



Regulation Review

Regulation Review: Final Cooling Water Rule

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Today, after a delay of nearly [three months](#), EPA published its final “Cooling Water Intake Structures” rule in the [Federal Register](#). The rule is designed to pr

otect aquatic wildlife from impingement (trapped against screens) and entrainment (caught inside cooling water systems). The regulation is 141 pages.

BREAKDOWN

- [Proposed Rule](#) Annual Costs: \$384 Million
- Final Rule Annual Costs: \$297 Million
- Total Cost Change: (-)\$87 Million
- Final Rule Annual Benefits: \$29 Million

ANALYSIS

EPA gave regulated entities a variety of [options](#) for compliance. First, they can install closed-cycle recirculation, which is the performance standard that will likely lead to the highest declines in aquatic mortality. Second, facilities can ensure that the flow into cooling water systems is less than 0.5 feet per second, although this could still lead to mortality. Third, regulated entities can install traveling screens or collection buckets to ensure that aquatic wildlife never reach cooling water systems. Finally, facilities can still comply if they meet a “specified impingement mortality performance standard.”

With annual costs of \$297 million, the rule easily reaches the “economically significant” threshold (\$100 million annually). In addition, it is one of the few rules issued annually that imposes unfunded mandates on state or private entities. However, beyond the annual figure, the Regulatory Impact Analysis does report a time series of costs. Before 2018, costs are expected to remain low, below \$100 million. However, by 2018, annual costs hit \$659 million, before reaching their peak of \$1.2 billion in 2022. Net present value costs range from \$4.4 billion (at a seven percent discount rate) to \$7.3 billion (at a three percent rate).

There is the specter of higher electricity costs because of the final rule. The agency [concedes](#), “EPA estimates that facilities located in these States [with regulated electricity markets] may be able to recover compliance cost-based increases in their production costs through increased electricity prices.” On a national scale, EPA reports costs increases of approximately 0.3 percent. The agency compares this small change to typical “noise” in the electricity market, but combined with other [notable final](#) and [proposed rules](#), and this “noise” grows to double-digit price increases for consumers.

EPA also estimates that the rule will lead to “approximately 1 GW [gigawatt] in retired capacity.” This is roughly three to four power plants, depending on nameplate capacity. Despite these retirements, the agency notes, “Overall, employment effects are likely to vary in their magnitude over time and across sectors.” EPA then concludes that fully quantifying employment impacts “is a difficult task.”

Benefits from this rule are admittedly difficult to quantify. At just \$29 million, EPA concedes that monetized costs far eclipse benefits. EPA separates benefits into “direct use,” that is benefits for commercial fisheries and recreational anglers and “nonuse” benefits for “the knowledge that an ecosystem is functioning without the effects of human activity.” Finally, there are benefits associated with slightly reduced greenhouse gas emissions.

CONCLUSION

At close to \$300 million in annualized costs, with vague benefits, and higher promised electricity prices, it’s not surprising that this rule spent years in the regulatory process. It adds to EPA’s already expensive regulatory slate in 2014: \$46 billion in total costs, \$11 billion in annual costs, and 7.1 million paperwork burden hours.