DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

AIR POLLUTION CONTROL

(By authority conferred on the director of the department of environmental quality by sections 5503 and 5512 of 1994 PA 451, MCL 324.5503 and 324.5512, and Executive Reorganization Order No. 1995-18, MCL 324.99903)

PART 15. EMISSION LIMITATIONS AND PROHIBITIONS-MERCURY

R 336.2501 Definitions.

Rule 1501. The following definitions apply to terms used in this part:

(a) "Affected EGU" means any stationary coal-fired electric generating unit serving at any time, since the start-up of a unit's combustion chamber, a generator with nameplate capacity of more than 25 megawatts producing electricity for sale.

(b) "Alternative mercury designated representative" means either of the following:

(i) For an affected EGU, the person who is authorized by the owner and operator to act on behalf of the mercury designated representative in matters pertaining to the rules under the mercury program.

(ii) For the department, the person who is authorized on behalf of the mercury designated representative in matters pertaining to the rules under the mercury program.

(c) "Automated data acquisition and handling system" or "DAHS" means that component of the continuous emission monitoring system (CEMS), or other emissions monitoring system approved for use by the department, designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors, and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units for mercury.

(d) "Boiler" means an enclosed fossil fuel-fired or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

(e) "Bottom-cycling cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.

(f) "Coal" means any solid fuel classified as anthracite, bituminous, subbituminous, or lignite by the American society of testing and materials (ASTM) standard specification for classification of coals by rank D388-77, 90, 91, 95, 98a, or 99.

(g) "Coal-derived fuel" means any fuel (whether in a solid, liquid, or gaseous state) produced by the mechanical, thermal, or chemical processing of coal.

(h) "Coal-fired" means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during any year.

(i) "Coal-fired electric utility steam generating unit" means an electric utility steam generating unit that burns coal, coal refuse, or a synthetic gas derived from coal either exclusively, in any combination together, or in any combination with other fuels in any amount.

(j) "Cogeneration unit" means a stationary, fossil fuel-fired boiler doing both of the following:

(i) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and

(ii) Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after the calendar year in which the unit first produces electricity:

(A) For a topping-cycle cogeneration unit, both of the following apply:

(1) Useful thermal energy not less than 5% of total energy output.

(2) Useful power that, when added to 1/2 of useful thermal energy produced, is not less then 42.5% of total energy input from fossil fuel, if useful thermal energy produced is 15% or more of total energy output, or not less than 45% of total energy input from fossil fuel, if useful thermal energy produced is less than 15% of total energy output.

(B) For a bottoming-cycle cogeneration unit, useful power not less than 45% of total energy input from fossil fuel.

(iii) Provided that the total energy input under paragraphs (ii)(A)(2) and (ii)(B) of this rule shall equal the unit's total energy input from all fuel except biomass if the unit is a boiler.

(k) "Combustion turbine" means both of the following:

(i) An enclosed device comprising a compressor, a combustion, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustion passes through the turbine, rotating the turbine.

(ii) If the enclosed device under paragraph (i) of this rule is combined cycle, any associated heat recovery steam generator and steam turbine.

(l) "Commence operation" means to have begun any mechanical, chemical, or electronic process, including, with regard to a unit, start-up of a unit's combustion chamber.

(m) "Common stack" means a single flue through which emissions from 2 or more units are exhausted.

(n) "Compliance year" means the 12-month rolling time period for which a mercury emission limit is in effect.

(o) "Continuous emission monitoring system" or "CEMS" means the equipment required to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes, using an automated data acquisition and handling system (DAHS), a permanent record of mercury emissions, stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration, as applicable. The following systems are the principal types of CEMS:

(i) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in units of standard cubic feet per hour (scfh).

(ii) A mercury concentration monitoring system, consisting of a mercury pollutant concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of mercury emissions in units of micrograms per dry standard cubic meter (µg/dscm).

(iii) A moisture monitoring system, as defined in 40 C.F.R. §75.11(b)(2), adopted by reference in R 336.1802a, and providing a permanent, continuous record of the stack gas moisture content, in percent water.

(iv) A carbon dioxide monitoring system, consisting of a carbon dioxide concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the carbon dioxide concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of carbon dioxide emissions, in percent carbon dioxide.

(v) An oxygen monitoring system, consisting of an oxygen concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of oxygen, in percent oxygen.

(p) "Electric generating unit" or "EGU" means the following:

(i) Except as provided in paragraph (ii) of this rule, a stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine serving at any time, since the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 megawatts producing electricity for sale.

(ii) For a unit that qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continues to qualify as a cogeneration unit, a cogeneration unit serving at any time a generator with nameplate capacity of more than 25 megawatts and supplying in any calendar year more than 1/3 of the unit's potential electric output capacity or 219,000 megawatt-hour, whichever is greater, to any utility power distribution system for sale. If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity but subsequently no longer qualifies as a cogeneration unit, then the unit shall be subject to paragraph (i) of this rule starting on the day on which the unit first no longer qualifies as a cogeneration unit.

(q) "Existing EGU" means an affected EGU constructed or reconstructed on or before January 30, 2004, and is therefore not a new EGU.

(r) "Generator" means a device that produces electricity.

(s) "Gross electric output" means electricity made available for use, including any electricity used in the power production process, which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls.

(t) "Heat input rate" means the amount of heat input (in million British thermal units) divided by unit operating time (in hours) or, with regard to a specific fuel, the amount of heat input attributed to the fuel (in million British thermal units) divided by the unit operating time (in hours) during which the unit combusts the fuel.

(u) "Input mercury" means the amount of mercury that is contained in the coal, coal-derived fuel, and any other fuel combusted within an electric generating unit.

(v) "Maximum design heat input" means, starting from the initial installation of a unit, the maximum amount of fuel per hour (in Btu/hour)
that a unit is capable of combusting on a steady-state basis as specified by the manufacturer of the unit, or, starting from the completion of any subsequent physical change in the unit resulting in a decrease in the maximum amount of fuel per hour (in Btu per hour, Btu/hour) that a unit is capable of combusting on a steady-state basis, such decreased maximum amount as specified by the person conducting the physical change.

(w) "Mercury designated representative" means either of the following:

(i) For an affected EGU, the person who is authorized by the owner and operator to represent, certify, and legally bind each owner and operator in matters pertaining to the rules under the mercury program.

(ii) For the department, the person who is authorized to represent, certify, and legally bind the department in matters pertaining to the rules under the mercury program.

(x) "Mercury emission control" means equipment installed exclusively to decrease the emissions of mercury from an affected EGU.

(y) "Mercury pretreatment credit" means the percent of mercury removed due to coal washing or cleaning under R 336.2505.

(z) "Michigan mercury permit" means the permit required for affected existing EGUs and new EGUs subject to this part. The permit shall be administered in accordance with R 336.1214 and shall be incorporated into the renewable operating permit as an attachment.

(aa) "Monitoring system" means any monitoring system, including a continuous emissions monitoring system, an alternative monitoring system, or an excepted monitoring system approved by the department.

(bb) "Multi-pollutant compliance demonstration project" means an emission control strategy that achieves significant reductions or that maintains significant reductions in oxides of nitrogen, sulfur dioxide, and mercury using acceptable emission control equipment such as, but not limited to, selective catalytic reduction which is expected to achieve 85 to 90% reduction in oxides of nitrogen and flue gas desulfurization which is expected to achieve 85 to 95% reduction in sulfur dioxide.

(cc) "Nameplate capacity" means starting from the initial installation of a generator, the maximum electrical generating output (in megawatts) that the generator is capable of producing on a steady-state basis and during continuous operation, when not restricted by seasonal or other derates, as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output (in megawatts) that the generator is capable of producing on a steady-state basis and during continuous operation, when not restricted by seasonal or other derates, such increased maximum amount as specified by the person conducting the physical change.

(dd) "New EGU" means an affected EGU constructed or reconstructed after January 30, 2004.

(ee) "Operator" means any person who operates, controls, or supervises an EGU or a stationary source with 1 or more EGUs and shall include, but not be limited to, any holding company, utility system, or plant manager of such unit or stationary source.

(ff) "Output-based emissions standard" means a maximum allowable rate of emissions of mercury per unit of gross electric output from an electric generating unit.

(gg) "Owner" means any of the following persons with regard to an affected EGU or an affected EGU at a stationary source, respectively:

(i) Any holder of any portion of the legal or equitable title in an affected EGU at the stationary source or an affected EGU.

(ii) Any holder of a leasehold interest in an affected EGU at the stationary source or an affected EGU.

(hh) "Reference method" means any direct test method of sampling and analyzing for an air pollutant.

(ii) "Retired unit" means any EGU that has permanently been disabled and no longer has the ability to generate electricity. For the unit to re-start operations, it shall undergo new source review under R 336.1201.

(jj) "Sequential use of energy" means either of the following:

(i) For a topping-cycle cogeneration unit, the use of reject heat from electricity production in a useful thermal energy application or process.

(ii) For a bottoming-cycle cogeneration unit, the use of reject heat from useful thermal energy application or process in electricity production.

(kk) "Source-wide averaging" means the average of all mercury emissions from 2 or more affected EGUs at a single stationary source is less than or equal to the average of the mercury emission limits for the affected EGUs at the stationary source that are participating in averaging.

(ll) "Source-wide pooling" means the sum of all mercury emissions from 2 or more affected EGUs at a single stationary source is less than or equal to the sum of the mercury emission limits for the affected EGUs at the stationary source that are participating in pooling.

(mm) "Submit" means to send or transmit a document, information, or correspondence to the person specified according to the applicable regulation by any of the following:

(i) In person.

(ii) By United States Postal Service.

(iii) By other means of dispatch or transmission and delivery.

Compliance with any "submission" deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

(nn) "Topping-cycle cogeneration unit" means a cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.

(oo) "Total energy input" means, with regard to a cogeneration unit, total energy of all forms supplied to the cogeneration unit, excluding energy produced by the cogeneration unit itself.

(pp) "Total energy output" means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.

(qq) "Unit" means a stationary coal-fired boiler or a stationary coal-fired combustion turbine.

(rr) "Unit operating day" means a calendar day in which a unit combusts any fuel.

(ss) "Unit operating hour or hour of unit operation" means an hour in which a unit combusts any fuel.

(tt) "Useful power" means, with regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process, which includes any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls.

(uu) "Useful thermal energy" means, with regard to a cogeneration unit, thermal energy that is made available to an industrial or commercial process, not a power production process, excluding any heat contained in condensate return or makeup water, and is 1 or both of the following:

(i) Used in a heat application, for example, space heating or domestic hot water heating; or

(ii) Used in a space cooling application, for example, thermal energy used by an absorption chiller.

(vv) "Utility power distribution system" means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.

(ww) "Very low mass emitting unit" or "VLME unit" means an existing EGU that is limited to 9 pounds or less of mercury per 12-month rolling time period.

History: 2009 AACS.

R 336.2502 Adoptions by reference.

Rule 1502. The following ASTM methods are adopted in these rules by reference. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, P.O. Box 30260, Lansing, Michigan 48909-7760, at the cost at the time of adoption of these rules (AQD price). Copies may also be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959; the ASTM website at www.astm.org; or email customer service at service@astm.org; at a cost as of the time of adoption of these rules (ASTM price) as follows:

(a) ASTM D3173-03 (2008), "Standard Test Method for Moisture in the Analysis Sample of Coal and Coke," AQD price $41.00; ASTM price $31.00.

(b) ASTM D3684-01 (2006), "Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method," AQD price $41.00; ASTM price $31.00.

(c) ASTM D4840-99 (reapproved 2004), "Standard Guide for Sampling Chain-of-Custody Procedures," AQD price $53.20; ASTM price $43.20.

(d) ASTM D5865-07a, "Standard Test Method for Gross Calorific Value of Coal and Coke," AQD price $52.00; ASTM price $42.00.

(e) ASTM D6414-01 (2006), "Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Acid Extraction or Wet Oxidation/Cold Vapor Atomic Absorption," AQD price $46.00; ASTM price $36.00.

(f) ASTM D6784-02, "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)," AQD price $52.00; ASTM price $42.00.

(g) ASTM D6911-03 "Standard Guide for Packaging and Shipping Environmental Samples for Laboratory Analysis," AQD price $46.00; ASTM price $36.00.

History: 2009 AACS.

R 336.2503 Mercury emission standards for electric generating units.

Rule 1503. (1) Effective January 1, 2015, an affected existing EGU as defined in this part shall meet either of the following, except as provided for in R 336.2514:

(a) A minimum of 90% reduction from baseline input mercury levels as determined under R 336.2505 on a 12-month rolling average basis as determined at the end of each calendar month.

(b) An output-based emission standard of 0.008 pounds of mercury per gigawatts-hour on a 12-month rolling average basis as determined at the end of each calendar month.

(2) As an alternative to the provisions in subrule (1) of this rule, a multi-pollutant compliance demonstration project for an existing EGU may be implemented. This shall at minimum include the following:

(a) The mercury designated representative of an existing EGU shall submit a multi-pollutant compliance demonstration project plan not later than the end of June, 2 years before the applicable compliance year. The plan shall include, at a minimum, a description of the multi-pollutant emission controls, multi-pollutant emissions data, multi-pollutant emissions reductions, and compliance schedules.

(b) The plan shall be subject to the review and approval of the department. Department approval of an alternative mercury emission standard shall be based on the information submitted. To be approved, the multi-pollutant compliance demonstration project plan must establish a minimum of 75% reduction from baseline input mercury levels on a 12-month rolling average basis as determined at the end of each calendar month for the individual EGU. If the department determines the plan does not meet the definition of a multi-pollutant compliance demonstration project, then the department will make a determination on the plan in writing. If the plan is unacceptable, the department will state the reasons for disapproval and require the existing EGU to comply with the provisions of subrule (1) of this rule.

(3) An existing EGU that is limited to emit 9 pounds (144 ounces) of mercury per 12-month rolling time period as determined at the end of each calendar month as a VLME unit shall be excluded from the provisions in subrule (1) of this rule, provided an alternative compliance demonstration project meeting the criteria of R 336.2513 is implemented. A maximum of 3 existing EGUs at the same stationary source may be VLME units.

(4) Compliance with the provisions of subrules (1) and (3) of this rule may be demonstrated using either of the following methods:

(a) Compliance on an EGU-by-EGU basis.

(b) Stationary source-wide averaging or source-wide pooling of emissions across affected EGUs under control of the same operator or owner.

(5) New EGUs, as defined in R 336.2501(dd), shall not cause or allow the emission of mercury in excess of the maximum allowable emission rate based on the application of best available control technology for mercury. At a minimum, a new EGU shall comply with 90% reduction from input mercury levels on a 12-month rolling average basis as determined at the end of each calendar month or an

output-based emission standard of 0.008 pounds of mercury per gigawatt-hour on a 12-month rolling average basis as determined at the end of each calendar month.

(6) By the end of September, and 2 years before the applicable compliance year, the mercury designated representative for each affected EGU shall submit and certify a compliance demonstration plan to demonstrate compliance with subrules (1), (2), (3), or (5) of this rule. The compliance demonstration plan shall be submitted according to R 336.2509. Adjustments may be made to the compliance method under subrules (1), (2), and (3), and for source-wide averaging or source-wide pooling of EGUs under subrule (4) of this rule up to December 31 before beginning the applicable compliance year via addendum to a certified compliance demonstration plan.

(7) The installation of mercury emission controls shall not be considered a physical change or a change in the method of operation at an affected EGU if the addition of the mercury emission control will not result in emissions that exceed any emission rate otherwise allowable under state or federal requirements.

History: 2009 AACS.

R 336.2504 Stationary source specific mercury emission standards.

Rule 1504. (1) This rule provides for stationary source specific mercury emissions standards.

(2) Lansing board of water and light, eckert power station, units 1, 2, 3, 4, 5, and 6 shall be provided the following extension to the provisions in R 336.2503(1):

(a) Beginning January 1, 2015, Lansing board of water and light, eckert power station, units 1, 2, and 3 shall comply with the VLME unit provisions under R 336.2503(3) and units 4, 5, and 6 shall each receive a mercury emission limit of 19 pounds (304 ounces) per 12-month rolling time period as determined at the end of each calendar month.

(b) Beginning January 1, 2015, the total mercury emission limit for Lansing board of water and light, eckert power station, affected existing EGUs shall be 84 pounds (1,344 ounces) per 12-month rolling time period as determined at the end of each calendar month.

(c) Beginning January 1, 2018, the total mercury emission limit for Lansing board of water and light, eckert power station, affected existing EGUs shall be 57 pounds (912 ounces) per 12-month rolling time period as determined at the end of each calendar month.

(d) Compliance with the mercury emission limits may be demonstrated using stationary source-wide pooling.

(e) Not later than the end of September, 2 years before the applicable compliance year, Lansing Board of water and light eckert power station shall provide verification and certification of their proposed compliance demonstration plan extension using written documentation under R 336.2509.

(3) As an alternative to R 336.2503(1) or (3), the city of Marquette, shiras unit 3, and Michigan south central power agency, endicott unit 1, may request on a case-by-case basis, an alternative mercury standard as follows:

(a) The mercury designated representative of the existing EGU shall submit a demonstration of best available control technology for mercury at an existing EGU not later than the end of June, 2 years before the applicable compliance year. The demonstration shall include, at a minimum, a description of the mercury emission controls, mercury emissions data, and mercury emissions reductions.

(b) The demonstration shall be subject to the review and approval of the department. The department approval of an alternative mercury emission standard shall be based on the information submitted. If the department determines the alternative mercury emission standard does not demonstrate best available control technology for mercury at an existing EGU, then the department may disapprove the plan in writing, stating its reasons for disapproval, and require the existing EGU to comply with R 336.2503(1) or (3).

History: 2009 AACS.

R 336.2505 Baseline and coal analysis for input mercury levels.

Rule 1505. (1) The default baseline coal and fuel analysis for input mercury levels shall be based on the data collected for the 1999 information collection request (ICR) as required by and submitted to the United States environmental protection agency.

(2) The mercury designated representative of an affected EGU complying with this part may submit a coal and other fuel sampling plan to determine alternative input mercury baseline levels for the fuels burned on an annual basis. The coal and other fuel sampling plan shall include sampling for a minimum of 12 months of operation and may include a determination for a mercury pretreatment credit. Both of the following apply:

(a) The coal and other fuel sampling plan is subject to the review and approval of the department. If the department determines the plan does not contain adequate sampling methodologies, then the department may disapprove the plan, state its reasons for disapproval, and require the affected EGU to revert to the baseline as determined under subrule (1) of this rule.

(b) Within 180 days after the department approves a coal and other fuel sampling plan, the mercury designated representative of the EGU shall implement the plan.

(3) If subrule (2) of this rule is utilized for new EGUs, the mercury designated representative may sample to determine the baseline during the first 12 months after commencement of operation provided a coal and other fuel sampling plan is submitted to the department and is acceptable.

History: 2009 AACS.

R 336.2506 Technical extensions to mercury emission standards.

Rule 1506. (1) A mercury designated representative for an affected EGU may request, in writing, a technical extension, as described below, to the provisions in R 336.2503(1) which is effective January 1, 2015. An extension approved by the department will expire on December 31, 2017, or earlier as determined by the department, unless a renewal is granted as specified in subrule (4) of this rule.

(a) The mercury designated representative of an existing EGU shall submit an administratively complete technical extension request not later than the end of June, before the applicable compliance year.

(b) An administratively complete request shall include, at a minimum, information on the mercury emission control technologies installed to comply with R 336.2503(1), mercury stack testing results, cost of correcting the deficiencies in the installed controls, and a proposed compliance program to correct the deficiencies in the installed controls.

(c) In addition, the representative may submit, and the department shall consider, any other relevant information supporting approval of an extension, including, without limitation the following:

(i) A demonstration that further emissions reductions are technically infeasible.

(ii) An analysis that achieving additional mercury reductions beyond those achieved by the installed controls is cost prohibitive.

(iii) Any other relevant information.

(2) The department shall review and may approve an extension request and compliance schedule based on the information submitted. The department may disapprove the extension request, state its reasons for disapproval, and require compliance with R 336.2503(1).

(3) Affected EGUs, using an approved technical extension demonstration, shall demonstrate compliance on an EGU-by-EGU basis.

(4) The mercury designated representative of an existing EGU may petition the department to renew a technical extension granted by subrule (2) of this rule beyond December 31, 2017, as follows:

(a) The petition shall be submitted not later than the end of June, before the applicable compliance year. This renewal is subject to approval by the department. In review of the petition for an extension, the department shall consider the information previously submitted under subrule (1) of this rule and any other relevant information submitted by the mercury designated representative. The renewal shall be for not greater than a 3-year period, subject to review by the department.

(b) The petition shall include an addendum to the compliance demonstration plan in an approved technical extension and demonstrate how the owner failed to meet the compliance demonstration plan and a proposed corrective action plan to meet the provisions in R 336.2503(1).

(5) Not later than the end of December, before the applicable compliance year, a participating EGU shall provide verification and certification to modify its proposed compliance demonstration plan as a technical extension using written documentation under R 336.2509(2), (3), and (4).

(6) A technical extension shall not be issued if it will result in a violation of federal laws or regulations.

History: 2009 AACS.

R 336.2507 Economic extensions to mercury emission standards.

Rule 1507. (1) A mercury designated representative may request, in writing, an economic extension, as described below, to the provisions in R 336.2503(1) which is effective January 1, 2015. An extension approved by the department will expire on December 31, 2017, or earlier as determined by the department, unless a renewal is granted as specified in subrule (4) of this rule.

(a) The mercury designated representative of an existing EGU shall submit an administratively complete economic extension request not later than the end of June, before the applicable compliance year.

(b) An administratively complete request shall include, at a minimum, information on the cost of the mercury emission control technologies proposed to be installed to comply with R 336.2503(1) and a proposed compliance program to install the controls in an optimized timeframe, and include 1 or more of the following:

(i) A demonstration that the cost of the mercury emission control technologies will create significant economic hardship for the owner or its rate payers.

(ii) A demonstration that the mercury emission control technologies proposed to be installed will result in a reasonably foreseeable interruption in power supply and undue risk to the reliability of the electricity supply to the state.

(iii) A demonstration that the mercury emission control technologies proposed to be installed will result in bankruptcy of the owner.

(iv) A commitment to shut down an existing EGU and remove it from service permanently not later than December 31, 2017. The existing EGU proposed for shutdown must meet a minimum of 75% reduction from baseline input mercury levels on a 12-month rolling average basis as determined at the end of each calendar month until shutdown.

(v) Information on a proposed new EGU or EGUs, including construction and commencement of operation time frames, and shutdown date of the existing EGU. The existing EGU or EGUs proposed for shutdown must meet a minimum of 75% reduction from baseline input mercury levels on a 12-month rolling average basis as determined at the end of each calendar month until shutdown, not later than December 31, 2017, unless an extension renewal is granted under subrule (4) of this rule.

(2) The department, in consultation with the Michigan public service commission, shall review and may approve an extension request and compliance schedule based on the information submitted. The department may disapprove the extension request, state its reasons for disapproval, and require compliance with R 336.2503(1).

(3) Affected EGUs, using an approved economic extension demonstration, shall demonstrate compliance on an EGU-by-EGU basis.

(4) The mercury designated representative of an existing EGU may petition the department to renew an extension granted by subrule (1) of this rule beyond December 31, 2017, as follows:

(a) The petition shall be submitted not later than the end of June, before the applicable compliance year. This extension renewal is subject to approval by the department. In review of the petition for an extension renewal, the department shall consider the information previously submitted under subrule (1) of this rule and any other relevant information submitted by the mercury designated representative. The renewal shall be for not greater than a 3-year period, subject to review by the department.

(b) The petition shall include an addendum to the compliance demonstration plan in an approved economic extension and demonstrate how the owner failed to meet the compliance demonstration plan and a proposed corrective action plan to meet R 336.2503(1).

(5) Not later than the end of September, before the applicable compliance year, a participating EGU shall provide verification and certification of its proposed compliance demonstration plan as an economic extension using written documentation under R 336.2509.

(6) An economic extension shall not be issued if it will result in a violation of federal laws or regulations.

History: 2009 AACS.

R 336.2508 Eligibility provisions and prohibitions for mercury program.

Rule 1508. (1) For mercury emissions to be eligible for source-wide averaging or source-wide pooling in a 12-month rolling average basis or time period as determined at the end of each calendar month, the emissions must be generated in the same month.

(2) If source-wide averaging or source-wide pooling is used under R 336.2503(4)(b) in the compliance demonstration plan, the effect of a failure to demonstrate compliance with the cumulative mercury emission limit will be that the compliance status of each EGU must be determined on an individual basis, as if no averaging or pooling plan existed.

(3) Mercury emissions from an affected EGU, under R 336.2503(4), may only be averaged or pooled within a single compliance demonstration plan per 12-month rolling average basis or time period as determined at the end of each calendar month.

(4) Mercury emission limits received as part of an approved multi-pollutant compliance demonstration project, a technical extension demonstration or an economic extension demonstration, and for new EGUs shall not be available for the averaging or pooling methods allowed under R 336.2503(4)(b).

(5) For the Lansing board of water and light, eckert power station affected existing EGUs, the result of a failure to demonstrate compliance with the cumulative mercury emission limit will be that the compliance status of each EGU must be determined on an individual basis, as if no stationary source-wide pooling plan existed under R 336.2504(2)(d).

History: 2009 AACS.

R 336.2509 Mercury compliance demonstration.

Rule 1509. (1) Not later than the end of September, 2 years before the applicable compliance year, the mercury designated representative shall submit the proposed compliance demonstration plan as specified in R 336.2503(6) for all affected EGUs.

(2) For each stationary source containing 1 or more affected EGUs, the submittal shall include all of the following information:

(a) The name and location, by address and county, of the EGUs that will participate in the compliance demonstration plan and where the records are or will be kept.

(b) The name, address, and telephone number of the mercury designated representative providing certification of the compliance demonstration plan.

(c) The emission rates with supporting calculations projected to be achieved by the compliance demonstration plan, in pounds or ounces per compliance year.

(d) Identification of any affected EGUs to be included in a source-wide averaging or source-wide pooling plan.

(e) A brief description of the method or methods used to control mercury emissions.

(3) The submittal shall be accompanied by a certification from the mercury designated representative that, to the best of the mercury designated representative's knowledge, the information contained is true, accurate, and complete.

(4) The compliance demonstration plan submitted to the department shall become a legally enforceable requirement effective January 1 of the applicable compliance year and become an enforceable restriction in the Michigan mercury permit.

History: 2009 AACS.

R 336.2510 Mercury emissions testing, monitoring, recordkeeping, and reporting.

Rule 1510. (1) Compliance with the mercury emission standards for each affected EGU under these rules shall be demonstrated using the testing, monitoring, recordkeeping, and reporting requirements of R 336.2001, R 336.2004, R 336.2104, R 336.2150, R 336.2156, R 336.2157, R 336.2158, R 336.2160, and R 336.1161 using calculation methodologies acceptable to the department.

(2) Performance tests required by subrule (1) of this rule shall be conducted within 60 days following receipt of written notification from the department, unless otherwise authorized by the department.

(a) Performance tests shall be conducted and data reduced according to the reference test methods in R 336.2004.

(b) Not less than 7 days before performance tests are conducted, the mercury designated representative, or his or her authorized agent, shall notify the department, in writing, of the time and place of the performance tests and who shall conduct them. A representative of the department shall have the opportunity to witness these tests.

(c) Results of performance tests shall be submitted to the department in the format prescribed by the applicable reference test method within 60 days after the last date of the test.

(3) Monitoring required by subrule (1) of this rule shall measure mercury emissions with a continuous emission monitoring system; an alternate method described in 40 C.F.R. part 60 or 75, adopted by reference in R 336.1802a, and acceptable to the department; or a method currently in use and acceptable to the department. The following apply:

(a) An owner or operator of an affected EGU shall install, certify, and maintain monitoring not later than January 1, 2015.

(b) An owner or operator of an affected EGU shall comply with the quality assurance procedures in R 336.2157.

(4) Recordkeeping shall include all data and calculations necessary to make compliance determinations in accordance with subrule (1). Such recordkeeping shall be maintained at the EGU or other location and shall be kept in a manner acceptable to the department. The records shall be maintained for not less than 5 years after the date of expiration of the compliance demonstration plan.

(5) Reporting required by subrule (1) of this rule, as specified by the department, shall be submitted to the department as follows:

(a) Beginning April 30, 2015, and 30 days after the end of each calendar quarter thereafter, the mercury designated representative of each affected EGU shall submit a certified compliance report to the department with the following information:

(i) Mercury emissions for the current quarter and total for the 12-month rolling average basis or time period as determined at the end of each calendar month for each EGU.

(ii) Heat input for the current quarter and cumulative heat input for the total 12-month rolling average basis or time period as determined at the end of each calendar month.

(iii) Gross electric output for the current quarter and cumulative output for the 12-month rolling average basis as determined at the end of each calendar month for each EGU that demonstrates compliance using an output-based emission standard.

(iv) Any of the following that applies based on method of compliance:

(A) Calculations used to determine mass emissions based on stack test data.

(B) Calculations used to determine mass emissions based on sorbent trap data.

(C) Alternative methodologies used to determine input mercury levels established under R 336.2505.

(b) In addition, the report shall include the following information using the format in 40 C.F.R. §60.7, adopted by reference in R 336.1802a:

(i) The date, time, magnitude of emissions and emission rates where applicable, of the affected EGU.

(ii) If emissions or emission rates exceed the emissions or rates allowed by the applicable emission limit, the cause, if known, and any corrective action taken.

(iii) The total operating time of the affected EGU during the quarter and
the applicable compliance year.

(iv) For continuous emission monitoring systems, system performance information shall include the date and time of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments. If the continuous monitoring system has not been inoperative, repaired, or adjusted, then that information shall be stated in the report.

History: 2009 AACS.

R 336.2511 Reserved.

History: 2009 AACS.

R 336.2512 Michigan mercury permits.

Rule 1512. (1) The mercury designated representative for each affected EGU under this part shall apply for and receive a Michigan mercury permit for the stationary source.

(a) The mercury designated representative shall apply for a Michigan mercury permit as follows:

(i) By June 20, 2012, or the effective date of this part, whichever is later, the mercury designated representative of any affected EGU shall submit to the department an administratively complete permit application covering each affected EGU.

(ii) The mercury designated representative of any affected new EGU shall submit to the department an administratively complete permit application by the date on which the EGU commences operation.

(b) The mercury designated representative shall submit an administratively complete permit application covering each affected EGU to renew the permit in accordance with the department's renewable operating permit regulations.

(c) An administratively complete permit application shall be submitted using the application forms required by the department. The application shall include all of the following:

(i) Identification of the stationary source.

(ii) Identification of each affected EGU at the stationary source.

(iii) The standard requirements, which include the following:

(A) Permit requirements.

(B) Mercury emission requirements.

(C) Monitoring requirements.

(D) Recordkeeping and reporting requirements.

(2) Each Michigan mercury permit will contain all elements required for a complete permit application under R 336.2512(1)(c).

(3) Each Michigan mercury permit shall be incorporated into the renewable operating permit for each stationary source with affected EGUs as an attachment.

(4) The term of the Michigan mercury permit will be set, as necessary, to facilitate coordination of the renewal of the permit with issuance, revision, or renewal of the renewable operating permit for each stationary source with affected EGUs.

(5) The Michigan mercury permit portion of the renewable operating permit shall be administered and enforced in accordance with the department's renewable operating permit regulations under R 336.1214.

(6) The mercury emission limit as specified in the written notification provided under R 336.2503, if applicable, shall become an enforceable requirement of the Michigan mercury permit.

History: 2009 AACS.

R 336.2513 Alternative compliance demonstration project for VLME units.

Rule 1513. (1) Existing EGUs that qualify as VLME units shall implement an approved alternative compliance demonstration project under R 336.2503(3) as approved by the department in lieu of complying with the requirements under R 336.2503(1), effective January 1, 2015. Both of the following apply:

(a) The mercury designated representative of a VLME unit shall submit a plan for alternative compliance demonstration projects not later than the end of June, 2 years before the applicable compliance year. The plan shall include, at a minimum, a description of the alternative mercury reduction/management systems, community outreach and education programs, project goals or reduction targets, and compliance tracking systems. A demonstration project of a mercury-specific emission control technology that has been implemented 3 years prior to January 1, 2015 may qualify as the minimum plan requirement.

(b) The plan shall be subject to the review and approval of the department. The department may disapprove the plan, state its reasons for disapproval, and require the existing EGU to demonstrate compliance with 1 of the other methods under R 336.2503(1) or (2) for the applicable compliance year.

(2) The mercury designated representative shall submit an annual progress report regarding the alternative compliance demonstration projects for each participating EGU not later than February 2

following each compliance year. The progress records shall be kept in a format acceptable to the department. All records shall be kept on file for a period of at least 5 years and made available to the department upon request.

(3) In addition, not later than the end of September, 2 years before the applicable compliance year, the mercury designated representative shall submit a compliance demonstration plan as required under R 336.2509.

History: 2009 AACS.

R 336.2514 Mercury program expiration.

Rule 1514. (1) Rule 336.2503 shall expire when the United States Environmental Protection Agency (U.S.EPA), pursuant to authority under the federal Clean Air Act, 42 USC 7401 et seq., publishes a final rule in the Federal Register that is legally enforceable for the control of mercury emissions from affected coal-fired electric generating units (EGUs) that require, at a minimum, either of the following no later than January 1, 2015: 90% reduction from baseline input mercury levels or an output-based emission standard of 0.008 pounds of mercury per gigawatt-hour on a 12-month rolling average basis as determined at the end of each calendar month or a multi-pollutant compliance demonstration project that must establish a minimum of 75% reduction from baseline input mercury levels on a 12-month rolling average basis as determined at the end of each calendar month for an individual EGU, and for New EGUs shall not cause or allow the emission of mercury in excess of the maximum allowable emission rate based on the application of best available control technology for mercury. At a minimum, a new EGU shall comply with 90% reduction from input mercury levels on a 12-month rolling average basis as determined at the end of each calendar month or an output-based emission standard of 0.008 pounds of mercury per gigawatt-hour on a 12-month rolling average basis as determined at the end of each calendar month.

(2) Determination of U.S. EPA promulgated rule meeting the requirements of R 336.2514 shall be based on using either of the following methods:

(a) Compliance on an EGU-by-EGU basis.

(b) Stationary source-wide averaging or source-wide pooling of emissions across affected EGUs under control of the same operator or owner.

History: 2009 AACS.

Editor's Note: An obvious error in R 336.2514 was corrected at the request of the promulgating agency, pursuant to Section 56 of 1969 PA 306, as amended by 2000 PA 262, MCL 24.256. The rule containing the error was published in Michigan Register, 2009 MR 20. The memorandum requesting the correction was published in Michigan Register, 2009 MR 23.