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Estimating the Costs of Impingement and Entrainment: A Review of the EPA's Cost-Benefit Analysis of Proposed Regulations to 316(b) of the Clean Water Act

Electricity production causes impacts on water health, especially in estuarine environments. The most notable impact to water is due to electricity plant's use of cooling water. Cooling water intake systems withdraw millions of gallons a day from natural water bodies. Fish and other organisms are withdrawn as well. Organisms can become trapped in the cooling water system. This process is called entrainment. Organisms can also be damaged as they are pressed against the intake screens in the process called impingement. Impingement and entrainment significantly impacts fish populations, causing both ecosystem stress and economic loss. The EPA is proposing regulation changes to reduce impingement and entrainment mortality. The EPA has also conducted a cost-benefit analysis of these proposed regulations. This presentation is a review of the analysis and presents the economic valuation methods the EPA used to predict the impact to commercial and recreational fisheries. A discussion of non-use values is also included.