



Assembly Committee on the Environment

Clearinghouse Rule 19-105 Cooling Water Intake Structures February 6, 2020

Good morning Chairman Kitchens and members of the Committee. My name is Jason Knutson, and I am the Wastewater Section Chief with the Wisconsin Department of Natural Resources. Thank you for the opportunity to testify on CR 19-105, relating to cooling water intake structures.

The purpose of the proposed rule is to create chapter NR 111, Wis. Adm. Code, to adopt state administrative regulations that are consistent with federal regulations for cooling water intake structures. As a state authorized by EPA to administer the Wisconsin Pollutant Discharge Elimination System (WPDES) program, Wisconsin is required to implement federal Clean Water Act regulations. In July 2011, EPA identified the lack of rules for new facilities with cooling water intake structures as a deficiency in the WPDES program in its legal authority review. The purpose of this rule package is to rectify that deficiency.

The Department currently regulates cooling water intake structures under s. 283.31 (6), Wis. Stats., which generally requires use of the best technology available (BTA) for minimizing adverse environmental impact. Adverse environmental impact generally refers to death of fish, larvae, and eggs due to impingement mortality and entrainment. Impingement means the entrapment of fish or shellfish on the outer part of an intake structure or against a screening structure during water withdrawal. Entrainment means the entrance and passing through into a cooling water intake structure and into a cooling water system, including a condenser or heat exchanger, of entrainable organisms such as fish eggs and larvae. In Wisconsin, the largest individual users of cooling water withdraw as much as 2 billion gallons of water per day, impinge as many as 8.7 million fish and shellfish per year, and entrain as many as 10.7 million fish and 4.7 billion shellfish (including amphipods) per year.

EPA promulgated rules with detailed requirements for use of the best technology available for both new facilities in 2001 (40 CFR 125.80-89) and for existing facilities in 2014 (40 CFR 125.90-98). Each rule also included requirements for submittal of a series of supporting permit application materials under 40 CFR 122.21 (r). Required application materials may include completion of biological studies at some facilities. These requirements are implemented in permits issued under the WPDES program. This proposed rule incorporates both the federal New Facilities Rule and Existing Facilities Rule and associated permit application requirements into Wisconsin's administrative code.

The federal New Facilities Rule establishes national technology-based performance requirements for intake structures at new facilities. The New Facilities Rule requires that cooling water intake systems at new facilities reduce intake flow rates to a level commensurate with or comparable to that which could

be achieved with a closed-cycle recirculating system. Such systems are generally capable of reducing intake flows to approximately 3% of the flow required by a once-through (non-recirculating) cooling water system.

The federal Existing Facilities Rule provides seven best technology available compliance options for minimizing impingement mortality and specifies a set of criteria that must be considered in the entrainment BTA determination for intake structures at existing facilities. Options for compliance with the impingement mortality BTA standard include (1) use of a closed cycle recirculating system, (2) compliance with an intake velocity limit of 0.5 feet per second which allows fish to escape the intake current, (3) use of an offshore velocity cap, (4) use of modified traveling screens that return impinged fish to the source waterbody, and other more flexible options.

In adopting these federal rules, minor clarifications are being made to clarify Wisconsin's plans for implementation of the rules. These include clarification that state endangered resources laws apply and direction as to how these laws may be satisfied, clarification of the point of application for the velocity standard, definition of a list of nuisance species that are exempt from certain rule provisions, and removal of references to marine species and marine intake structures.

These federal rules apply to new and existing facilities that are capable of withdrawing at least 2 million gallons of water per day and that use at least 25 percent of that water exclusively for cooling purposes on a long-term average basis. In Wisconsin, data indicates that there are 28 facilities subject to the rules, but this number is decreasing as several facilities have implemented, or are in the process of implementing, water re-use measures to avoid applicability of the rule. In Wisconsin, the vast majority of facilities subject to the rule are power plants or pulp and paper mills.

During the rule making process, the Department held several meetings with the regulated community to summarize the federal rule requirements, discuss timelines and options for compliance, and seek input on clarifications that could be made in the state's adoption of the federal rules. Information and input from each of these meetings influenced the development of the rule to adopt the federal regulations and clarify areas of uncertainty within the constraints of the federal regulations. Additionally, the Department received twenty unique written comments during the public notice of the rule. The Department made changes to the proposed rule as a result of many of the comments. The Department routinely holds one-on-one meetings with permittees during permit reissuance processes and inspections to discuss plans for compliance and options available to permittees.

The Department is required to issue WPDES permits that are consistent with federal regulations. As a result, many permits have already been issued that incorporate the requirements from the federal cooling water intake rules. This rule implements federal requirements under the Clean Water Act, so the rule itself will not impose any additional economic or fiscal impact beyond what the federal government requirements impose. For this reason, the economic impact of adopting this federal rule language is expected to be minimal, although the promulgation of the federal rule in 2014 is expected to result in economic impacts to permittees as well as use and non-use benefits to the public.

On behalf of the Bureau of Water Quality, I would like to thank you for your time today. I would be happy to answer any questions you may have.