



February 18, 2019

**BOARD OF DIRECTORS**

**SUSAN DAVIDSON**  
President  
*Madison*

**DAVE CLAUSEN**  
Vice President  
*Amery*

**DAN COLLINS**  
*Sturgeon Bay*

**TOM DAWSON**  
*Madison*

**MAUREEN FREEDLAND**  
*La Crosse*

**JIM GOODMAN**  
*Wonewoc*

**ALANA MCKEEVER**  
*Madison*

**WILLIAM H. LYNCH**  
*Milwaukee*

**MELISSA SCANLAN**  
Founder  
*Norwich, VT*

**KELLY PARKS SNIDER**  
*Madison*

**GORDON STEVENSON**  
Secretary  
*Black Earth*

**STEPHANIE TAI**  
*Madison*

**DAVID WERNECKE**  
Treasurer  
*Baraboo*

**ARLEN CHRISTENSON**  
Emeritus Board Member  
*Madison*

**STAFF**

**KIMBERLEE WRIGHT**  
*Executive Director*

**SARAH GEERS**

**TRESSIE KAMP**

**JACKLYN BRYAN**

**ROBERT D. LEE**

**PEG SHEAFFER**

**LAUREN RUDERSDORF**

**RY CARPENTER**

**JODI HABUSH SINYKIN**  
*Of Counsel*

Jason Knutson  
Wisconsin Department of Natural Resources  
101 S. Webster St. PO Box 7921  
Madison, WI 53707  
[Jason.Knutson@wisconsin.gov](mailto:Jason.Knutson@wisconsin.gov)

Re: Comments on Proposed Water Quality Standards Variance for Wisconsin Electric Power Company Oak Creek Power Plant and Elm Road Generating Station, Draft WPDES Permit No. WI-0000914-08-0

Dear Mr. Knutson,

The enclosed comments on the Wisconsin Department of Natural Resources' proposal to grant the Wisconsin Electric Power Company Oak Creek Power Plant and Elm Road Generating Station a variance from the wildlife criterion for mercury are being submitted on behalf of Midwest Environmental Advocates.

Please feel free to contact Rob Lee at (608) 251-5047 ext. 8 or [rlee@midwestadvocates.org](mailto:rlee@midwestadvocates.org) to discuss any questions or concerns you may have about our comments.

Sincerely,

/s/  
Robert D. Lee  
Attorney / Shaffer Fellow

Laina Stuebner  
Law Clerk

**MIDWESTADVOCATES.ORG**

**Comments on Proposed Water Quality Standards Variance for Wisconsin Electric Power Company Oak Creek Power Plant and Elm Road Generating Station Draft WPDES Permit No. WI-0000914-08-0**

DNR's proposal to grant the Wisconsin Electric Power Company Oak Creek Power Plant and Elm Road Generating Station (hereafter Oak Creek) a variance from the wildlife criterion for mercury fails to comply with Environmental Protection Agency (EPA) and Wisconsin Department of Natural Resources (DNR) regulations for several reasons. First, DNR has failed to document a sufficient justification for the variance, relying almost exclusively on an outdated 1997 Ohio EPA analysis on the cost of pollution control technologies. Second, DNR has failed to comply with EPA regulations for establishing the highest attainable condition (HAC) that can be achieved during the term of the variance. DNR's application of the regulations for establishing the HAC has resulted in noncompliance because DNR did not evaluate whether there are additional feasible pollutant control technologies that would enable Oak Creek to make progress towards meeting the water quality standard (WQS) during the term of the variance. Third, DNR has failed to show that the term of the variance is only as long as necessary to implement the measures contained in the Pollution Minimization Plan (PMP). Fourth, DNR has failed to make certain findings the Great Lakes Water Quality Initiative Procedures require, specifically that any increased risk the variance causes is consistent with the protection of public health, safety, and welfare. Finally, DNR has failed to review at least once every three years its WQS findings for mercury found in Wis. Admin. Code § NR 106.145(1), which it relies on as justification for numerous criteria in the proposed variance.

**A. DNR has not Justified the Need for the Variance**

In order to obtain EPA approval of a proposed variance, DNR "must demonstrate that attaining the designated use and criterion is not feasible throughout the term of the WQS

variance” based on certain factors set forth in 40 C.F.R. § 131.10(g).<sup>1</sup> EPA regulations make clear that DNR must show the scientific basis supporting a proposed WQS variance. For example, DNR must perform a “use attainability analysis” in order to remove a use, which is defined as a “structured scientific assessment of the factors affecting the attainment of the use.”<sup>2</sup> Further, DNR must adopt water quality criteria “based on sound scientific rationale,”<sup>3</sup> and EPA must review proposed revisions that exclude uses set forth in 33 U.S.C. § 1251(a)(2) to determine whether they are “based upon appropriate technical and scientific data and analyses.”<sup>4</sup>

To justify Oak Creek’s mercury variance, DNR points to the third factor in 40 C.F.R. § 131.10(g), which provides that “[h]uman caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place.”<sup>5</sup> To support this determination, DNR cites Wis. Admin. Code § NR 106.145(1), which includes DNR’s blanket finding that “requiring all dischargers of mercury to remove mercury using wastewater treatment technology to achieve discharge concentrations necessary to meet water quality standards would result in substantial and widespread adverse social and economic impacts.” In its justification, DNR also explains that “the Department intended that [Wis. Admin. Code § NR 106.145(1)] be generally applicable to all dischargers of mercury, which produce large volumes of effluent with already extremely low mercury concentrations” and that “the Department considers treating to produce effluent at concentrations to meet the limit to be technically and economically infeasible.”<sup>6</sup> The only evidence DNR provides to support these justifications is a now decades old study in which the Ohio EPA

---

<sup>1</sup> 40 C.F.R. § 131.14(b)(2)(i)(A).

<sup>2</sup> 40 C.F.R. § 131.3(g).

<sup>3</sup> 40 C.F.R. § 131.11(a).

<sup>4</sup> 40 C.F.R. § 131.5(a)(7).

<sup>5</sup> 40 C.F.R. § 131.10(g)(3).

<sup>6</sup> Variance Data Sheet, § II(O).

estimated the feasibility and costs of pollutant control technologies necessary to attain the levels Wisconsin's mercury water quality criteria require.

Thus, DNR's finding that "[h]uman caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place" is unsupported and based upon an incomplete evaluation of the relevant facts. By relying exclusively on Wis. Admin. Code § NR 106.145(1) and the 1997 Ohio EPA study, DNR has failed to evaluate any site-specific information related to Oak Creek's facilities, what steps Oak Creek would need to take in order to meet the water-quality based effluent limit, or whether Oak Creek could employ "[a]ppropriate mercury source reduction activities."<sup>7</sup> DNR also failed to estimate costs that Oak Creek may incur if required to meet the water-quality based effluent limit or how such costs may affect Oak Creek's customers in the area.

Furthermore, there is no indication that DNR has reevaluated the 1997 Ohio EPA study or the regulatory findings in Wis. Admin. Code § NR 106.145(1) to determine if there has been any advancement in pollutant control technologies over the last two decades that may make treatment cost-effective and feasible. If DNR believes that its findings are still valid, the agency must document and explain its reasoning and decision. EPA regulations reiterate the need for DNR to thoroughly reevaluate WQS variances on a regular basis.<sup>8</sup> As part of this reevaluation, DNR must consider whether conditions have changed, whether new or additional information has become available, and whether feasible progress is being made towards achieving water quality standards. These requirements are designed to ensure that water quality goals are being attained wherever feasible, or if attainment is not immediately feasible, that incremental progress

---

<sup>7</sup> Wis. Admin. Code § NR 106.145(1)(c).

<sup>8</sup> See e.g. 80 Fed. Reg. at 51,037 and 51,039.

towards those goals is being made.<sup>9</sup> The entire purpose of the variance framework, which is to foster that incremental progress towards water quality goals<sup>10</sup>, is undermined where decades-old information is relied upon to justify the need for a variance and there has been no attempt to analyze whether further progress has been or can be made.

Notably, in its most recent triennial review DNR acknowledged that it relies on the 1997 Ohio EPA study for mercury variances and that an updated mercury variance process “would include an updated justification for variances.”<sup>11</sup> DNR also acknowledged that updating its mercury variance process is the agency’s second highest priority.<sup>12</sup> Thus, DNR has essentially admitted that its blanket finding that “treating to produce effluent at concentrations to meet the limit [is] technically and economically infeasible”<sup>13</sup> is outdated. It is unreasonable to continue to apply this blanket finding and to rely on the outdated 1997 Ohio EPA study without reviewing any advances for reducing mercury concentrations that may have occurred since 1997.

Lastly, even if DNR still finds the 1997 Ohio EPA study and the findings in Wis. Admin Code § NR 106.145(1) to be valid, neither of these justifications support DNR’s conclusion that “[h]uman caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place.” DNR does not provide any evidence to support the conclusion that *human caused conditions or sources of pollution* are preventing Oak Creek from treating to produce effluent at concentrations to meet the WQS. Without an explanation from DNR, we can only speculate that DNR’s basis for this conclusion is the ambient mercury concentrations or the coal and combustion products used to generate power at Oak Creek. However, the ambient concentration of Lake Michigan is

---

<sup>9</sup> 80 Fed. Reg. at 51,035.

<sup>10</sup> *Id.*

<sup>11</sup> 2018-2020 TSR Priorities for the Water Quality Standards Program, p.9.

<sup>12</sup> *Id.*

<sup>13</sup> Variance Data Sheet, § II(O).

measured at 0.4 ng/L,<sup>14</sup> well below the wildlife criterion of 1.3 ng/L. That leaves only the coal and combustion products used at Oak Creek as the reason for the variance, which in itself is an insufficient justification.

**B. DNR has Failed to Comply with EPA Regulations for Establishing the Highest Attainable Condition**

In making its “HAC determination,” DNR applied the wrong measure to determine whether there are additional feasible pollutant control technologies that Oak Creek could employ to treat its effluent during the term of the variance. EPA regulations require DNR to identify the HAC that can be achieved during the term of a variance.<sup>15</sup> DNR may, as it has done here, express the HAC as criteria “that reflects the greatest pollution reduction achievable with the pollution control technologies installed at the time the State adopts the WQS variance, and the adoption and implementation of a Pollutant Minimization Program.”<sup>16</sup> However, that option is available only after a demonstration that there are no additional feasible pollutant control technologies is made.<sup>17</sup>

Instead of making this demonstration, DNR relied on Wis. Admin. Code § NR 106.145(1) and the 1997 Ohio EPA study to determine that there are no feasible pollutant control technologies that would allow Oak Creek to meet a limit based on the water quality criteria. This, however, is the benchmark used to determine the need for the variance in the first place. It is not the appropriate benchmark to apply as part of a HAC determination.

DNR’s application of the HAC determination renders superfluous the threshold finding: whether additional feasible pollutant control technologies exist. When DNR makes a HAC determination, it has necessarily determined that there are no additional feasible pollutant control

---

<sup>14</sup> Variance Data Sheet § II(D).

<sup>15</sup> 40 C.F.R. § 131.14(b)(1)(ii).

<sup>16</sup> 40 C.F.R. § 131.14(b)(1)(A)(3).

<sup>17</sup> *Id.*

technologies to meet water quality standards—otherwise the variance would not be needed. In order to comply with EPA regulations, DNR should have evaluated whether there are *additional* feasible pollutant control technologies that would enable Oak Creek to reduce the concentration of mercury in its effluent beyond current levels. This would ensure that Oak Creek is making progress towards compliance with the water quality criteria, even if compliance with the water quality criteria is not feasible at this time. This type of analysis is consistent with one of the overarching goals behind adoption of the WQS variance regulations, which is to “provide[ ] a mechanism to make incremental progress toward the ultimate water quality objective.”<sup>18</sup> Potential additional feasible pollutant control technologies include dry bottom ash handling. But rather than evaluating the feasibility of dry bottom ash handling from the outset as required, DNR improperly proposes to shift that responsibility to the permittee as part of its PMP.<sup>19</sup>

### **C. DNR has not Justified the Term of the Variance**

DNR must submit information to EPA showing that the term of the variance is only as long as is necessary to achieve the HAC.<sup>20</sup> Such documentation must describe the pollutant control activities needed to achieve the HAC, including those activities identified through a PMP, and show that the term of the variance “reflect[s] only the time needed to plan activities, implement activities or evaluate the outcome of activities.”<sup>21</sup>

DNR has failed to provide any support for the five-year variance term. It appears that the term of the variance is tied to the term of the permit and not based on the appropriate amount of time needed to implement the PMP. There does not appear to be any consideration given to the timing of the variance; and therefore, DNR has not met its burden to justify its term.

---

<sup>18</sup> 80 Fed. Reg. 51,035.

<sup>19</sup> Permit Fact Sheet, § 4.4.

<sup>20</sup> 40 C.F.R. 131(b)(2)(ii).

<sup>21</sup> 80 Fed. Reg. at 51,038.

#### **D. DNR has Failed to Follow Great Lakes Water Quality Initiative Procedures**

While state and federal law allow variances to WQSs, such variances must still ensure that the public health, safety, and welfare are all protected. Procedure 2 of the Great Lakes Water Quality Initiative Implementation Procedures requires a permittee seeking a variance to “[c]haracterize the extent of any increased risk to human health and the environment associated with granting the variance compared with compliance with WQS absent the variance, such that the State . . . is able to conclude that any such increased risk is consistent with the protection of the public health, safety and welfare.”<sup>22</sup>

The crucial comparison is the difference between the proposed variance limit and the limit that would be imposed under current water quality standards. In making this comparison, DNR must find that the increased risk associated with that difference still protects public health and welfare. Oak Creek addressed the economic justification for its requested variance, but did not analyze whether the variance still protects public health and welfare. Neither Oak Creek nor DNR has established that the risk associated with allowing a discharge nearly three times the human threshold criterion for mercury is consistent with the protection of the public health, safety, and welfare.

DNR’s finding that “granting the variance in this situation is consistent with protecting the public health, safety and welfare” rests on the assumption that there are “no wastewater treatment technologies capable of reducing mercury concentrations to achieve a 1.3 ng/L effluent limit.”<sup>23</sup> Again, DNR’s blanket finding that there are no available pollutant control technologies is based upon a 1997 Ohio EPA study and the findings established in Wis. Admin. Code § NR 106.145(1). However, the feasibility of such pollutant control technologies does not resolve

---

<sup>22</sup> 40 C.F.R. Appendix F to part 132, Procedure 2 (C)(2)(b).

<sup>23</sup> Variance Data Sheet, § VI(C).

whether the lack of such technologies poses an unacceptable risk to the public health, safety, and welfare. Further, DNR has admitted that the 1997 study is outdated and should not rely on it in finding that Oak Creek’s proposed variance still protects the public health and welfare.

Additionally, as described in more detail below, DNR’s reliance on Wis. Admin. Code § NR 106.145(1) is improper as DNR has not reviewed those findings since 2002. In order to comply with EPA requirements, DNR must find that the variance limit *specific to Oak Creek in comparison to the effluent limit* will protect the public health, safety, and welfare. Relying on blanket, outdated findings does not satisfy this requirement.

**E. DNR has Failed to Review its Water Quality Standard Findings for Mercury**

Federal law requires that DNR, at least every three years, “hold public hearings for the purpose of reviewing applicable water quality standards adopted pursuant to [40 C.F.R.] §§ 131.10 through 131.15 and federally promulgated water quality standards and, as appropriate, modifying and adopting standards.”<sup>24</sup> This provision should be applied to DNR’s finding in Wis. Admin. Code § NR 106.145(1), as it directly modifies WQs that have been adopted pursuant to 40 C.F.R. §131.14 (water quality standard variances). If DNR wishes to rely on Wis. Admin. Code § NR 106.145(1) as justification for the variance, as it does repeatedly, it must review the findings, hold a public hearing for the review, and submit the results of the review to EPA for approval.<sup>25</sup>

---

<sup>24</sup> 40 C.F.R. 131.20(a).

<sup>25</sup> 40 C.F.R. 131.20(c).