MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

PART 18. PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

R 336.2823 Actuals plantwide applicability limits (PALs).

Rule 1823. (1) The following definitions apply to the use of actuals PALs consistent with this rule. If a term is not defined in these paragraphs, it shall have the meaning given in R 336.2801 or R 336.1101 to R 336.1127.

(a) “Actuals PAL for a major stationary source” means a PAL based on the baseline actual emissions of all emissions units at the major source that emit or have the potential to emit the PAL pollutant.

(b) “Allowable emissions” means allowable emissions as defined in R 336.2801, except as this definition is modified by the following:

(i) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.

(ii) An emissions unit's potential to emit shall be determined using the definition in R 336.2801, except that the words "or enforceable as a practical matter" should be added after "federally enforceable."

(c) “Small emissions unit” means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in R 336.2801 or in the clean air act, whichever is lower.

(d) “Major emissions unit” means either of the following:

(i) Any emissions unit that emits or has the potential to emit 100 tons per year or more of the PAL pollutant in an attainment area.

(ii) Any emissions unit that emits or has the potential to emit the PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant as defined by the clean air act for nonattainment areas.

(e) “Plantwide applicability limitation” or “PAL” means an emission limitation expressed in tons per year, for a pollutant at a major stationary source that is enforceable as a practical matter and established source-wide in accordance with this rule.

(f) “PAL effective date” means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(g) “PAL effective period” means the period beginning with the PAL effective date and ending 10 years later.

(h) “PAL major modification” means, notwithstanding the definitions for major modification and net emissions increase, any physical change in or change in the method of operation of the PAL major source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.

(i) “PAL permit” means the permit to install issued under R 336.1201(1)(a) or R 336.1214a that establishes a PAL for a major stationary source.

(j) “PAL pollutant” means the pollutant for which a PAL is established at a major stationary

source.

(k) “Significant emissions unit” means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level, as defined in R 336.2801 or in the clean air act, whichever is lower, for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit.

(2) The following provisions describe the applicability of other federal regulations to major sources with PALs:

(a) The department may approve the use of an actuals PAL for any existing major stationary source if the PAL meets all of the requirements of this rule. The term "PAL" shall mean "actuals PAL" in this rule.

(b) Any physical change in or change in the method of operation of a major stationary source that maintains its total source- wide emissions below the PAL level, meets the requirements of this rule, and complies with the PAL permit. If the change complies with the PAL permit, then the following statements apply:

(i) The change is not a major modification for the PAL pollutant.

(ii) The change does not have to otherwise be approved under prevention of significant deterioration of air quality regulations or new source review for major sources in nonattainment areas regulations.

(iii) The change is not subject to R 336.2818(2), restrictions on relaxing enforceable emission limitations that the major stationary source used to avoid applicability of the major new source review program.

(c) Except as provided under subdivision (b)(iii) of this subrule, a major stationary source shall continue to comply with all applicable federal or state requirements, emission limitations, and work practice requirements that were established before the effective date of the PAL.

(3) As part of a permit application requesting a PAL, the owner or operator of a major stationary source shall submit the following information to the department for approval:

(a) A list of all emissions units at the major source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the major source shall indicate which, if any, federal or state applicable requirements, emission limitations, or work practices apply to each unit.

(b) Calculations of the baseline actual emissions with supporting documentation. Baseline actual emissions shall include emissions associated not only with operation of the unit, but also emissions associated with startup, shutdown, and malfunction.

(c) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by subrule (13)(a) of this rule.

(4) The following requirements establish PALs:

(a) The department may establish a PAL at a major stationary source, provided that, at a minimum, the following requirements are met:

(i) The PAL shall impose an annual emission limitation in tons per year that is enforceable as a practical matter, for the entire major stationary source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL, a 12-month average rolled monthly. For each month during the first 11 months from the PAL effective date, the major stationary source owner or operator shall show that the sum of the preceding monthly

emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.

(ii) The PAL shall be established in a PAL permit that meets the public participation requirements in subrule (5) of this rule.

(iii) The PAL permit shall comply with subrule (7) of this rule.

(iv) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.

(v) Each PAL shall regulate emissions of only 1 pollutant.

(vi) Each PAL shall have a PAL effective period of 10 years.

(vii) The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in subrules (12) to (14) of this rule for each emissions unit under the PAL through the PAL effective period.

(b) Emissions reductions of a PAL pollutant that occur during the PAL effective period are not creditable as decreases for emissions offsets unless the level of the PAL is reduced by the amount of the emissions reductions and the reductions would be creditable in the absence of the PAL.

(5) PALs for existing major stationary sources shall be established, renewed, or increased, through a permit to install issued under R 336.1201(1)(a).The department shall provide the public with notice of the proposed approval of a PAL permit and at least a 30-day period for submittal of public comment. The department shall address all material comments before taking final action on the permit.

(6) The following apply to setting the 10-year actuals PAL level:

(a) Except as provided in subdivision (b) of this subrule, the actuals PAL level for a major stationary source shall be established as the sum of the baseline actual emissions of the PAL pollutant for each emissions unit at the major source; plus an amount equal to the applicable significant level for the PAL pollutant as defined in R 336.2801 or the clean air act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only 1 consecutive 24-month period shall be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24- month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shut down after this 24-month period shall be subtracted from the PAL level. The department shall specify a reduced PAL level, in tons per year, in the PAL permit to become effective on the future compliance dates of any applicable federal or state regulatory requirement before issuance of the PAL permit. For example, if the major source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 parts per million oxides of nitrogen to a new rule limit of 30 parts per million, then the permit shall contain a future effective PAL level that is equal to the current PAL level reduced by half of the original baseline emissions of the units.

(b) For newly constructed units, which do not include modifications to existing units, on which actual construction began after the 24-month period, instead of adding the baseline actual emissions as specified in subdivision (a) of this subrule, the emissions shall be added to the PAL level in an amount equal to the potential to emit of the units.

(7) The PAL permit shall contain, at a minimum, all of the following information:

(a) The PAL pollutant and the applicable source-wide emission limitation in tons per year.

(b) The PAL permit effective date and the expiration date of the PAL (PAL effective period).

(c) Specification in the PAL permit that if a major stationary source owner or operator

applies to renew a PAL under subrule (10) of this rule before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the department.

(d) A requirement that emission calculations for compliance purposes include emissions from startups, shutdowns, and malfunctions.

(e) A requirement that, once the PAL expires, the major stationary source is subject to subrule (9) of this rule.

(f) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by subrule (3)(a) of this rule.

(g) A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provisions under subrule (13) of this rule.

(h) A requirement to retain the records required under subrule (13) of this rule on site. The records may be retained in an electronic format.

(i) A requirement to submit the reports required under subrule (14) of this rule by the required deadlines.

(j) Any other requirements that the department determines necessary to implement and enforce the PAL.

(8) All of the following apply to the PAL effective period and reopening of the PAL permit:

(a) The department shall specify a PAL effective period of 10 years.

(b) All of the following apply to reopening of the PAL permit.

(i) During the PAL effective period, the department shall reopen the PAL permit to do any of the following:

(A) Correct typographical and calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL.

(B) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under new source review for major sources in nonattainment areas regulations.

(C) Revise the PAL to reflect an increase in the PAL as provided under subrule (11) of this rule.

(ii) The department may reopen the PAL permit to accomplish any of the following:

(A) Reduce the PAL to reflect newly applicable federal requirements with compliance dates after the PAL effective date.

(B) Reduce the PAL consistent with any other requirement that is enforceable as a practical matter and that the state may impose on the major stationary source under the state implementation plan.

(C) Reduce the PAL if the department determines that a reduction is necessary to avoid causing or contributing to a national ambient air quality standard or PSD increment violation, or to an adverse impact on an air quality related value that has been identified for a federal class I area by a federal land manager and for which information is available to the general public.

(iii) Except for a permit reopening for the correction of typographical and calculation errors that do not increase the PAL level, all reopenings shall be carried out in accordance with the public participation requirements of subrule (5) of this rule.

(9) Any PAL that is not renewed in accordance with subrule (10) of this rule shall expire at the end of the PAL effective period, and the following requirements shall apply:

(a) Each emissions unit, or each group of emissions units, that existed under the PAL shall

comply with an allowable emission limitation under a revised permit established according to both of the following:

(i) Within the time frame specified for PAL renewals in subrule (10)(b) of this rule, the major stationary source shall submit a proposed allowable emission limitation for each emissions unit, or each group of emissions units, if such a distribution is more appropriate as determined by the department, by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under subrule (10)(e) of this rule, the distribution shall be made as if the PAL had been adjusted.

(ii) The department shall determine whether and how the PAL allowable emissions shall be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the department determines is appropriate.

(b) Each emissions unit shall comply with the allowable emission limitation on a 12-month rolling basis. The department may approve the use of monitoring systems, such as source testing and emission factors, other than CEMS, CERMS, PEMS or CPMS to demonstrate compliance with the allowable emission limitation.

(c) Until the department issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under subrule (9)(a)(ii) of this rule, the major source shall continue to comply with a source- wide, multiunit emissions cap equivalent to the level of the PAL emission limitation.

(d) Any physical change or change in the method of operation at the major stationary source shall be subject to major new source review requirements if such change meets the definition of major modification in R 336.2801.

(e) The major stationary source owner or operator shall continue to comply with any state or federal applicable requirements that may have applied either during the PAL effective period or before the PAL effective period, except for those emission limitations that had been established under R 336.2818(2), but were eliminated by the PAL under subrule (2)(b)(iii) of this rule.

(10) l of the following apply to renewal of a PAL:

(a) The department shall comply with subrule (5) of this rule in approving any request to renew a PAL for a major stationary source and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During public review, any person may propose a PAL level for the major source for consideration by the department.

(b) A major stationary source owner or operator shall submit a timely application to the department to request renewal of a PAL. A timely application is one that is submitted at least 6 months before, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.

(c) The application to renew a PAL permit shall contain all of the following information:

(i) The information required in subrule (3)(a) to (c) of this rule.

(ii) A proposed PAL level.

(iii) The sum of the potential to emit of all emissions units under the PAL, with supporting documentation.

(iv) Any other information the owner or operator requests the department to consider in

determining the appropriate level for renewing the PAL.

(d) In determining whether and how to adjust the PAL, the department shall consider the following:

(i) If the emissions level calculated in accordance with subrule (6) of this rule is equal to or greater than 80% of the PAL level, the department may renew the PAL at the same level without considering the factors in subrule (10)(d)(ii) of this rule.

(ii) The department may set the PAL at a level that it determines to be more representative of the major source's baseline actual emissions, or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the major source's voluntary emissions reductions, or other factors as specifically identified by the department in its written rationale.

(iii) Notwithstanding subrule (10)(d)(i) and (ii) of this rule, both of the following shall apply:

(A) If the potential to emit of the major stationary source is less than the PAL, then the department shall adjust the PAL to a level not greater than the potential to emit of the major source.

(B) The department shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with subrule (11) of this rule.

(e) If the compliance date for a state or federal requirement that applies to the PAL major source occurs during the PAL effective period, and if the department has not already adjusted for the requirement, then the PAL shall be adjusted at the time of PAL permit renewal or renewable operating permit renewal, whichever occurs first.

(11) The following shall apply to increasing a PAL during the PAL effective period:

(a) The department may increase a PAL emission limitation only if the major stationary source complies with the following provisions:

(i) The owner or operator of the major stationary source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. The application shall identify the emissions units contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.

(ii) As part of this application, the major stationary source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions units, exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.

(iii) The owner or operator obtains a major new source review permit for all emissions units identified in subrule (11)(a)(i) of this rule, regardless of the magnitude of the emissions increase resulting from them, that is, no significant levels apply. These emissions units shall comply with any emissions requirements resulting from the major new source review process, even though they have also become subject to the PAL or continue to be subject to the PAL.

(iv) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to

emit the PAL pollutant.

(b) The department shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units, assuming application of BACT equivalent controls as determined under subdivision (a)(ii) of this subrule, plus the sum of the baseline actual emissions of the small emissions units.

(c) The PAL permit shall be revised to reflect the increased PAL level under the public notice requirements of subrule (5) of this rule.

(12) The following are monitoring requirements for PALs:

(a) All of the following general provisions are required:

(i) Each PAL permit shall contain enforceable requirements for the monitoring system that accurately determine plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit shall be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by the system shall meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.

(ii) PAL monitoring system shall employ 1 or more of the 4 general monitoring approaches in subdivision (b) of this subrule and shall be approved by the department.

(iii) Notwithstanding paragraph (ii) of this subdivision, the PAL may also employ an alternative monitoring approach that meets paragraph (i) of this subdivision if approved by the department.

(iv) Failure to use a monitoring system that meets the requirements of this rule renders the PAL invalid.

(b) The following are acceptable general monitoring approaches when conducted in accordance with subdivisions (c) to (i) of this subrule:

(i) Mass balance calculations for activities using coatings or solvents.

(ii) CEMS.

(iii) CPMS or PEMS.

(iv) Emission factors.

(c) An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet all of the following requirements:

(i) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit.

(ii) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process.

(iii) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, then the owner or operator shall use the highest value of the range to calculate the PAL pollutant emissions unless the department determines there is site-specific data or a site-specific monitoring program to support another content within the range.

(d) An owner or operator using CEMS to monitor PAL pollutant emissions shall meet both of the following requirements:

(i) CEMS shall comply with applicable performance specifications found in 40 C.F.R. part 60, appendix B, adopted by reference in R 336.2801a.

(ii) CEMS shall sample, analyze, and record data at least every 15 minutes while the

emissions unit is operating.

(e) An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet both of the following requirements:

(i) The CPMS or the PEMS shall be based on current site-specific data demonstrating a correlation between the monitored parameters and the PAL pollutant emissions across the range of operation of the emissions unit.

(ii) Each CPMS or PEMS shall sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the department, while the emissions unit is operating.

(f) An owner or operator using emission factors to monitor PAL pollutant emissions shall meet all of the following requirements:

(i) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development.

(ii) The emissions unit shall operate within the designated range of use for the emission factor, if applicable.

(iii) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the department determines that testing is not required.

(g) A major source owner or operator shall record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.

(h) Notwithstanding the requirements in subdivisions (c) to (g) of this subrule, if an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameters and the PAL pollutant emissions rate at all operating points of the emissions unit, then the department shall do either of the following at the time of permit issuance:

(i) Establish default values for determining compliance with the PAL based on the highest potential emissions reasonably estimated at each unmonitored operating point.

(ii) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameters and the PAL pollutant emissions is a violation of the PAL.

(i) All data used to establish the PAL pollutant shall be revalidated through performance testing or other scientifically valid means approved by the department. Testing shall occur at least once every 5 years after issuance of the PAL.

(13) The PAL permit shall require the following recordkeeping requirements:

(a) Require an owner or operator to retain a copy of all records necessary to determine compliance with this rule and the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.

(b) Require an owner or operator to retain a copy of all of the following records, for the duration of the PAL effective period plus 5 years:

(i) A copy of the PAL permit application and any applications for revisions to the PAL.

(ii) Each annual certification of compliance under the renewable operating permit and the data relied on in certifying compliance.

(14) The owner or operator shall submit semiannual monitoring reports and prompt deviation reports to the department in accordance with the applicable renewable operating permit program.

The reports shall meet the following requirements:

(a) The semiannual report shall be submitted to the department concurrently with the semiannual report required by the renewable operating permit for the stationary source. The report shall contain all of the following information:

(i) The identification of owner and operator and the permit number.

(ii) Total annual emissions in tons per year based on a 12-month rolling total for each month in the reporting period recorded under subrule (13)(a) of this rule.

(iii) All data relied upon, including, but not limited to, any quality assurance or quality control data, in calculating the monthly and annual PAL pollutant emissions.

(iv) A list of emissions units modified or added to the major stationary source during the preceding 6-month period.

(v) The number, duration, and cause of deviations or monitoring malfunctions, other than the time associated with zero and span calibration checks, and any corrective action taken.

(vi) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by subrule (12)(g) of this rule.

(vii) A signed statement by the responsible official, as defined by the applicable renewable operating permit program, certifying the truth, accuracy, and completeness of the information provided in the report.

(b) The major stationary source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where monitoring is not available. A report submitted under R 336.1213(3)(c) shall satisfy the reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the major source's renewable operating permit. The reports shall contain all of the following information:

(i) The identification of owner and operator and the permit number.

(ii) The PAL requirement that experienced the deviation or that was exceeded.

(iii) Emissions resulting from the deviation or the exceedance.

(iv) A signed statement by the responsible official, as defined by the renewable operating permit, certifying the truth, accuracy, and completeness of the information provided in the report.

(c) The owner or operator shall submit to the department the results of any revalidation test or method within 3 months after completion of the test or method.

History: 2006 MR 23, Eff. Dec. 4, 2006