shall be determined in accordance with
OAC rule 3745-17-03(B) (3).