

3745-33-07 **Establishing permit conditions.**

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules and federal statutory provisions referenced in this rule, see rule 3745-33-01 of the Administrative Code.]

- (A) Establishing final permit conditions for physical and chemical specific parameters. Final effluent limitations and monitoring requirements shall be established in an NPDES permit in accordance with this rule and the reasonable potential recommendations determined pursuant to rule 3745-2-06 of the Administrative Code. The director may impose additional terms and conditions as part of an NPDES permit as are appropriate or necessary to ensure compliance with the applicable laws and to ensure adequate protection of water quality.
- (1) Final effluent limitations shall be required for pollutants that meet any of the following conditions:
- (a) Pollutants assigned to group five of the pollutant assessment;
 - (b) Pollutants that are treatment plant design parameters; or
 - (c) Pollutants that are subject to effluent limitations established under sections 301, 306 and 307 of the act.
- (2) Final effluent monitoring shall be required for pollutants assigned to group four of the pollutant assessment. In addition, the permit shall include a tracking mechanism for all group four parameters with a projected effluent quality (PEQ) equivalent to or exceeding seventy-five per cent of the PEL. The tracking language shall contain the following:
- (a) Projected effluent limit (PEL) values for applicable parameters;
 - (b) Requirements for the permittee to notify Ohio EPA in writing within thirty days of an effluent concentration sample result greater than the PEL. Written notification shall detail the reasons for the level being above the PEL and for expectation of continued levels above the PEL;
 - (c) Requirements for the permittee to reduce discharge levels to below the PEL within six months if either of the following conditions are met:
 - (i) The maximum detected concentration per month is greater than the maximum PEL for four or more months during a consecutive six month period; or

- (ii) The thirty-day average for any pollutant is greater than the average PEL for two or more months during a consecutive six month period; and
 - (d) If the permittee cannot reduce discharge levels within six months to below the PEL, the permittee may request to modify the permit to contain a compliance schedule. This request shall contain a justification for the additional time necessary to reduce discharge levels.
- (3) Pollutant monitoring for pollutants in groups one, two or three of the pollutant assessment may be specified by the director.
 - (4) Final effluent monitoring for dioxin shall be required for a minimum of twelve months when detectable levels of pentachlorophenol are present in the effluent.
 - (5) The director may make exceptions to the effluent limitations under paragraph (A)(1) of this rule if the data used to determine the PEQ are invalid or unrepresentative.
 - (6) The director may make exceptions to the monitoring requirements under paragraph (A)(2) of this rule after consideration of other relevant factors including, but not limited to, the frequency of occurrences and variability of the levels of pollutants.
 - (7) The director may establish water quality-based effluent limits (WQBELs) that represent the sum of all wastestreams containing a pollutant in a discharge or group of discharges under the same NPDES permit, using the wasteload allocation (WLA) and total maximum daily load (TMDL) methods in Chapter 3745-2 of the Administrative Code and the reasonable potential procedures in rules 3745-2-06 and 3745-33-07 of the Administrative Code.
 - (8) Additivity of pollutant effects.
 - (a) When a point source discharge is subject to a WQBEL for pollutants considered additive, the permit for that discharge shall contain a limitation on the additivity of the pollutants unless:
 - (i) Effluent limitations needed to meet other state or federal laws or regulations result in limitations more stringent than limitations on the additivity of the pollutants; or
 - (ii) There is no reasonable potential for the additive effects of discharged pollutants to cause or contribute to a lifetime upper bound incremental risk greater than one in one hundred thousand of developing cancer for carcinogens or an appreciable risk of adverse human health effects (e.g. acute, subchronic, or chronic toxicity, or increased reproductive or developmental effects) during a lifetime of exposure for non-

carcinogens. Reasonable potential for additive effects is determined by dividing the PEQ average for each pollutant by the human health wasteload allocation for that pollutant and adding these values for all additive pollutants. If the sum is equal to or greater than 1.0, the permit shall contain a limitation regulating the additivity of these pollutants.

- (b) If a PEL for an additive pollutant is less than the quantification level for that pollutant, the director may remove that pollutant from the consideration of additivity.
- (9) Reasonable potential for noncontact cooling water. For the purposes of this paragraph, "once-through noncontact cooling water" means water used for cooling that does not come into direct contact with any raw material, intermediate product, final product or waste product, not including additives, and makes one or two passes for the purpose of removing waste heat. This paragraph shall not apply to temperature and pH.
- (a) The director shall not impose WQBELs for a discharge consisting solely of once-through noncontact cooling water drawn from the same body of water that the effluent is discharged to as determined under paragraph (C) of rule 3745-2-06 of the Administrative Code, except in the following situations:
 - (i) The director shall require a WQBEL for a pollutant or a whole effluent toxicity (WET) limit when information is available indicating that such a limit is necessary to protect existing or designated uses, unless the discharger is able to demonstrate that the presence of the pollutant or WET is due solely to its presence in the intake water as determined under paragraph (C) of rule 3745-2-06 of the Administrative Code.
 - (ii) The director shall require a WQBEL for a pollutant when the pollutant concentration in the discharge exhibits reasonable potential, is higher than ambient concentrations in the receiving water due to recirculation of the cooling water in the receiving water body, and available information indicates that a limit is necessary to protect existing or designated uses.
 - (iii) The director shall establish a WQBEL or other requirement in the permit for the noncontact cooling water wastestream if biological index measurements or WET measurements indicate that the noncontact cooling water discharge contributes to an impairment of an existing or designated use of the receiving waters.
 - (iv) If a pollutant is present at elevated levels in the noncontact cooling water wastestream due to pollutants entering the cooling system, paragraph (A)(9) of this rule shall not apply to the discharge of pollutants present at elevated levels.

- (v) If the permittee uses or proposes to use additives in the noncontact cooling water wastestream, the director shall evaluate the additives to determine whether there is a reasonable potential for the additive to cause or contribute to an excursion of the water quality standards contained in Chapter 3745-1 of the Administrative Code. The director shall establish permit conditions and/or other requirements for the additives or their ingredients that ensure that Ohio water quality standards are attained.
- (vi) If the source of the noncontact cooling water wastestream is contaminated groundwater, paragraph (A)(9) of this rule does not apply to the discharge of pollutants in the groundwater that exhibit reasonable potential.
- (vii) If the noncontact cooling water is combined with other wastestreams prior to final discharge, the provisions of paragraph (A)(9) of this rule are restricted to the noncontact cooling water wastestream, and WQBELs shall be established on a reasonable potential analysis for the sum of the other wastestreams conducted according to rules 3745-2-06 and 3745-33-07 of the Administrative Code. If other individual wastestreams cannot be practically monitored, the director shall require WQBELs at the final discharge point.
- (viii) The director shall require monitoring of the intake and any other locations necessary to verify and confirm the conclusions about reasonable potential under paragraph (A)(9)(a) of this rule.

(B) Establishing final limitations for whole effluent toxicity.

- (1) The director shall evaluate whole effluent toxicity for a discharge using available data on the factors listed in paragraphs (B)(1)(a) to (B)(1)(d) of this rule and the evaluation matrix in table 1 of this rule to determine whether the discharge has the reasonable potential to cause or contribute to violations of water quality standards contained in Chapter 3745-1 of the Administrative Code. The director shall classify the toxicity hazard of the discharge in one of the four categories listed in table 1 of this rule.
 - (a) The magnitude, frequency and variability of toxicity discharged;
 - (b) The degree and type of near-field and far-field effects in the receiving water as measured by physical, chemical, toxicity or biological index measurements;
 - (c) The quality and quantity of each type of data available; and
 - (d) Other relevant factors.

- (2) When the director determines that the discharge has the reasonable potential to cause or contribute to an exceedance of the water quality standards contained in paragraph (D) of rule 3745-1-04 of the Administrative Code, the discharger shall be classified in hazard category 1 of table 1 of this rule, and the permit shall contain a discharge limitation for toxicity as determined using the procedures in rule 3745-2-09 of the Administrative Code, and any applicable procedures in paragraphs (B)(5) to (B)(10) of this rule.
- (3) For dischargers classified in hazard category 2, the director shall require monitoring with a permit limit for WET that is triggered by events specified in the permit. As an alternative to limits, the director may require the permittee to conduct a plant performance evaluation (PPE). A PPE contains an evaluation of processes, inputs and treatment including but not limited to toxicity pass-through at the treatment plant, chemicals used in the treatment process, and the effect of plant processes or industrial users on WET discharged by the treatment plant.
- (4) When the evaluation from paragraph (B)(1) of this rule using factors in paragraphs (B)(1)(a) to (B)(1)(d) of this rule indicates the discharger is classified in hazard category 3 of table 1 of this rule, the permit shall contain a monitoring requirement.
- (5) Limits for acute toxicity of 1.0 TUa that are based on protecting the inside-mixing-zone water quality standard in paragraph (D) of rule 3745-1-04 of the Administrative Code may be modified if the discharger demonstrates attainment of this water quality standard using one of the following methods:
 - (a) An AIM study approved under rule 3745-2-08 of the Administrative Code;
 - (b) A correlation of effluent and near-field toxicity data for the discharge that indicates that the narrative water quality standard is being attained; or
 - (c) Biological index measurements taken within the area defined in paragraph (I)(1) of rule 3745-2-08 of the Administrative Code that indicate the absence of toxic conditions.
- (6) Demonstrations conducted under paragraph (B)(5)(b) or (B)(5)(c) of this rule shall meet the requirements of paragraphs (C)(4) to (C)(7) and (C)(9) to (C)(13) of rule 3745-2-08 of the Administrative Code. In addition, the director may modify maximum limitations that are approved under paragraph (B)(5)(b) or (B)(5)(c) of this rule using the results of an AIM computer modeling or field study performed in accordance with rule 3745-2-08 of the Administrative Code.
- (7) The director shall review demonstrations under paragraphs (B)(5) and (B)(6) of this rule using the factors in paragraphs (B)(1)(a) to (B)(1)(d) of this rule to

ensure that uses are not impaired by toxicity before approving modified limitations for whole effluent toxicity.

- (8) The director may modify limitations for acute or chronic toxicity that are based on protecting the water quality standard in paragraph (D) of rule 3745-1-04 of the Administrative Code if the discharger reduces effluent toxicity by a substantial amount after the issuance of the effluent limit, and if subsequent biological index measurements indicate the absence of toxic conditions downstream of the discharge or mixing zone, as appropriate.
- (9) The director may modify limitations for acute toxicity for discharges to water bodies designated limited resource water under Chapter 3745-1 of the Administrative Code if the discharger demonstrates that severe habitat degradation prevents the presence of biological communities typically associated with this water body use.
- (10) For the purposes of establishing whole effluent toxicity limitations, the values of 1.0 TU_a and 1.0 TU_c shall be the most restrictive limitations applied in permits. If the ratio of stream design flow to effluent flow is less than 3.3 to 1.0, the director may require special measures to investigate and remediate acute toxicity when an effluent consistently exhibits thirty per cent to fifty per cent mortality in one hundred per cent effluent.
- (11) Minimum monitoring requirements for whole effluent toxicity. These requirements satisfy the application toxicity test requirements in 40 C.F.R. 122.21(j)(5). These requirements do not apply to discharges from facilities that treat only combined sewer overflows.
 - (a) The following testing requirements apply to permits for:
 - (i) Any publicly-owned treatment works (POTW) with design flow rates greater than or equal to one million gallons per day; or
 - (ii) Any POTWs with approved pretreatment programs or POTWs required to develop a pretreatment program.
 - (b) Permits shall contain testing requirements for at least two species.
 - (c) Permits shall contain chronic toxicity testing requirements if the ratio of the downstream or mixing zone dilution is less than twenty to one, according to the procedures in rule 3745-2-09 of the Administrative Code.
 - (d) Permits shall contain acute toxicity testing requirements if the ratio of the downstream or mixing zone dilution is twenty to one or greater, according to the procedures in rule 3745-2-09 of the Administrative Code.

- (e) Where the POTW has two or more outfalls with substantially identical effluent discharging to the same receiving water segment, the director may allow applicants to submit whole effluent toxicity data for only one outfall on a case-by-case basis. The director may also allow applicants to composite samples from one or more outfalls that discharge into the same mixing zone.
- (C) WQBELs below quantification levels. This paragraph shall apply when a water quality based effluent limit for a pollutant is calculated to be less than the quantification level.
- (1) The director shall designate as the limit in the NPDES permit the WQBEL exactly as calculated.
 - (2) Analytical methods, quantification and compliance levels.
 - (a) The permittee shall use the most sensitive analytical procedure currently approved under 40 C.F.R. 136 for each individual pollutant.
 - (b) If the most sensitive analytical procedure in paragraph (C)(2)(a) of this rule changes, resulting in a more sensitive quantification level, the director may issue a compliance schedule to allow the permittee to implement the new quantification level and demonstrate compliance using the revised quantification level or WQBEL, whichever is higher.
 - (c) For the purpose of assessing compliance with an NPDES permit, any value reported below the quantification level shall be considered in compliance with the effluent limit. For the purpose of calculating compliance with average limitations contained in an NPDES permit, compliance shall be determined by taking the arithmetic mean of reported values for a given reporting period and comparing that mean to the appropriate average permit limitation, using zero for any values detected at concentrations less than the quantification level. Arithmetic mean values that are less than or equal to the permit limitation shall be considered in compliance with the effluent limit.
 - (d) The quantification level is defined as the practical quantification level (PQL) except, for discharges to the lake Erie drainage basin, the quantification level shall be the minimum level for analytical procedures that have minimum levels specified in, or approved under, 40 C.F.R. 136.
 - (e) The director may establish PQLs for a pollutant with a listed method in 40 C.F.R. 136 or, if no analytical method for the pollutant has been promulgated under 40 C.F.R. 136, the director may establish a PQL for the pollutant using an appropriate consensus standard or other generally accepted standard for the analytical method; if no such standard exists, the

director may establish a PQL in the permit based on MDLs determined using the procedures in 40 C.F.R. 136, appendix B.

- (f) Discharge-specific quantification levels. Permittees may apply for discharge-specific quantification levels. Discharge-specific quantification levels shall be calculated using the procedures provided in 40 C.F.R. 136, appendix B.
- (3) Permit reopener clause. Ohio NPDES permits shall contain a reopener clause authorizing modification or revocation and reissuance of the permit if new information generated as a result of special conditions included in the permit indicates the presence of the pollutant in the discharge at levels above the WQBEL. Special conditions that may be included in the permit include, but are not limited to, fish tissue sampling, whole effluent toxicity tests, monitoring requirements on internal waste streams, and monitoring for surrogate parameters. Data generated as a result of special conditions can be used to reopen the permit to establish more stringent effluent limits or conditions, if necessary.
- (4) Pollutant minimization program. For discharges to the lake Erie drainage basin, the director shall include a condition in the permit requiring the permittee to develop and conduct a pollutant minimization program in accordance with rule 3745-33-09 of the Administrative Code for each pollutant with a WQBEL below the quantification level.

(D) Variances from water quality standards for point sources.

- (1) Applicability. The director may grant a variance to a water quality standard (WQS, where WQS, for the purpose of paragraph (D) of this rule, means criteria and tier II values adopted in or developed under Chapter 3745-1 of the Administrative Code) which is the basis of a WQBEL included in an NPDES permit. A WQS variance applies only to the permittee requesting the variance and only to the pollutant or pollutants specified in the variance. A variance does not affect, or require the director to modify, the corresponding water quality standard for the water body. All variance requests and approvals must comply with applicable portions of rule 3745-1-05 of the Administrative Code. Paragraph (D) of this rule shall not apply:
 - (a) To any building, structure, facility, or installation from which there is or may be a "discharge of pollutants" (as defined in 40 C.F.R. 122.2), the construction of which commenced after March 23, 1997, unless:
 - (i) Such a discharge occurs as a result of a response or remedial action taken pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, or the Ohio EPA voluntary action program (VAP);

- (ii) WQS or method detection limit(s) are issued, modified, or adopted after the NPDES permit for the discharge is issued;
 - (iii) The discharge results from rerouting all or a portion of an existing permitted discharge to a new discharge point that discharges to the same body of water, and there is a pollutant reduction in the discharge being rerouted;
 - (iv) A new or expanded discharge of bioaccumulative chemicals of concern from a publicly owned treatment works or sewerage system is necessary to prevent or mitigate a public health threat to the community; or
 - (v) The discharge occurs as a result of an overall reduction in emissions of a pollutant from a facility existing as of March 23, 1997 to air, waters of the state or other media to which people or aquatic life are exposed.
- (b) To any source for which an NPDES permit was revoked or not renewed and for which a new NPDES permit has been subsequently issued, except that such a source may be eligible to receive a variance if WQS or method detection limit(s) are issued, modified, or adopted after the source's new NPDES permit is issued;
 - (c) If the variance would likely jeopardize the continued existence of any threatened or endangered species as defined in rule 3745-1-02 of the Administrative Code or result in the destruction or adverse modification of such species' critical habitat; or
 - (d) If WQS will be attained by implementing effluent limits required under sections 301(b) and 306 of the act as defined in rule 3745-33-01 of the Administrative Code and by the permittee implementing cost-effective and reasonable best management practices for nonpoint source control over which the permittee has control.
- (2) Maximum time frame for variances. A WQS variance shall not exceed five years or the term of the NPDES permit, whichever is less, with the exception that a WQS variance may remain in effect beyond the term of the NPDES permit if, at least one hundred eighty days prior to the date of expiration of the NPDES permit, the applicant submits to the director an application for renewal of the NPDES permit, in accordance with Chapter 119. of the Revised Code and paragraph (C) of rule 3745-33-04 of the Administrative Code, and an application for renewal of the variance in accordance with paragraph (D)(8) of this rule. Such a variance shall remain in effect until the director issues a final action on the NPDES permit renewal application unless the application for renewal of the variance is not substantially complete or not submitted within the time required in this paragraph, or unless the permittee did not substantially comply with the

conditions of the existing variance. The director shall review and modify as necessary WQS variances as part of each WQS review pursuant to section 303(c) of the act.

(3) Conditions to grant a variance.

(a) Except as provided in paragraph (D)(10) of this rule, a variance may be granted if the director determines, based on data and information provided by the permittee or data and information independently available to the director, that attainment of the WQS is not feasible because:

- (i) Naturally occurring pollutant concentrations prevent the attainment of the WQS;
- (ii) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the WQS, unless these conditions may be compensated for by the discharge of sufficient volume of effluent to enable WQS to be met;
- (iii) Human-caused conditions or sources of pollution prevent the attainment of the WQS and cannot be remedied, or would cause more environmental damage to correct than to leave in place;
- (iv) Dams, diversions or other types of hydrologic modifications preclude the attainment of the WQS, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the WQS;
- (v) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate cover, flow, depth, pools, riffles, and the like, unrelated to chemical water quality, preclude attainment of WQS; or
- (vi) Controls more stringent than those required by sections 301(b) and 306 of the act would result in substantial and widespread economic and social impact. When evaluating substantial and widespread economic and social impact, the director shall consider, at a minimum, all of the following factors:
 - (a) The costs, cost-effectiveness (measured in dollars per pound equivalent), and affordability of pollutant removal that would result from implementing measures capable of attaining the WQS;
 - (b) The reduction in concentrations and loadings attainable by using measures capable of attaining the WQS;

- (c) Audited financial reports for the previous five years;
 - (d) Average daily flow for the following: total, residential, commercial, industrial, institutional/other, inflow and infiltration;
 - (e) Number of residential customers and non-residential customers served by the facility; and
 - (f) Any information that may indicate conditions in paragraph (D)(3)(a) of this rule for granting a variance; or
 - (ii) For industrial dischargers:
 - (a) General plan including brief description of existing facilities; brief description of lowest cost improvements to attain WQS; capital cost of improvements; total operation and maintenance cost of facility after improvements;
 - (b) Audited annual financial reports for the facility from the most recent five years;
 - (c) Standard industrial classification for facility;
 - (d) Total number of employees and total annual salary/wage/overhead costs; and
 - (e) Any information that may indicate conditions for granting a variance; and
 - (d) A plan of study if the variance is from a WQS for a bioaccumulative chemical of concern (BCC) in the lake Erie drainage basin. The plan of study shall include the following, at a minimum: data documenting the facility's current influent and effluent concentrations for the BCC; a preliminary identification of potential sources; a proposed schedule for evaluating those sources; and a proposed schedule for identifying and evaluating potential reduction, elimination, and prevention methods.
- (5) Public notice of preliminary decision. Upon receipt of a complete application for a variance (or in the case of a variance under paragraph (D)(10) of this rule, the information required by paragraphs (D)(10)(a) and (D)(10)(b) of this rule), and upon making a preliminary decision regarding the variance, the director shall public notice the variance application, the availability of the public record, the availability of the plan of study (if applicable) and the preliminary decision for public comment. For discharges in the lake Erie drainage basin, the other Great Lakes states and tribes shall be notified of the director's preliminary decision. These public notice requirements may be satisfied by including the supporting

information for the variance and the preliminary decision in the public notice of a draft NPDES permit.

(6) Final decision on variance request.

- (a) The director shall issue a variance or propose to deny a variance in accordance with Chapter 119. of the Revised Code. If all or part of the variance is approved by the director, the decision shall include all permit conditions needed to implement those parts of the variance so approved. Such permit conditions shall, at a minimum, require:
- (i) Compliance with an initial effluent limitation that, at the time the variance is granted, represents the level currently achievable by the permittee, and that is no less stringent than that achieved under the previous permit;
 - (ii) That reasonable progress be made toward attaining the WQS for the water body through appropriate permit conditions. If the variance was approved for a BCC in the lake Erie drainage basin or mercury statewide, the permittee shall develop and implement a pollutant minimization program (PMP) consistent with rule 3745-33-09 of the Administrative Code;
 - (iii) When the duration of a variance is shorter than the duration of a permit, compliance with an effluent limitation sufficient to meet the underlying WQS upon the expiration of said variance;
 - (iv) A provision that allows the director to reopen and modify the permit based on any Ohio EPA WQS revisions to the variance; and
 - (v) Such monitoring or analyses as are necessary in order to assess the impact of the variance on public health, safety, and welfare, that may include tests of the amount of the variance parameter in the discharger's influent and effluent, in fish tissue of resident species in the receiving water, and/or in the sediments in the vicinity of the discharge.
- (b) The director shall deny a variance request in accordance with Chapter 119. of the Revised Code if the permittee fails to make the demonstrations required under paragraph (D)(3) of this rule. Permit issuance shall not be affected if the variance is denied. If all, part, or parts of the variance is denied by the director, the decision may include, if necessary, an interim effluent limitation as specified under paragraph (D)(6)(a)(i) of this rule and a compliance schedule to meet final limits, at a minimum.

- (7) Incorporating variance into permit. The director shall establish and incorporate into the permittee's NPDES permit all conditions needed to implement the variance as determined under paragraph (D)(6) of this rule.
- (8) Renewal of variance. A variance may be renewed, subject to the requirements of paragraphs (D)(1) to (D)(7) of this rule. As part of any renewal application, the permittee shall again demonstrate that attaining WQS is not feasible based on the requirements of paragraph (D)(3) of this rule, unless the variance being renewed was approved under paragraph (D)(10) of this rule. For variances approved under paragraph (D)(10) of this rule, the permittee shall, as a part of any renewal application, resubmit the information required under paragraphs (D)(10)(a) and (D)(10)(b) of this rule, the certification required by paragraph (D)(10)(d)(v) of this rule and the permit, as well as a status report on the progress being made in the pollutant minimization program. The permittee's application also shall contain information concerning its compliance with the conditions incorporated into its permit as part of the previous variance. Reasonable progress shall have been made in implementing the pollutant minimization program under the existing permit prior to renewing variances approved under paragraph (D)(9) or (D)(10) of this rule. The director may deny any variance renewal if the permittee did not comply with the conditions of the previous variance.
- (9) Multiple discharger determinations. Where necessary to address widespread WQS nonattainment issues, the director may make determinations about the factors listed in paragraphs (D)(3) and (D)(4) of this rule for a category of dischargers where the director has enough information to determine that variances are necessary for that category according to one or more of the conditions in paragraph (D)(3)(a) of this rule. These determinations and specific application requirements shall be made by rule. Dischargers applying for a variance based on multiple discharger determinations shall submit information demonstrating that the determinations of the director are applicable to the individual discharger.
- (10) The director has determined that the average cost to reduce mercury below twelve ng/l from a waste stream through end-of-pipe treatment is in excess of ten million dollars per pound of mercury removed. The director has determined that requiring removal of mercury by construction of end-of-pipe controls to attain mercury WQS, requiring controls more stringent than those required by sections 301(b) and 306 of the act would result in substantial and widespread social and economic impact. The director may determine whether there are other means by which the permittee could comply with the WQBEL without constructing end-of-pipe treatment based on the information provided by the permittee in the application submitted in accordance with this paragraph. The director has also determined that the increased risk to human health and the environment associated with granting the variance compared with compliance

with the WQS absent the variance, is consistent with the protection of the public health, safety, and welfare.

- (a) The director may grant a variance under paragraph (D)(10) of this rule without giving any additional consideration to the factors specified in paragraphs (D)(3)(a) and (D)(3)(b)(ii) of this rule where the director determines:
 - (i) That an average mercury WQBEL based on the human health or wildlife criteria adopted in Chapter 3745-1 of the Administrative Code would be necessary for a particular permittee to comply with water quality standards in the absence of a variance;
 - (ii) That the permittee is not currently complying with the WQBEL and information available from the application required in paragraph (D)(10)(b) of this rule indicates that there is no readily apparent means of complying with the WQBEL without constructing end-of-pipe controls more stringent than those required by sections 301 (b) and 306 of the act; and
 - (iii) That the discharger is currently able to achieve or projects that it can achieve an annual average mercury effluent concentration of twelve ng/l within five years of the date that the variance is granted. For the purpose of determining eligibility under paragraph (D)(10) of this rule, the annual average mercury effluent concentration shall be the average of the most recent twelve months of effluent data.
- (b) In lieu of complying with the requirements of paragraph (D)(4) of this rule, a discharger seeking a variance under paragraph (D)(10) of this rule shall submit to the director an application containing the following information in writing:
 - (i) A certification that the discharger intends to be subject to the terms of paragraph (D)(10) of this rule;
 - (ii) A description of measures taken to date for mercury reduction or elimination projects;
 - (iii) A plan of study for the identification and evaluation of potential mercury sources and potential methods for reducing or eliminating mercury from the discharger's effluent. The plan of study shall include the following, at a minimum: data documenting the facility's current influent and effluent mercury concentrations; identification of all known mercury sources; a description of current plans to reduce or eliminate known sources of mercury; a preliminary identification of other potential mercury sources; a proposed schedule for evaluating the

mercury sources; and a proposed schedule for identifying and evaluating potential reduction, elimination, and prevention methods;

- (iv) An explanation of the discharger's basis for concluding that there are no readily available means of complying with the WQBEL without construction of end-of-pipe controls; and
 - (v) A demonstration of compliance with the conditions in paragraph (D)(3)(b)(i) of this rule.
- (c) The director shall deny the applicability of paragraph (D)(10)(a) of this rule to a discharger if the discharger fails to fulfill the requirements specified in paragraphs (D)(10)(a) and (D)(10)(b) of this rule.
- (d) If the conditions of paragraphs (D)(10)(a) and (D)(10)(b) of this rule are met, the director shall issue the variance and incorporate the following requirements, at a minimum, into the discharger's NPDES permit:
- (i) All conditions required under paragraph (D)(6)(a) of this rule;
 - (ii) A requirement that the discharger's average mercury effluent concentration as defined in paragraph (D)(10)(a) of this rule must remain less than or equal to twelve ng/l after the date specified in the discharger's accepted plan of study for the requirements under this paragraph to be applicable. The requirements of paragraph (D)(10)(f) of this rule shall be included in the permit;
 - (iii) Permit conditions needed to implement the plan of study submitted under paragraph (D)(10)(b)(iii) of this rule;
 - (iv) A requirement that the discharger use an approved USEPA analytical method that is capable of quantifying the applicable water quality standard; and
 - (v) A requirement that upon completion of the actions identified in the plan of study and in the PMP required by paragraph (D)(6)(a)(ii) of this rule, the permittee shall submit to the director a certification that all permit conditions imposed to implement the plan of study and PMP have been satisfied and shall include in this certification a statement as to whether compliance with the WQBEL has been achieved and can be maintained. This certification shall be accompanied by the following:
 - (a) All available data documenting the discharger's current influent and effluent mercury concentrations;

discharger demonstrates to the satisfaction of the director that the mercury level in the discharger's effluent exceeds twelve ng/l due primarily to the presence of mercury in discharger's intake water.

- (11) All variances and supporting information shall be made available by the director to the USEPA region V office after the date of the final variance decision.
- (12) WQS revisions. All variances shall be distributed with Chapter 3745-1 of the Administrative Code and shall be made available upon request to all interested parties. The distributed information shall include at a minimum: the discharger receiving the variance; the term (beginning and ending dates) of the variance; the water body or water bodies affected by the variance; the pollutants affected by the variance; and the modified allowable ambient concentration values for those pollutants.

Table 1. Criteria for potential environmental hazard categories

Attribute Evaluated	Hazard Category 1	Hazard Category 2	Hazard Category 3	Hazard Category 4
Degree of toxicity problem	Adequately Documented	Strongly Suspected	Possible	None
(A) Effluent toxicity				
.....(1) Minimum number of tests (Actual number ___)	3	1	0 or 1	0 or 1
.....(2) Per cent of tests greater than WLA (Actual per cent ___)	greater than 30	20 to 30	10 to 20	less than 10
.....(3) Effluent geometric mean TU TUa (___) TUc (___)				
.....(4) Average exceedance ¹				
.....(a) Without paragraph (B) and (C) of this table available				
.....(i) Acute ²	greater than 0.3	greater than or equal to 0.3	greater than or equal to 0.2	less than 0.2
.....(ii) Chronic	greater than 0.3 x WLA	greater than or equal to 0.3 x WLA	greater than or equal to 0.2 x WLA	less than 0.2 x WLA
.....(b) With paragraph (B) or (C) of this table available				
.....(i) Acute ²	greater than 0.5	greater than or equal to 0.3	greater than or equal to 0.3	less than 0.3
.....(ii) Chronic	greater than 0.67 x WLA	greater than or equal to 0.5 x WLA	greater than or equal to 0.5 x WLA	less than 0.5 x WLA
.....(5) Maximum TU value				
.....(a) Without paragraph (B) and (C) of this table available	greater than or equal to 3 x WLA	greater than or equal to 1 x WLA	greater than or equal to 1 x WLA	less than 1 x WLA
.....(b) With paragraph (B) or (C) of this table available and	greater than 1 x WLA	greater than or equal to	greater than or	less than 0.5 x

confirming toxic impact		1 x WLA	equal to 0.5 x WLA	WLA
(B) Near-field impact				
.....(1) Mortality within mixing zone ³	greater than or equal to 20%	less than or equal to 20%	less than to equal to 20%	less than 20%
.....(2) Stream community impact within mixing zone				
.....(a) Implied chemically ⁴	greater than or equal to 3 x IMZM	greater than or equal to 1.5 x IMZM	greater than or equal to IMZM	less than or equal to 0.5 x IMZM
.....(b) Implied toxicologically ⁴	greater than or equal to 1.0 TUa	greater than or equal to 1.0 TUa	greater than or equal to 1.0 TUa	less than 1.0 TUa
.....(c) Measured biologically	Toxic or severe unknown signature	Fair/poor community	Slight impact or unknown impact signature	None or non-toxic signature
(C) Far-field impact				
.....(1) Aquatic life use impairment (Ohio EPA biological criteria)	Yes ⁵	Yes or partial ⁵	Partial	None or non-toxic signature
.....(2) Stream community impact				
.....(a) Implied toxicologically ³	Significant effect	Significant effect	Unknown or slight effect	None
.....(3) Other indicators	Stress indicated	Stress indicated	Stress indicated	No stress

¹ Compare (per cent exceedances x geometric mean TU) to table factor.

² Use 0.3 x WLA for situations where AIM exists.

³ Results of ambient toxicity test are not binding or required for classification as to category but, if available, will be interpreted under the weight of evidence principle giving due consideration as to sampling location and conditions.

⁴ Based on effluent data. May not be appropriate for situations where AIM exists.

⁵ Lack of attainment due to toxic, complex or unidentifiable type of impact.

Effective: 6/7/2011

R.C. 119.032 review dates: 11/30/2010 and 6/7/2016

Promulgated Under: R.C. 119.03

Statutory Authority: R.C. 6111.03, 6111.031, 6111.13

Rule Amplifies: R.C. 6111.03

Prior Effective Dates: 12/30/1973, 10/31/1997, 12/30/2002,
4/1/2007