3745-21-15 **OAC Rule 3745-21-15 Control of Volatile Organic Compound Emissions from Wood Furniture Manufacturing Operations.**

[Comment: For dates and availability of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see the "Incorporation by Reference" paragraph at the end of rule 3745-21-01 of the Administrative Code.]

(A) Rule Applicability.

(1) Except as otherwise provided in paragraph (A)(2) of this rule, this rule shall apply to any facility that meets both of the following criteria:

(a) the facility is located in Butler, Clermont, Hamilton, or Warren county; and

(b) the facility has wood furniture manufacturing operations.

(2) Excluded from the requirements of this rule are the following:

(a) Any facility that has a potential to emit for VOC of less than 25.0 tons per year for all wood furniture manufacturing operations combined.

(b) Any facility that meets all requirements of paragraphs (A)(2)(b)(i) and (A)(2)(b)(ii) of this rule:

(i) The facility that uses no more than 625 gallons per month, for every month, or no more than 7500 gallons per rolling 12-month period, for every 12-month period, of coating, adhesive, cleaning, and washoff materials, including thinners for such materials, for all wood furniture manufacturing operations combined. A rolling 12-month period includes the previous 12 months of operation. The owner or operator of the facility shall maintain records of the total gallons of coating, adhesive, cleaning, and washoff materials, including thinners, used each month.

(ii) All records specified under paragraph (A)(2)(b)(i) of this rule shall be retained by the owner or operator for a period of not less than five years and shall be made available to the director or any authorized representative of the director for review during normal business hours.

(B) Definitions.

The definitions applicable to this rule are contained in rule 3745-21-01(X) of the Administrative Code.

(C) Overall requirements for wood furniture manufacturing operations.

The owner or operator of a wood furniture manufacturing operation at a facility that is subject to this rule shall comply with the requirements of paragraphs (D) through (N) of this rule.

(D) VOC emission limitations for finishing operations.

For any finishing operation, the owner or operator shall met the requirements of any one paragraph of paragraphs (D)(1) through (D)(5) of this rule. If the owner or operator elects to use paragraph (D)(4) or (D)(5) of this rule, the owner or operator shall also meet the requirements of paragraph (M) of this rule.

(1) VOC content limit for topcoats only.

(a) The VOC content of any topcoat shall not exceed 0.8 pound of VOC per pound of solids, as applied.

(b) There is no VOC content limit for sealers, stains, basecoats, and washcoats.

(2) VOC content limits for topcoats and sealers only.

(a) The VOC content of any topcoat shall not exceed 1.8 pounds of VOC per pound of solids, as applied, except for acid-cured alkyd amino conversion varnish topcoats.

(b) The VOC content of any acid-cured alkyd amino conversion varnish topcoat shall not exceed 2.0 pound of VOC per pound of solids, as applied.

(c) The VOC content of any sealer shall not exceed 1.9 pounds of VOC per pound of solids, as applied, except for acid-cured alkyd amino sealers.

(d) The VOC content of any acid-cured alkyd amino sealer shall not exceed 2.3 pound of VOC per pound of solids, as applied.

(e) There is no VOC content limit for stains, basecoats, and washcoats.

(3) VOC emission control system for topcoats and/or sealers.

In lieu of a VOC content limit for any topcoat subject to paragraph (D)(1) or (D)(2) of this rule or any sealer subject to paragraph (D(2) of this rule, a VOC emission control system shall be used that achieves for each topcoat or sealer employed and designated for control, an overall reduction of VOC emissions that is equal to or greater than the required overall control efficiency determined in accordance with paragraph (I)(6) of this rule. Also, if the VOC emission control system includes a thermal or catalytic oxidizer, the control

efficiency of the thermal or catalytic oxidizer for VOC emissions shall be at least ninety percent by weight.

(4) Daily VOC emissions limit for topcoats only.

Each topcoat employed in any day shall be subject to either a daily VOC emissions limit or a VOC content limit, as specified in paragraphs (D)(4)(a) and (D)(4)(b) of this rule. There is no VOC limit for sealers, stains, basecoats, and washcoats.

(a) The daily actual VOC emissions (E_{day}) shall not exceed the daily VOC emissions limit ($L_{da}y$) in which "E_{day}" and "L_{day}" are calculated for topcoats as follows:

$$E_{day} = \sum_{i=1}^{n} (AT_i)(CT_i)(1 - F_i)$$

$$L_{day} = (0.90) \sum_{i=1}^{n} (AT_i)(LT_i)$$

where:

AT_i = amount of solids of topcoat "i" used for the day, in pounds of solids.

CT_i = VOC content of topcoat "i" in pounds of VOC per pound of

solids, as applied.

F_i = fraction by weight of VOC emissions from topcoat "i" reduced or prevented from being emitted by a VOC emission control system.

LT_i = emission limit for topcoat "i" expressed as 0.8 pound of VOC per pound of solids, as applied. However, if topcoat "i" is employed at the facility as of the effective date of this rule and if the VOC content of topcoat "i" is less than the previously stated emissions limit, then the facility must use the actual VOC content of topcoat "i" as of the effective date of this rule as the emissions limit for topcoat "i".

i = subscript denoting a specific topcoat selected by the owner or operator for inclusion in the daily VOC emissions limit.

n = total number of topcoats selected by the owner or operator for inclusion in the daily VOC emissions limit

(b) For any topcoat not selected by the owner or operator for inclusion in the daily VOC emissions limit, the VOC content of the topcoat shall not exceed 0.8 pound of VOC per pound of solids.

(5) Daily VOC emissions limit for topcoats, sealers, and other finishing materials.

Each topcoat and sealer employed in any day shall be subject to either a daily VOC emissions limit or a VOC content limit, as specified in paragraphs (D)(5)(a) and (D)(5)(b) of this rule. Stains, basecoats, and washcoats can be included in the daily VOC emissions limit. There is no VOC limit for stains, basecoats, and washcoats that are not included in the alternative daily VOC emissions limit.

(a) The daily actual VOC emissions (E_{day}) shall not exceed the daily VOC emissions limit (L_{day}) in which "E_{day}" and "L_{day}" are calculated for finishing materials as follows:

$$E_{day} = \sum_{i=1}^{n} (A_i)(C_i)(1 - F_i)$$

$$L_{day} = (0.90) \sum_{i=1}^{n} (A_i)(L_i)$$

where:

A_i = amount of finishing material "i" employed for the day, expressed in pounds of solids if a topcoat, sealer, washcoat, or basecoat; or in gallons if a stain.

C_i = VOC content of finishing material "i" employed for the day, expressed in pounds of VOC per gallon of solids, as applied, if a topcoat, sealer, washcoat, or basecoat; or in pounds of VOC per gallon, as applied, if a stain.

F_i = fraction by weight of VOC emissions from finishing material "i" reduced or prevented from being emitted by a VOC emission control system.

L_i = emissions limit for finishing material "i" based of the type of finishing material as follows: 1.8 pounds of VOC per gallon of solids for a topcoat; 1.9 pounds of VOC per gallon of solids for a sealer; 9.0 pounds of VOC per gallon of solids for a washcoat; 1.2 pound of VOC per gallon of solids for a basecoat; and 0.791 pounds of VOC per gallon

of coating for a stain. However, if finishing material "i" is employed at the facility as of the effective date of this rule and if the VOC content of finishing material "i" is less than the previously stated emissions limit, then the facility must use the actual VOC content of finishing material "i" as of the effective date of this rule as the emissions limit for finishing material "i".

i = subscript denoting a specific finishing material selected by the owner or operator for inclusion in the alternative daily VOC emissions limit.

n = total number of finishing material selected by the owner or operator for inclusion in the alternative daily VOC emissions limit.

(b) For any topcoat or sealer not selected by the owner or operator for inclusion in the daily VOC emissions limit, the VOC content limit shall be the following:

(i) The VOC content of any topcoat shall not exceed 1.8 pounds of VOC per pound of solids, except for acid-cured alkyd amino conversion varnish topcoats.

(ii) The VOC content of any acid-cured alkyd amino conversion varnish topcoat shall not exceed 2.0 pound of VOC per pound of solids.

(iii) The VOC content of any sealer shall not exceed 1.9 pounds of VOC per pound of solids, except for acid-cured alkyd amino sealers.

(iv) The VOC content of any acid-cured alkyd amino sealer shall not exceed 2.3 pounds of VOC per pound of solids.

(E) VOC content limit for strippable spray booth materials.

The VOC content of any strippable spray booth material employed for wood furniture manufacturing operations shall not exceed 0.8 pound of VOC per pound of solids, as applied.

(F) Work practice requirements.

The owner or operator of a facility subject to this rule shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for each wood furniture manufacturing operation and addresses each of the work practices contained in paragraphs (b) through (d) and (f) through (k) of section 63.803 of subpart JJ of 40 CFR Part 63 and the following:

(1) for any terms pertaining to the work practices that are not defined under paragraph (B) of this rule, the definitions under section 63.801 of subpart JJ of 40 CFR Part 63 shall be the used;

(2) the wording "Administrator (or delegated State, local, or Tribal authority)" is replaced by the wording "Ohio EPA of delegated local air agency;"

(3) the wording "organic HAP solvent" is replaced by the wording "VOC solvent;" and

(4) the plan shall be developed no more than 60 days after the compliance date.

(G) Compliance dates.

(1) Except where otherwise specified within this rule, any owner or operator of a facility that is subject to this rule shall comply with the requirements of this rule by no later than the following dates:

(a) For a facility for which installation commenced before the effective date of this rule, the compliance date of any wood furniture manufacturing operation within the facility is either twelve months from the effective date of this rule or the date of initial startup of the wood furniture manufacturing operation, whichever is later.

(b) For a facility for which installation commenced on or after the effective date of this rule, the compliance date of any wood furniture manufacturing operation within the facility is the date of initial startup of the wood furniture manufacturing operation.

(2) For a VOC emission control system that is used for a finishing operation to comply with paragraph (D)(3), (D)(4), or (D)(5) of this rule, the owner or operator shall demonstrate the overall control efficiency of the VOC emission control system by testing the finishing operation and the VOC emission control system in accordance with paragraph (J) of this rule within 90 days after the finishing operation's compliance date.

(3) Additional testing of the finishing operation and the VOC emission control system in accordance with paragraph (J) of this rule may be required by the director to ensure continued compliance.

(H) Monitoring requirements for a VOC emission control system.

(1) For any incinerator used to comply with paragraph (D) of this rule, the owner or operator shall install, calibrate, maintain, and operate according to manufacturer's specifications, a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall be located as

follows:

(a) Where a thermal incinerator is used, the temperature monitoring device shall be located in the firebox or in the duct immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(b) Where a catalytic incinerator is used, temperature monitoring devices shall be located in the gas stream immediately before and after the catalyst bed.

(2) For any regenerative carbon adsorber used to comply with paragraph (D) of this rule, the owner or operator shall install, calibrate, maintain and operate according to manufacturer's specifications the following monitoring devices:

(a) An integrating regeneration steam flow monitoring device, having an accuracy of +/-10 percent or better, shall be employed for recording the total regeneration steam mass or volumetric flow for each regeneration cycle.

(b) A carbon bed temperature monitoring device shall be employed for recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle.

(3) For any concentrator, such as a zeolite wheel or rotary carbon bed concentrator, used to comply with paragraph (D) of this rule, the owner or operator shall install, calibrate, maintain, and operate according to manufacturer's specifications the following monitoring devices equipped with continuous recorders:

(a) A temperature monitoring device for the desorption gas stream.

(b) A pressure monitoring device to measure pressure drop across the zeolite wheel or rotary carbon bed with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(4) Where a control device other than an incinerator, regenerative carbon adsorber, or concentrator is used to comply with paragraph (D) of this rule, or as an alternative to the monitoring device specified in paragraphs (H)(1) through (H)(3) of this rule, the owner or operator shall install, calibrate, maintain, and operate, according to manufacturer's specifications, an organic monitoring device equipped with a continuous recorder for measuring the concentration level at the outlet of the control device.

(5) For any capture system that is part of a VOC emissions control used to comply with paragraph (D) of this rule and that is a permanent total enclosure, the owner or operator shall install, calibrate, maintain, and operate, according to manufacturer's specifications, either one of the following:

(a) A pressure monitoring device equipped with a continuous recorder to measure pressure drop across the enclosure with an accuracy of at least 0.5 inch of water column or 5 percent of the measured value, whichever is larger.

(b) A monitoring device equipped with a continuous recorder to measure the facial velocity of air through any natural draft opening into the enclosure.

(6) For any capture system that is part of a VOC emissions control used to comply with paragraph (D) of this rule and that is not a permanent total enclosure, the owner or operator shall install, calibrate, maintain, and operate, according to manufacturer's specifications, either one of the following:

(a) A pressure monitoring device equipped with a continuous recorder to measure the static pressure for each capture device with an accuracy of at least 0.5 inch of water column or 5 percent of the measured value, whichever is larger.

(b) A flow rate monitoring device equipped with a continuous recorder to measure the flow in the duct from each capture device in the capture system to the control device with an accuracy of at least ten percent of the flow.

(7) Capture system bypass line.

For any capture system that is part of a VOC emissions control used to comply with paragraph (D) of this rule and that contains bypass lines which could divert flow (i.e., VOC emissions) away from the control device to the atmosphere, the owner or operator shall for each bypass line meet the requirements of any one paragraph of paragraphs (H)(7)(a) through (H)(7)(e) of this rule.

(a) (Flow control position indicator) The owner or operator shall install, calibrate, maintain, and operate, according to manufacturer's specifications, a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the control device or diverted from the control device. The flow control position indicator shall be installed at the entrance to any bypass line that could divert the emissions away from the control device to the atmosphere.

(b) (Car-seal or lock-n-key) The owner or operator shall secure the bypass line valve in the nondiverting position with a car-seal or a lock-and-key type configuration. The owner or operator shall perform a visual inspection of the seal or closure mechanism at least once every month

to ensure that the valve is maintained in the non-diverting position and the emissions are not diverted away from the add-on control device to the atmosphere.

(c) (Valve closure monitoring) The owner or operator shall employ a valve closure monitoring system that ensures any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. The owner or operator shall inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(d) (Automatic shutdown system) The owner or operator shall employ an automatic shutdown system in which the finishing operation is stopped when flow is diverted by the bypass line away from the control device to the atmosphere when the finishing operation is running. The owner or operator shall inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the finishing operation.

(e) (Flow direction indicator) The owner or operator shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, a flow direction indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the control device or diverted from the control device. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator shall be installed in each bypass line or air makeup supply line that could divert the VOC emissions away from the control device to the atmosphere.

(8) (Alternative control device monitoring) An owner or operator of control device that is part of a VOC emission control system used to comply with paragraph (D) of this rule may request approval to employ monitoring devices and monitoring parameters other than those listed in paragraphs (H)(1) through (H)(4) of this rule. The request shall be submitted according to the procedures specified in paragraph (H)(10) of this rule.

(9) (Alternative capture system monitoring or bypass line monitoring) An owner or operator of a capture system that is part of a VOC emission control system used to comply with paragraph (D) of this rule may request approval to employ monitoring devices and monitoring parameters other than those listed in paragraphs (H)(5) through (H)(7) of this rule. The request shall be submitted according to the procedures specified in paragraph (H)(10) of this rule.

(10) Approval of alternative monitoring devices and parameters.

(a) The owner or operator who has been directed by any paragraph of this rule to request approval to employ monitoring devices and parameters other than required by this rule shall submit within an application for a permit or modification of a permit, or by other means provided by the Ohio EPA or its delegated local air agency, the following information:

(i) A description of the parameter(s) to be monitored to ensure the capture system or control device is operated in conformance with its design and achieves the specified emission limit, percent reduction, or nominal efficiency, and an explanation of the criteria used to select the parameter(s).

(ii) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the capture system or control device being monitored, the schedule for this demonstration, and a statement that the owner or operator will establish an operating limit (operating parameter value) for the monitored parameter as part of the initial compliance status report required in paragraph (L)(2) of this rule.

(iii) The frequency and content of monitoring, recording, and reporting if monitoring and recording is not continuous, or if reports of operating values when the monitored parameter value is outside the operating limit established in the permit or initial compliance report will not be included in semiannual compliance status reports as specified in paragraph (L)(3) of this rule. The rationale for the proposed monitoring, recording, and reporting system shall be included.

(b) If the monitoring device and parameter are approved by the director, the monitoring device and parameter, including associated records and semiannual reporting, shall be specified in the terms and conditions of a permit or order issued by the director. If required by USEPA, any director-approved alternative monitoring device and/or monitoring parameter shall be submitted to USEPA for approval as a revision of the state implementation plan.

(11) While operating a VOC emission control system for controlling emissions from a finishing operation, the owner or operator shall not operate any capture or control device within the VOC emission control system at a three-hour block average value greater than or less than (as appropriate) the operating limits (operating parameter values) established during the most recent compliance test(s) that demonstrated compliance, except during periods of startup, shutdown, and malfunction.

(12) The owner or operator shall inspect the VOC emission control system and monitoring equipment to assure that the VOC emission control system is operating properly, and that no leaks or malfunctions have occurred or are occurring. The inspections shall be made at the frequency defined by the equipment manufacturer, or as otherwise appropriate for each VOC emission control system and monitoring equipment, but not less than monthly.

(I) Procedures for the VOC content and solids content of a coating, the VOC content for dip coaters, and the determination of required overall control efficiency for controlled topcoats and sealers.

(1) The VOC content and solids content of a coating (finishing material or a strippable spray booth material) shall be determined by the owner or operator in accordance with paragraph (B) of rule 3745-21-10, wherein formulation data or USEPA method 24 procedures (which include various ASTM measurement methods) may be employed.

(2) For a finishing material containing styrene, the VOC content and VOC emissions associated with styrene shall be based on an estimate of the unreacted styrene, which shall be calculated by multiplying the amount of styrene monomer in the finishing material, when it is applied, by a factor of 0.16.

(3) For a finishing material containing formaldehyde, the VOC content and VOC emissions associated with formaldehyde shall be based on the amount of free formaldehyde present in the finishing material when it is applied. The free formaldehyde content shall be determined in accordance with ASTM D1979-97, D5910-96, D6191-97, or D6902-04e1.

(4) A certified product data sheet that provides data on VOC content and solids content shall be used by the owner or operator provided that any data based on a measurement method shall be a measurement method that meets paragraph (I) of this rule.

(5) VOC content for dip coaters.

The as-applied VOC content of a finishing material that is applied by a dip coater shall be based upon either paragraph (I)(5)(a) or (I)(5)(b) of this rule.

(a) (30-day average VOC content) The as-applied VOC content of a finishing material that is applied by a dip coater shall be based upon a rolling 30-day average of the finishing material and thinner added to the reservoir of the dip coater. The 30-day average VOC content (C_{30}), expressed in pounds of VOC per pound of solids, as applied, shall be calculated for each day of operation of the dip coater as follows:

$$C_{30} = \frac{\sum_{i=1}^{n} (A_{i,30})(C_{i,\,VOC})}{\sum_{i=1}^{n} (A_{i,30})(C_{i,\,solids})}$$

where:

$A_{i,30}$ = amount of material "i" added to the reservoir of the dip coater during a 30-day period consisting of the day of operation of the continuous coater plus the past 29 calendar days, expressed in gallons.

$C_{i,VOC}$ = VOC content of material "i", expressed in pounds of VOC per gallon.

$C_{i,solids}$ = solids content of material "i", expressed in pounds of solids per gallon.

i = subscript denoting a specific material (finishing material or thinner) added to the reservoir of the dip coater during the 30-day period.

n = total number of materials (finishing materials and thinners) added to the reservoir of the dip coater during the 30-day period.

(b) (Viscosity-based VOC content) The as-applied VOC content of a finishing material that is applied by a dip coater shall be based upon the viscosity of the finishing material in the reservoir of a dip coater as follows:

(i) The owner or operator shall compile data demonstrating that viscosity is an appropriate parameter for demonstrating compliance with a VOC content limit in lieu of a 30-day average VOC content calculation. Such demonstration shall include data on the VOC content and measured viscosity of the initial material in the reservoir at the start of the demonstration period, the measured viscosity of the material in the reservoir after each addition of thinner during the demonstration period, and a calculation of the average VOC content for the demonstration period based on the equation in paragraph (I)(5)(a) of this rule

and the additions of finishing material and thinner during the demonstration period. During the demonstration period, the dip coater shall be employed in a normal manner.

(ii) If the VOC content of the initial material in the reservoir and the average VOC content calculated for the demonstration period are not greater than the appropriate VOC content limit under paragraph (D) of this rule, then the minimum viscosity measurement during the demonstration period shall be the target viscosity to be employed by the owner or operator for demonstrating continued compliance with the VOC content limit.

(iii) The owner or operator shall measure and record the viscosity of the material in the reservoir after each addition of thinner. If the measured viscosity is equal to or greater than the target viscosity, the owner or operator of the dip coater is employing a compliant coating.

(6) Determination of required overall control efficiency for controlled topcoats and sealers.

For a VOC emission control system that is used to comply with paragraph (D)(3) of this rule, the overall reduction of VOC emissions, that is, the required overall control efficiency (R), expressed in percent by weight, shall be determined as follows for each topcoat and sealer designated for control:

$R = [(C - L)/C](100)$

where:

C = the VOC content of the topcoat or sealer designated for control, in pounds of VOC per pound of solids, as applied.

L = the VOC content limit under paragraph (D)(1) or (D)(2) of this rule for the topcoat or sealer designated for control, in pounds of VOC per pound of solids, as applied.

(J) Compliance tests for VOC emission control systems.

(1) For a VOC emission control system used to comply with paragraph (D) of this rule, the owner or operator shall conduct an initial compliance test to determine the capture efficiency of the capture system, the control efficiency of the control device (or each control device if a combination of control devices), and the overall control efficiency of the VOC emission control system in accordance with paragraph (C) or rule 3745-21-10 of the Administrative Code wherein USEPA method 25 or 25A shall be used for determining the concentration of VOC in a gas stream.

(2) During the compliance test described in paragraphs (J)(1) of this rule that demonstrates compliance, the owner or operator shall establish the operating limits (operating parameter values) for the monitoring devices required under paragraph (H) of this rule as follows:

(a) If the control device is a thermal oxidizer, establish the operating limit as follows:

(i) Monitor and record the combustion temperature either in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs at least once every 15 minutes during each of the three runs of the compliance test.

(ii) Calculate and record the average combustion temperature maintained during the compliance test. This average combustion temperature is the minimum operating limit for the thermal oxidizer.

(b) If the control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (J)(2)(b)(i) and (J)(2)(b)(ii) or paragraphs (J)(2)(b)(iii) and (J)(2)(b)(iv) of this rule.

(i) Monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs comprising a compliance test.

(ii) Calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the compliance test. These are the minimum operating limits for the catalytic oxidizer.

(iii) Monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs of the compliance test. Use this recorded temperature data to calculate and record the average temperature before the catalyst bed during the performance test. This is the minimum operating limit for the catalytic oxidizer.

(iv) Develop and implement an inspection and maintenance plan for the catalytic oxidizer(s) for which the owner or operator elects to monitor according to paragraph (J)(2)(b)(iii) of this rule. The plan must address, at a minimum, the elements specified in paragraphs (J)(2)(b)(iv)(a) through (J)(2)(b)(iv)(c) of this rule.

(a) Conduct an annual sampling and analysis of the catalyst

activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, the owner or operator shall replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

(b) Conduct monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(c) Conduct annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, the owner or operator shall replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst, then the owner or operator shall conduct a new compliance test to determine the control efficiency of the catalytic oxidizer according to paragraph (I)(1) of this rule. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new compliance test to determine the control efficiency of the catalytic oxidizer is not required and the previously established operating limits for that catalytic oxidizer may be used.

(c) If the control device is a regenerative carbon adsorber, establish the operating limits as follows:

(i) Monitor and record the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the compliance test.

(ii) The operating limits for the regenerative carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) If the control device includes a concentrator, establish operating limits for the concentrator as follows:

(i) Monitor and record the desorption concentrate stream gas

temperature at least once every 15 minutes during each of the three runs of the compliance test.

(ii) Use the data collected during the compliance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(iii) Monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(iv) Use the data collected during the compliance test to calculate and record the average pressure drop. This is the minimum operating limit for the pressure drop of the dilute stream across the concentrator.

(e) If the capture system is a permanent total enclosure, the operating limit is either one of the following, based on the criteria of a permanent total enclosure:

(i) The pressure drop across the enclosure shall be at least 0.007 inch of water.

(ii) The average facial velocity of air through all natural draft openings shall be at least 200 feet per minute.

(f) If the capture system is a not a permanent total enclosure, establish an operating limit for each separate capture device in the capture system as follows:

(i) Monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in the emission capture system at least once every 15 minutes during each of the three test runs of the compliance test for capture efficiency at a point in the duct between the capture device and the control device inlet.

(ii) Calculate and record the average gas volumetric flow rate or average duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or average duct static pressure is the minimum operating limit for that specific capture device.

(K) Recordkeeping.

(1) (General) All records specified under this paragraph shall be retained by the owner or operator for a period of not less than five years and shall be made

available to the director or any authorized representative of the director for review during normal business hours. The following types of records are to be maintained by the owner or operator of a wood furniture manufacturing operation subject to this rule:

(a) Compliance demonstration records for finishing operations.

(b) Compliance demonstration records for strippable spray booth materials.

(c) Work practice implementation plan records.

(d) Monitoring records for VOC emission control systems.

(2) Compliance demonstration records for finishing operations.

For any finishing operation subject to paragraph (D) of this rule, the owner or operator shall maintain the following records:

(a) A record of the VOC emission requirement elected to be met under any one paragraph of paragraphs (D)(1) through (D)(5) of this rule for each day of operation of the finishing operation.

(b) A certified product data sheet for each finishing material that is subject to a VOC emission requirement elected to be met under paragraph (K)(2)(a) of this rule, and a certified product data sheet for any thinners or other VOC material added to the finishing materials before application.

(c) A record of the VOC content, in pounds of VOC per pound of solids, as applied, of each finishing material, other than a stain, that is subject to a VOC content limit or a daily VOC emissions limit under paragraph (D) of this rule, including documentation on any thinner or other VOC added to the finishing material before application.

(d) A record of the VOC content, in pounds of VOC per gallon, as applied of each stain subject to a daily VOC emissions limit under paragraph (D) of this rule, including documentation on any thinner or other VOC added to the stain before application.

(e) For any dip coater that is subject to a VOC content limit under paragraph (D) of this rule, the records listed under paragraph (K)(2)(e)(i) or (K)(2)(e)(ii) of this rule, whichever is applicable pursuant to paragraph (I)(5) of this rule:

(i) Records pertaining to the 30-day average VOC content:

(a) For each day of operation, the gallons of each material

(finishing material and thinner) added to the dip coater reservoir.

(b) The VOC content (in pounds VOC per gallon) and solids content (in pounds of solids per gallon) for each material added to the dip coater reservoir.

(c) For each day of operation, the 30-day average VOC content in pounds of VOC per pound of solids.

(ii) Records pertaining to the viscosity-based VOC content:

(a) For each day of operation, the gallons of each material (finishing material and thinner) added to the dip coater reservoir.

(b) Viscosity measurements after each addition of thinner.

(c) The target viscosity for a compliant coating.

(d) Data demonstrating that viscosity is an appropriate parameter for demonstrating compliance, including data supporting the target viscosity, as established under paragraph (I)(5)(b) of this rule.

(f) For a VOC emission control system that is employed to meet paragraph (D)(3) of this rule and that has an overall control efficiency of less than 81 percent, the VOC content in pounds of VOC per gallon of solids and the required overall control efficiency, as determined in accordance with paragraph (I)(6) of this rule, for each topcoat and sealer being controlled.

(g) For a finishing operation subject to a daily VOC emissions limit under paragraph (D)(4) or (D)(5) of this rule, the amounts of finishing materials employed for each day of operation, the daily actual VOC emissions and the daily VOC emissions limit.

(h) For a VOC emission control system that is employed to meet paragraph (D)(3), (D)(4), or (D)(5) of this rule, the monitoring records specified under paragraph (K)(5) of this rule.

(3) Compliance demonstration records for strippable spray booth materials.

The owner or operator of a wood furniture manufacturing operation employing a strippable spray booth material subject to the VOC content limit in paragraph (E) of this rule shall maintain records of the following:

(a) A certified product data sheet for each strippable spray booth material as received and a certified product data sheet for any thinner added to a strippable spray booth material.

(b) The VOC content, in pounds of VOC per pound of solids, as applied, of each strippable spray booth material employed.

(4) Work practice implementation plan records.

The owner or operator of a wood furniture manufacturing operation subject to the work practice requirements in paragraph (E) of this rule shall maintain on-site the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to the following:

(a) Records demonstrating that the operator training program required by section 63.803(b) of subpart JJ of 40 CFR Part 63 is in place.

(b) Records collected in accordance with the inspection and maintenance plan required by section 63.803(c) of subpart JJ of 40 CFR Part 63.

(c) Records associated with the cleaning solvent accounting system required by section 63.803(d) of subpart JJ of 40 CFR Part 63;

(d) Records associated with the limitation on the use of conventional air spray guns showing total finishing material usage and the percentage of finishing materials applied with conventional air spray guns for each semiannual period as required by section 63.803(h)(5) of subpart JJ of 40 CFR Part 63.

(e) Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.

(5) Monitoring records for VOC emission control systems.

For any VOC emission control system subject to paragraph (H) of this rule, the owner or operator shall maintain monitoring records as follows:

(a) Where a thermal oxidizer is employed:

(i) Continuous records of the firebox temperature.

(ii) Records of all 3-hour block averages of the firebox temperature during operation of the finishing operation.

(iii) A record of the operating limit established under paragraph (J)(2)

of this rule.

(iv) Records of the times and durations of all periods during process or control operation when the monitoring device is not working.

(b) Where a catalytic oxidizer is employed:

(i) Continuous records of the temperature upstream and the temperature difference across the catalyst bed.

(ii) Records of 3-hour block averages of the temperature upstream and the temperature difference across the catalyst bed during operation of the finishing operation.

(iii) A record of the operating limits established under paragraph (J)(2) of this rule.

(iv) Records of the times and durations of all periods during process or control operation when the monitoring device is not working.

(c) Where a regenerative carbon adsorber is employed.

(i) A record of the total regenerative steam mass or volumetric flow for each carbon bed regeneration cycle.

(ii) record of the temperature of the carbon bed after each regeneration cycle [and within 15 minutes of completing any cooling cycle(s)].

(iii) A record of the operating limits established under paragraph (J)(2) of this rule.

(iv) Records of the times and durations of all periods during process or control operation when either monitoring device is not working.

(d) Where a concentrator is employed:

(i) Continuous records of the temperature of the desorption concentrate stream and the pressure drop of the dilute stream across the concentrator.

(ii) Records of all 3-hour block averages of the temperature of the desorption concentrate stream during operation of the finishing operation.

(iii) Records of all 3-hour block averages of the pressure drop of the dilute stream across the concentrator during operation of the finishing operation.

(iv) A record of the operating limits established under paragraph (J)(2) of this rule.

(v) Records of the times and durations of all periods during process or control operation when either monitoring device is not working.

(e) Where an organic monitoring device is employed for monitoring the concentration level at the outlet of control device:

(i) Continuous records of the concentration level of the outlet of the control device.

(ii) Records of all 3-hour block averages of the concentration level during operation of the finishing operation.

(iii) A record of the operating limit established under paragraph (J)(2) of this rule.

(iv) Records of the times and durations of all periods during process or control operation when the monitoring device is not working.

(f) For any capture system bypass line that could divert flow (i.e., VOC emissions) away from the control device to the atmosphere, the owner or operator shall maintain the monitoring records specified in paragraph (K)(5)(f)(i) through (K)(5)(f)(iii) of this rule, whichever is applicable.

(i) Where a flow indicator control position indicator, valve closure monitoring system, or flow direction indicator is employed to monitor the bypass line:

(a) Hourly records of whether the monitoring device was operating and whether a diversion of flow (VOC emissions) to the atmosphere was detected at any time during the hour.

(b) A record indicating that a monthly inspection of the monitoring device, if required under this rule, has been done.

(c) Records of the times and durations of all periods when the monitoring device is not operating or flow (VOC emissions) is diverted to the atmosphere.

(ii) Where a car-seal or a lock-and-key type configuration is employed to secure the bypass line valve in the non-diverting position:

(a) A record indicating that a monthly visual inspection of the

seal or closure mechanism has been done.

(b) Records of the times and durations of all periods when the seal mechanism is broken, the bypass line valve position has changed, the serial number of the broken car-seal has changed, or when the key to unlock the bypass line valve has been checked out.

(iii) Where an automatic shutdown system is employed, a record indicating that a monthly inspection of the system has been done.

(g) For monthly (or more frequent) inspections of the VOC emission control system and monitoring equipment conducted pursuant to paragraph (H)(12) of this rule, arecord of the results of each inspection.

(L) Reporting.

(1) (General) The provisions under paragraph (L) of this rule describe the contents of reports and identify the reporting dates for the following reports:

(a) Initial compliance status report.

(b) Semiannual compliance status reports.

(2) Initial compliance status report.

The owner or operator of a wood furniture manufacturing operation subject to this rule shall submit an initial compliance status report within 60 calendar days after the compliance date specified in paragraph (G) of this rule as follows:

(a) For any finishing operation subject to paragraph (D) of this rule, the owner or operator shall state in the initial compliance status report which paragraph of paragraphs (D)(1) through (D)(5) of this rule is elected to be met.

(b) For any topcoat or sealer that is subject to the VOC content limit of paragraph (D)(1), (D)(2), (D)(4)(b), or (D)(5)(b) of this rule and that complies by the procedures of paragraphs (I)(1) through (I)(4) of this rule, the owner or operator shall state in the initial compliance status report that compliant coatings for the topcoats and sealers, as applicable, are being used.

(c) For any topcoat or sealer that is applied by means of a dip coater, that is subject to the VOC content limit of paragraph (D)(1), (D)(2), (D)(4)(b), or (D)(5)(b) of this rule, and that complies by the procedures of paragraph (I)(5) of this rule, the owner or operator shall state in the

initial compliance status report:

(i) that compliant coatings, as determined by the procedures of paragraph (I)(5)(a) of this rule for the 30-day average VOC content, are being used; or

(ii) that compliant coatings, as determined by the procedures of paragraph (I)(5)(b) of this rule for the viscosity-based VOC content, are being used; and shall submit data, recorded pursuant to paragraphs (I)(5)(b)(i) and (I)(5)(b)(ii) of this rule, that demonstrate viscosity is an appropriate parameter for demonstrating compliance and that identify the target viscosity for compliant coatings.

(d) For any finishing operation that is equipped with a VOC emission control system to comply with paragraph (D)(3) of this rule, the owner or operator shall submit in the initial compliance status report:

(i) Information on designated topcoats and sealers to be controlled and the data recorded pursuant to paragraph (I)(6) of this rule that demonstrate the required overall control efficiency for each topcoat and sealer to be controlled.

(ii) Identification and description of each monitoring device employed to comply with the requirements of paragraph (H) of this rule.

(iii) The results of compliance tests conducted pursuant to paragraph (J) of this rule to determine the overall control efficiency of the VOC emission control system and the control efficiency of any thermal or catalytic oxidizer within the VOC emission control system.

(iv) A complete test report for any compliance tests of the VOC emission control system.

A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(v) For any compliance tests of the VOC emission control system, the compliance test monitoring data recorded pursuant to paragraph (J)(2) of this rule, including the operating parameter values established for any monitoring device.

(e) For any finishing operation that is equipped with a VOC emission control system to comply with paragraph (D)(4)(a) or (D)(5)(a) of this rule, the owner or operator shall submit in the initial compliance status report the information specified under paragraphs (L)(2)(d)(ii) through (L)(2)(d)(iv) of this rule.

(f) For any wood furniture manufacturing operation subject to paragraph (E) of this rule, the owner or operator shall state in the initial compliance status report that compliant coatings for strippable spray booth materials are being used.

(g) For wood furniture manufacturing operations subject to the work practice requirements of paragraph (F) of this rule, the owner or operator shall state in the initial compliance status report that the work practice implementation plan has been developed and that procedures have been established for implementing the provisions of the plan.

(3) Semiannual compliance status reports.

The owner or operator of a wood furniture manufacturing operation subject to this rule shall submit semiannual compliance status reports no later than 30 calendar days after the end of each 6-month period to the Ohio EPA or its delegated local air agency. The first report shall be submitted no later than 30 calendar days after the end of the first six-month period following the compliance date. Subsequent reports shall be submitted no later than 30 calendar days after the end of each 6-month period following the first report or no later than 30 calendar days after the end of each 6-month period otherwise established within a permit issued for the wood furniture manufacturing operation. For each semiannual compliance status report, the owner or operator shall submit the following information for the 6-month period covered by the report:

(a) For any finishing operation subject to paragraph (D) of this rule, the owner or operator shall state in the semiannual compliance status report any changes to the previous reporting of which paragraph of paragraphs (D)(1) through (D)(5) of this rule is elected to be met.

(b) For any topcoat or sealer that is applied by means of a dip coater, any changes to the means of compliance previously reported. If the change pertains to the use of a viscosity limit, the data specified under paragraphs (I)(5)(b)(i) and (I)(5)(b)(ii) of this rule.

(c) For any VOC emission control system employed to met paragraph (D)(3), (D)(4)(a), or (D)(5)(a) of this rule, any changes to monitoring devices previously reported and required under paragraph (H) of this rule.

(d) If any subsequent compliance tests of the VOC emission control system are conducted during the semiannual reporting period after the initial compliance status report has been submitted, the semiannual compliance status report shall include the results of each compliance test, a complete test report, and the compliance test monitoring data as described under paragraphs (L)(2)(d)(ii) through (L)(2)(d)(iv) of this rule.

(e) Compliance certification for semiannual reporting period.

The owner or operator shall submit with the semiannual compliance status report, the following compliance certifications, where applicable:

(i) For any topcoat or sealer that is subject to the VOC content limit of paragraph (D)(1), (D)(2), (D)(4)(b), or (D)(5)(b) of this rule and that complies by the procedures of paragraphs (I)(1) through (I)(4) of this rule, the compliance certification shall state that compliant coatings for topcoats and sealers, as applicable, have been used each operating day in the semiannual reporting period, or should otherwise identify the periods of use of noncompliant coatings for topcoats and sealers, as applicable, the reasons for the use of noncompliant coatings, and the amounts and VOC contents of each noncompliant coating used.

(ii) For any topcoat or sealer that is applied by means of a dip coater, that is subject to the VOC content limit of paragraph (D)(1), (D)(2), (D)(4)(b), or (D)(5)(b) of this rule, and that complies by the procedures of paragraph (I)(5) of this rule, the compliance certification shall be the following, whichever is applicable:

(a) (Compliance by 30-day average VOC content) The compliance certification shall state that compliant coatings, as determined by the procedures of paragraph (I)(5)(a) of this rule for the 30-day average VOC content of the materials added to the dip coater reservoir, have been used each operating day in the semiannual reporting period, or should otherwise identify the periods of use of noncompliant coatings and the reasons for the use of noncompliant coatings.

(b) (Compliance by viscosity-based VOC content) The compliance certification shall state that compliant coatings have been used each operating day in the semiannual reporting period, based on the viscosity of the material in the dip coater reservoir not being less than target viscosity,

as determined by the procedures of paragraph (I)(5)(b) of this rule, or should otherwise identify the periods of use of noncompliant coatings and the reasons for the use of noncompliant coatings.

(iii) For any finishing operation that is equipped with a VOC emission control system to comply with paragraph (D)(3) of this rule:

(a) The compliance certification shall state that the 3-hour block averages of the monitoring parameters recorded pursuant to paragraph (K)(5) of this rule had complied with the operating limits (operating parameter values) for the monitoring parameters established under paragraph (J)(2) of this rule during of all periods of operation of the finishing operation; or should otherwise identify the times and durations of all periods of noncompliance and the reasons for noncompliance.

(b) The compliance certification shall identify the times and durations of all periods during process or control operation when the monitoring device is not working, as recorded pursuant to paragraph (K)(5) of this rule.

(c) For any capture system bypass line, the compliance certification shall identify the times and durations of all periods in which the captured VOC emissions were discharged to atmosphere instead of a control device, as recorded pursuant to paragraph (K)(5)(f) of this rule and the reasons for the discharges to atmosphere.

(d) The compliance certification shall state that the overall reduction of VOC emissions, based on the most recent compliance test conducted in accordance with paragraph (J) of this rule, has met the overall reduction of VOC emissions required under paragraph (D)(3) for each topcoat and sealer designated for control during the semiannual reporting period, or should otherwise identify the periods of noncompliance and the reasons for noncompliance.

(iv) For any finishing operation that is equipped with a VOC emission control system to comply with paragraph (D)(4)(a) or (D)(5)(a) of this rule, the compliance certification shall contain the information specified under paragraphs (L)(3)(e)(iii)(a) through (L)(3)(e)(iii)(c) of this rule.

(v) For finishing operations that are subject to the daily VOC emissions

limit under paragraph (D)(4) or (D)(5) of this rule, the compliance certification shall state that the daily actual VOC emissions did not exceed the daily VOC emissions limit for the finishing materials selected for inclusion in the daily VOC emissions limit for each operating day during the semiannual reporting period, or should otherwise identify for each day of noncompliance the daily actual VOC emissions, the daily VOC emissions limit, the finishing materials selected for inclusion in the daily VOC emissions limit, and the reasons for noncompliance.

(vi) For any wood furniture manufacturing operation subject to paragraph (E) of this rule for strippable spray booth materials, the compliance certification shall state that compliant coatings for strippable spray booth materials have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant coatings for strippable spray booth materials were used.

(vii) For wood furniture manufacturing operations subject to the work practice requirements of paragraph (F) of this rule, the compliance certification shall state that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented.

(viii) The compliance certification shall identify and describe any corrective actions considered and implemented for any noncompliance being reported in the compliance certification.

(ix) The compliance certification shall be signed by a responsible official of the company that owns or operates the wood furniture manufacturing operations.

(M) Special provisions for owners or operators electing to use emissions averaging.

(1) The owner or operator of wood furniture manufacturing operations electing to comply with the daily VOC emissions limit in paragraph (D)(4) or (D)(5) of this rule shall submit to the director for approval a plan addressing the following provisions:

(a) Program goals and rationale as follows:

(i) Provide a summary of the reasons why the owner or operator of wood furniture manufacturing operations would like to comply with the VOC emission limitations through the procedures established in paragraph (D)(4) or (D)(5) of this rule.

(ii) Provide a summary of how averaging can be used to meet the VOC emission limitations.

(iii) Document that the additional environmental benefit requirement is being met through the use of the equations in paragraph (D)(4) or (D)(5) of this rule. These equations ensure that the wood furniture manufacturing operations achieve an additional ten percent (10%) reduction in emissions when compared to wood furniture manufacturing operations using a compliant coatings approach to meet the requirements of the rule.

(b) Program scope as follows:

(i) Include the types of finishing materials that will be included in the wood furniture manufacturing operations' averaging program.

(ii) Stains, basecoats, washcoats, sealers, and topcoats may be used in the averaging program.

(iii) Finishing materials that are applied using continuous coaters may only be used in an averaging program if the owner or operator of the wood furniture manufacturing operations can determine the amount of finishing material used each day.

(c) For program baseline, each finishing material included in the averaging program shall be the lower of the actual or allowable emission rate as of the effective date of this rule.

(d) Quantification procedures as follows:

(i) Describe how emissions and changes in emissions will be quantified, including methods for quantifying usage of each finishing material. Quantification procedures for VOC content are included in paragraph (I) of this rule.

(ii) Quantification methods used shall be accurate enough to ensure that the wood furniture manufacturing operations' actual emissions are less than the allowable emissions, as calculated using the equations in paragraph (D)(4) or (D)(5) of this rule, on a daily basis.

(e) Monitoring, record keeping, and reporting as follows:

(i) Provide a summary of the monitoring, record keeping, and reporting procedures that will be used to demonstrate daily compliance with the equations presented in paragraph (D)(4) or (D)(5) of this rule.

(ii) Monitoring, record keeping, and reporting procedures shall be structured in such a way that the Ohio EPA or its delegated local air agency and owners or operators of the wood furniture manufacturing operations can determine compliance status for any day.

(2) Pending approval by the director and the USEPA of the proposed emissions averaging plan, the owner or operator shall continue to comply with the requirements of this rule.

(N) Requirements on applicability notification and permit application.

(1) The owner or operator of a facility that is subject to this rule and that has an initial startup of wood furniture manufacturing operations before the effective date of this rule shall notify the Ohio EPA or its delegated local air agency in writing that the facility is subject to this rule. The notification, which shall be submitted not later than 60 days after the effective date of this rule, shall provide the following information:

(a) name and address of the owner or operator;

(b) address (i.e., physical location) of the facility;

(c) equipment description and Ohio EPA application number (if assigned) of any wood furniture manufacturing operations;

(d) identification of the applicable requirements, the means of compliance, and the compliance date for the wood furniture manufacturing operations under this rule;

(e) regarding a permit for wood furniture manufacturing operations, whichever of the following is applicable;

(i) submission of an application for a permit to operate or modification of a permit to operate in accordance with rule 3745-35-02 of the Administrative Code; or

(ii) statement of intent to submit an application for a title V permit or modification of a title V permit in accordance with rule 3745-77-02 or rule 3745-77-06 of the Administrative Code, respectively.

(2) The owner or operator of a facility that is subject to this rule and that has an initial startup of wood furniture manufacturing operations on or after the effective date of this rule shall notify the Ohio EPA or its delegated local air agency in writing that the facility is subject to this rule. The notification,

which shall be submitted not later than either the date of initial startup of the facility or 60 days after the effective date of this rule (whichever is later), shall provide the information listed under paragraph (N)(1) of this rule. The application for a permit to install under rule 3745-31-02 of the Administrative Code may be used to fulfill the notification requirements of this paragraph.

Effective:

R.C. 119.032 review dates:

_____

Certification

_____

Date

Promulgated Under:	119.03
Statutory Authority:	3704.03
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