

Can the EPA Weigh Costs and Benefits When Regulating Existing Cooling-Water Intake Structures under the Clean Water Act?

by Jessica Mitchell Wicha

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ISSUE

Does the Clean Water Act permit the Environmental Protection Agency to weigh costs and benefits when determining “best technology available for minimizing adverse environmental impact” at existing cooling water intake structures?

FACTS

The three cases consolidated for review before the Supreme Court all concern a provision of the Clean Water Act that applies to the regulation of existing cooling-water intake structures. These intake structures are used by power plants to withdraw water from rivers, streams, lakes and other waterways to cool their machinery. The amount of cooling water withdrawn from a body of water depends on a variety of factors, including the type of cooling system used. “Open cycle” systems pass water through the facility once and then release most of it back to the water body. The returned water is often at a higher temperature. “Closed cycle” systems recirculate the water through the facility several times until salt

buildup requires the water to be discharged. Most of this water is evaporated and very little is returned to the water body. Finally, “dry cooling” systems rely on air instead of water. Both closed-cycle and dry-cooling systems withdraw significantly less water than open-cycle systems and add little or no heat to the receiving water. However, they both can reduce the efficiency and electric output of the power plant.

Both the intake and discharge of water by cooling-water intake structures have environmental consequences. The regulations at issue before the Supreme Court focus on aquatic organism mortality rates related to “impingement” (i.e., when organisms are trapped against the intake screens) and “entrainment” (i.e., when organisms are drawn through the cooling system).

Section 316(b) of the Clean Water Act authorizes the Environmental Protection Agency (EPA) to regulate

(Continued on Page 184)

Entergy Corp. v. Riverkeeper, Inc. and PSEG Fossil, LLC v. Riverkeeper, Inc. and Utility Water Act Group v. Riverkeeper, Inc.
Docket Nos. 07-588, 07-589 and 07-597

Argument Date:
December 2, 2008
From: The Second Circuit

Case at a Glance

Section 316(b) of the Clean Water Act authorizes the Environmental Protection Agency to regulate cooling water intake structures and requires that these structures reflect the “best technology available for minimizing adverse environmental impact.” In developing implementing regulations, EPA weighed the costs and benefits of various compliance alternatives. In this case, the Supreme Court will determine whether the Clean Water Act permits EPA to conduct a cost-benefit analysis when determining the technology standard for existing cooling water intake structures.





these cooling-water intake structures and requires that the location, design, construction, and capacity of the structures reflect the “best technology available [BTA] for minimizing adverse environmental impact.” The statute does not define this technology standard or otherwise explicitly address how EPA should determine what constitutes BTA.

The EPA first promulgated regulations implementing Section 316(b) in 1976. The EPA did not use cost-benefit analysis in developing these first regulations. The Fourth Circuit invalidated these regulations on procedural grounds one year later in 1977. Following that court decision, EPA implemented Section 316(b) on a case-by-case basis. In 2001, in response to a consent decree, EPA issued new regulations implementing this section of the Clean Water Act. The “Phase I” rules applied to new power plants and generally required implementation of closed-cycle cooling systems. These regulations were mostly upheld by the Second Circuit in 2004 in “Riverkeeper I.” “Phase II” regulations, which are the regulations currently at issue before the Supreme Court, were promulgated in 2004 and apply to existing power plants that intake at least 50 million gallons of water per day. The Phase II rules provide existing facilities with several compliance alternatives for establishing BTA. These alternatives include, but are not limited to, implementing a closed-cycle system. The EPA selected this regulatory approach after conducting what essentially amounted to a cost-benefit analysis of the various compliance options. The Phase II regulations also provide for a case-by-case determination, whereby the permitting authority can weigh the costs and benefits of a particular facility’s compliance in determining the appropriate action.

In 2006, Entergy Corporation, PSEG Fossil LLC, PSEG Nuclear LLC, and Utility Water Act Group (petitioners in the consolidated cases before the Supreme Court) and Riverkeeper and several northeastern states (respondents in the consolidated cases before the Supreme Court), among other parties, challenged the Phase II rules in the Second Circuit (“Riverkeeper II”). Petitioners raised a variety of arguments, including that Section 316(b) did not apply to existing facilities. The Second Circuit rejected this argument, reasoning that Section 316(b) did apply to existing facilities because it cross-referenced Section 301, which explicitly applies to existing facilities. Respondents also raised several arguments, including that EPA exceeded its authority in rejecting closed-cycle cooling as BTA for existing facilities and that the agency impermissibly construed the Clean Water Act to allow for site-specific determinations of BTA based on cost-benefit analysis. The Second Circuit held that the Clean Water Act did not permit cost-benefit analysis because the BTA standard reflected Congress’s position that the costs imposed on industry in adopting the best intake structure available are worth the benefits in reducing adverse environmental impacts. Since it was unclear whether the agency relied on such an analysis, the court remanded the issue to EPA for agency clarification or a new determination based on permissible considerations. Consistent with this determination, the court rejected EPA’s use of site-specific determinations based on cost-benefit analysis.

Petitioners sought review in the Supreme Court claiming, among other things, that the Second Circuit’s holding prohibiting EPA from conducting a cost-benefit analysis was incorrect. The United States opposed this request arguing

that no “square conflict” existed between the circuits and that the full impact of the Second Circuit’s decision would not be clear until EPA completed its proceedings on remand. However, the United States indicated that it would largely support the petitioners if certiorari were granted. The Supreme Court granted certiorari on the issue of cost-benefit analysis on April 14, 2008.

CASE ANALYSIS

Petitioners focus primarily on statutory language and structure to argue that Section 316(b) of the Clean Water Act permits EPA to weigh costs and benefits when determining BTA. Petitioners assert that the statutory language of 316(b) is expansive enough to permit EPA to conduct a cost-benefit analysis in determining BTA. Therefore, petitioners conclude that the Phase II regulations are entitled to deference pursuant to “step 1” of *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.* In other words, petitioners argue that Congress has spoken directly to the issue of whether EPA can rely on cost-benefit analysis when determining BTA, and therefore, the agency must follow Congress’s command. Petitioners focus on what they consider to be the ordinary meaning of each word in the phrase “best technology available for minimizing adverse environmental impact” to conclude that the statutory term of art contemplates a balancing of costs and benefits of a particular technology by EPA.

Respondents challenge this interpretation, asserting that petitioners rely on the “strained meaning” of this statutory language when instead the “plain meaning” of the language should be used. Respondents argue that when the plain meaning of the words “best technology available for minimizing adverse environmental

impact,” is examined, none of the words suggests that EPA has the authority to conduct a cost-benefit analysis. Respondents admit that the Second Circuit interpreted the term “available” to allow EPA to consider costs in determining whether a particular technology would be feasible for a particular category of facilities. However, respondents contend that considering economic feasibility to determine availability of a technology is different from authorizing the agency to weigh the environmental benefits against those costs.

In support of their argument that EPA’s interpretation of Section 316(b) is entitled to *Chevron* deference, petitioners also assert that the structure of the Clean Water Act supports the agency’s use of cost-benefit analysis to determine BTA. Petitioners explain that Section 316(b) cross-references Sections 301 and 306 of the Clean Water Act, which mandate or permit EPA to compare costs and benefits of compliance mechanisms, and therefore Section 316(b) must be considered in conjunction with these other Clean Water Act provisions. Petitioners also argue that all of the “best technology” standards under the Clean Water Act authorize EPA to consider costs of compliance as well as environmental benefits. Petitioners focus in particular on “best practicable control technology” (BPT) and the more stringent “best available control technology” (BAT). Petitioners argue that consideration of costs is required when determining BPT and is *permitted* when determining BAT. Given the linguistic similarity between the BTA standard under Section 316(b) and the other “best technology” standards, petitioners conclude that a similar cost-benefit balancing is permitted under Section 316(b).

Respondents disagree with this statutory construction argument.

Instead, they contend that the Clean Water Act’s statutory structure confirms that EPA cannot conduct cost-benefit analysis to determine BTA. In respondents’ view, the statutory structure underscores the deliberate and limited way Congress chose to authorize EPA to compare costs and benefits in establishing environmental standards under the Clean Water Act. Respondents take particular issue with the petitioners’ distinction between cost-benefit analysis being *required* for BPT and *permitted* for BAT. Respondents argue that this distinction “ignore[s] the clear import of the congressional decision to provide for limited cost-benefit analysis in determining BPT for a few years and to eliminate such analysis in BAT’s determination....” Respondents contend that the legislative history on the distinction between BPT and BAT is clear and well established and it would “completely upend” congressional intent to conclude that BAT authorizes EPA to conduct cost-benefit analysis.

Petitioners and respondents also address the legislative history of Section 316(b). Petitioners contend that this legislative history reflects a congressional understanding that EPA would conduct a cost-benefit analysis to determine BTA. Petitioners quote a congressional member who said that “[t]he [EPA] Administrator has shown an unfortunate tendency sometimes in the past to require ridiculous expenditures of hundreds of millions of dollars with no benefit to any persons, or even to the fish. The purpose of the language in sections 304, 306 and 316 is to require the [EPA] Administrator to utilize better judgment in the future.” Petitioners also note that Members of Congress recognized that the Clean Water Act amendment relating to cooling-water intake structures would not fulfill its objectives if it imposed unreasonable costs. Respondents

challenge petitioners’ description of the legislative history of Section 316(b). Respondents note that Congress debated the issue of the extent to which EPA should be authorized to consider costs and compare costs and benefits in establishing BTA. According to respondents, Congress ultimately rejected the biologically based approach that is incorporated into Section 316(a) and allows for consideration of costs and benefits and instead adopted a technology-based approach for Section 316(b) that does not allow for cost-benefit analysis.

This issue of the distinction between Sections 316(a) and 316(b) also arises in the context of whether EPA can make site-specific determinations based on cost-benefit analysis. Section 316(a) regulates thermal discharges and explicitly authorizes variances from discharge limits if those limits will be more stringent than necessary to assure the protection of the local water quality. Section 316(b) regulates cooling-water intake structures and does not allow for such a variance. Petitioners argue that “it is implausible to believe that Congress, knowing of the link between thermal discharges and intake structures, would have provided a water quality-based variance for the discharge while ordering [EPA] to ignore local water quality conditions in regulating the intake side.” Petitioners note that even though Section 316(b) does not include a variance procedure, it directs EPA to consider the “impact” of the “location, design, construction and capacity” of intake structures. According to petitioners, this analysis requires some consideration of site-specific issues.

On the other hand, respondents view Section 316(a) as a “narrowly-drawn provision” that does not contemplate EPA undertaking a cost-benefit com-

(Continued on Page 186)



parison, nor does it authorize EPA to determine how the cost-benefit balance should be struck. Respondents agree that the terms, “location, design, construction, and capacity” suggest a more tailored agency regulation based on narrower categories. However, respondents note that EPA’s discretion is not boundless. Moreover, respondents argue that whether EPA can conduct cost-benefit analysis and whether the agency can determine BTA based on site-specific, narrow, or broad categorical bases are different legal issues and the latter issue is not before the Supreme Court.

While petitioners argue that Section 316(b) expressly authorizes cost-benefit analysis when determining BTA and thus EPA’s regulations should be afforded deference under *Chevron* step 1, they argue in the alternative that the Clean Water Act is at least ambiguous or silent on this issue. Under *Chevron* step 2, petitioners contend that EPA’s interpretation is reasonable and therefore is entitled to deference. Petitioners point to EPA’s longstanding reliance on cost-benefit analysis to support the reasonableness of the agency’s action, noting that the Supreme Court “normally accord[s] particular deference to an agency interpretation of ‘longstanding’ duration.” The fact that EPA has frequently used cost-benefit analysis over the years and Congress has never amended Section 316(b) to prohibit EPA from doing so provides further support for the reasonableness of the agency’s approach, in the petitioners’ view. Moreover, petitioners assert that in the absence of statutory language clearly signaling congressional disapproval, cost-benefit analysis is always reasonable.

Respondents challenge this characterization of EPA’s past practice, arguing that up until the rule-

making, EPA did not claim it had authority to conduct cost-benefit analysis and instead had denied such authority. In support of this argument, respondents note that the Solicitor General has conceded that EPA’s current position on cost-benefit authority has a “greater extent” and is “less stringent” than the narrow “wholly disproportionate” test that EPA had used prior to issuing the Phase II regulations in making individual permitting decisions. Respondents further argue that even if EPA had in the past applied its “wholly disproportionate test” quite broadly, an agency administrative practice cannot trump a statute’s plain meaning, which respondents view to prohibit cost-benefit analysis. Respondents reference step 1 of *Chevron* in support of this argument, which provides that if the statutory language is clear, then that ends the inquiry.

Finally, petitioners argue that preventing cost-benefit analysis to determine BTA would lead to problematic results. Petitioners argue that neither statutory language nor sound environmental policy justify the Second Circuit’s focus on saving every fish, since fish naturally have high reproduction rates to account for high natural mortality. According to petitioners, moderate levels of impingement and entrainment may have no consequences for the marine ecosystem that are worth the technology costs. Petitioners contend that under the Second Circuit’s holding, the required retrofits of intake structures would be “enormously expensive symbolic gestures devoid of any meaningful environmental consequence.” Petitioners further argue that Congress could not have intended to require EPA to consider all environmental impacts associated with intake structures while not considering the issue of whether costs exceed benefits.

Respondents characterize these potential consequences as “absurd,” arguing that “none has credence.” According to respondents, while the plain meaning of Section 316(b) does not authorize EPA to conduct cost-benefit analysis, EPA retains discretion to administer the statutory provision in a manner to avoid petitioners’ alleged consequences. Respondents disagree that EPA is restricted to minimizing only impingement and entrainment. According to respondents, the Second Circuit acknowledged that EPA could consider other environmental impacts such as energy efficiency. Respondents also challenge the notion that EPA must require the petitioners to spend billions of dollars to save one fish. In respondents’ view, the “minimizing adverse environmental impact” standard provides EPA with some flexibility to determine whether further differences in reduction would be so minor as to be unnecessary for compliance with the BTA requirement. Respondents thus dispute that EPA would have to require a facility that withdraws cooling water from a water body devoid of aquatic life to implement expensive controls to meet BTA.

SIGNIFICANCE

If respondents prevail and the Second Circuit’s decision is upheld, then EPA likely will have to reevaluate its Phase II regulations. While the Second Circuit did not strike down the regulations as per se invalid, the court did remand to EPA for further clarification as to what constituted BTA. If EPA cannot justify its determination without relying on a cost-benefit analysis, then EPA may have to restart the potentially lengthy rule-making process. Either way, there will be great uncertainty among industry and federal and state agencies as to how to comply with and implement the cooling-water intake structures



rule, particularly those aspects of the Phase II regulations that remained in force after the Second Circuit decision. This uncertainty will last until EPA provides further agency direction or rule-making.

If EPA has to restart the rule-making process and determine what constitutes BTA without balancing costs and benefits, then the agency may move away from providing facilities with several compliance alternatives to choose from. Instead, EPA may require implementation of closed-cycle intake systems, as is already required for new intake structures. Since closed-cycle intake cooling systems are considered to be more environmentally protective than open-cycle systems, this agency decision could result in greater environmental protection of the nation's waterways. It also could better reflect the Clean Water Act's technology-forcing intent. On the other hand, some have argued, particularly industry supporters, that if EPA is prohibited from considering costs in determining BTA, and the agency consequently requires closed-cycle systems, then that could result in lengthy facility shutdowns to complete the necessary retrofits and force some plants to close altogether, which could impact the country's electric generating capacity.

A Supreme Court holding in favor of respondents also will restrict EPA's ability to exercise discretion in Clean Water Act rule-making. Indeed, EPA argues in its brief in support of petitioners that its Phase II regulations are entitled to *Chevron* deference. Arguably, EPA, not the courts, is best equipped to determine what constitutes BTA, particularly given the technical nature of the Clean Water Act. Conversely, some have praised the Second Circuit decision as striking the proper balance between judicial

deference to and oversight of agency decision-making.

If, on the other hand, petitioners prevail and EPA's Phase II regulations are upheld, then there will be greater regulatory certainty for industry and federal and state agencies. There also will be greater regulatory flexibility for industry, the benefits of which are debatable. Certainly, regulatory flexibility can help ensure compliance and likely will help avoid the dire consequences that industry supporters argue will result from a contrary Supreme Court decision. However, this regulatory flexibility also may result in significant environmental harm as facilities are not required to implement technology that arguably is the most protective of the nation's waterways.

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