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IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

United States Court of Appeals
Fifth Circuit

FILED

July 23, 2010

Lyle W. Cayce
Clerk

No. 06-60662

CONOCOPHILLIPS CO; ANADARKO PETROLEUM CORP; SURFRIDER
FOUNDATION; MASSACHUSETTS PUBLIC INTEREST PROTECTION
RESEARCH GROUP; SOUNDKEEPER INC; DELAWARE RIVERKEEPER
NETWORK; AMERICAN LITTORAL SOCIETY; RARITAN BAYKEEPER
INC, dba NY/NJ BAYKEEPER; SAVE THE BAY-PEOPLE FOR
NARRAGANSETT BAY; FRIENDS OF CASCO BAY; SANTA MONICA
BAYKEEPER

Petitioners

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY;
STEPHEN L JOHNSON, ADMINISTRATOR, UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY, IN HIS OFFICIAL
CAPACITY AS ADMINISTRATOR OF THE UNITED STATES EPA

Respondent

AMERICAN PETROLEUM INSTITUTE

Respondent-Intervenor

Appeal from the
Environmental Protection Agency

Before JOLLY,* WIENER, BARKSDALE, Circuit Judges.

WIENER, Circuit Judge:

Before us are various consolidated challenges to a Final Rule (the “Rule”) promulgated by the Environmental Protection Agency (the “EPA”) pursuant to § 316(b) of the Clean Water Act (the “Act” or the “CWA”). The Rule regulates the use of cooling water intake structures (“CWIS”) for both existing and new offshore oil and gas extraction facilities. Originally, the environmental Petitioners (collectively “Riverkeeper”) challenged the Rule as it applies to existing facilities, and the industry Petitioners (collectively “ConocoPhillips”) challenged the Rule as it applies to new facilities. In light of the Supreme Court’s decision in *Entergy Co. v. Riverkeeper*,¹ however, Riverkeeper and the EPA have now jointly moved voluntarily to remand the existing-facilities portion of the Rule for reconsideration; Intervenor American Petroleum Institute (“Intervenor API”) opposes remand.

We grant the joint motion to remand and affirm the portion of the Rule that regulates new offshore facilities.

I. Facts and Proceedings

A. Prior Rule Making under Rule 316(b) of the Clean Water Act

Through the use of CWIS, industrial facilities, such as offshore oil and gas extraction vessels (or “rigs”),² withdraw and re-circulate, in the aggregate, billions of gallons of water per day from this country’s seas, lakes, and rivers.

* Judge Jolly concurs in the result.

¹ 129 S. Ct. 1498 (2009).

² For simplicity’s sake, we adopt ConocoPhillips’s convention of referring to all offshore oil and gas drilling and extraction facilities as “facilities” or “rigs,” even though only offshore mobile drilling units are called “rigs,” as both and fixed and mobile units employ CWIS.

This enormous intake of water often results in the impingement and entrainment of aquatic biomass. (Impingement is the trapping of an organism against the intake structure, and entrainment is the uptake of an organism into the cooling system itself.)³ Impingement and entrainment can seriously affect not only the population and viability of an aquatic species, but the health of aquatic ecosystems as well.

The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters.⁴ Recognizing the impact of CWIS on the nation's marine environments, Congress empowered the EPA to regulate CWIS under the Act. Section 316(b) of the Act regulates CWIS by requiring that:

Any standard established pursuant to section 1311 of this title or section 1316 of this title and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.⁵

Despite the seemingly straightforward mandate of § 316(b), successful and effective rule making under this section has been elusive. The first Rule was issued in 1976,⁶ but, before being implemented, it was successfully challenged and remanded by the Fourth Circuit for procedural defects that violated the

³ Establishing Requirements for Cooling Water Intake Structures at Phase III Facilities, 71 Fed. Reg. 35,013 (June 16, 2006) (codified at 40 C.F.R. pts. 9, 122, 123, 124, and 125).

⁴ 33 U.S.C. § 1251(a).

⁵ Codified at 33 U.S.C. § 1326(b).

⁶ 41 Fed. Reg. 17,387 (Apr. 26, 1976).

Administrative Procedures Act (the "APA").⁷ The EPA withdrew the remanded portions of the Rule, but left intact those unremanded portions that required each National Pollutant Discharge Elimination System ("NPDES") permitting authority to use its "best professional judgment" to determine the "best technology available" for CWIS regulation.⁸ This regulatory regime remained in effect until 1995, when Riverkeeper and other petitioners obtained a consent decree from the EPA in which it agreed to issue permanent regulations under § 316(b).⁹

Under the consent decree, the EPA agreed to establish three phases of rule making:¹⁰ Phase I applies to all new CWIS facilities above a particular intake threshold size, except new offshore oil rigs (the regulation of which was postponed until Phase III);¹¹ Phase II applies to existing large power plants that take in more than 50 million gallons of water a day;¹² and Phase III (at issue here) regulates (1) existing facilities, including paper, chemical, petroleum, aluminum, and steel manufacturers, small power plants, and other facilities (collectively "existing facilities"), (2) new offshore oil and gas extraction facilities

⁷ *Appalachian Power Co. v. Train*, 566 F.2d 451 (4th Cir. 1977).

⁸ 71 Fed. Reg. at 35,011.

⁹ 71 Fed. Reg. at 35,011.

¹⁰ The EPA entered into a Second Amended Consent Decree on November 25, 2002, modifying each phase's deadlines as established in the first Consent Decree. *Id.* at 35,011.

¹¹ Regulations Addressing Cooling Water Intake Structures for New Facilities, 66 Fed. Reg. 65,256 (December 18, 2001) (codified at 40 C.F.R. pts. 9, 122, 123, 124, and 125). The EPA made minor changes to this Final Rule in 67 Fed. Reg. 78,948 (December 26, 2002).

¹² Final Regulations to Establish Requirements for Cooling Water Intake Structures at Phase II Existing Facilities, 69 Fed. Reg. 41,576 (July 8, 2004) (codified at 40 C.F.R. pts. 122, 123, 124, and 125).

("new oil rigs"), (3) new offshore liquified natural gas facilities, and (4) new seafood processing vessels.¹³

1. Final Phase I Rule

After the Final Phase I Rule was published, it was challenged by both environmental and industry petitioners. The Second Circuit reviewed the Rule and generally upheld it in *Riverkeeper, Inc. v. EPA (Riverkeeper I)*.¹⁴ The Phase I Rule established two tracks for regulating CWIS for new facilities. Track I created a uniform, national system for intake and velocity based on closed-cycle cooling technology.¹⁵ The EPA stated that the closed-cycle system is the "best technology available" for minimizing environmental impact.¹⁶ Track II allowed the use of any technological approach that "can show, in demonstration study, 'that the technologies employed will reduce the level of adverse environmental impact . . . to a comparable level to that which' would be achieved applying Track I's capacity and velocity requirements."¹⁷ Track II also allowed facilities to employ "restoration measures" – such as restocking, reclamation, and migration barrier removal – as part of its "comparable" standard, so as to maintain wildlife levels in affected bodies of water.¹⁸

Although the Second Circuit upheld most of the Phase I Rule, it did rule that the "restoration measures" provision was inconsistent with § 316(b)'s

¹³ 71 Fed. Reg. 35,030.

¹⁴ 358 F.3d 174 (2d Cir. 2004).

¹⁵ *Id.* at 182-83.

¹⁶ *Id.* at 183.

¹⁷ *Id.* (quoting 40 C.F.R. § 125.84(d)(1)).

¹⁸ *Id.*

requirement that the EPA minimize adverse environmental impacts by regulating the location, design, construction, and capacity of CWIS. This was because the “restoration measures” had nothing to do with location, design, construction, or capacity.¹⁹ Holding that the EPA exceeded its authority by including the “restoration measures” in the Rule, the Second Circuit remanded that portion of the Rule to the EPA.²⁰

2. Final Phase II Rule

The Final Phase II Rule regulates CWIS at large, existing power plants that are “point sources” and that primarily generate electric power and either transmit it or sell it to another entity for transmission, and whose CWIS use are proposed to use 50 million gallons or more of water a day.²¹ That rule set forth five compliance alternatives from which a facility could select and implement “for establishing [the] best technology available for minimizing adverse environmental impact.”²² One of the compliance alternatives available to existing power plants was to employ a closed-cycle CWIS, but selection of such a system was not required.²³ The remaining compliance alternatives referenced national performance standards that “are based on consideration of a range of technologies that [the] EPA has determined to be commercially available.”²⁴ The

¹⁹ *Id.* at 189.

²⁰ *Id.*

²¹ *Riverkeeper, Inc. v. EPA (Riverkeeper II)*, 475 F.3d 83, 92 (2d Cir. 2007) (citing 40 C.F.R. § 125.91) *rev'd and remanded by Entergy Corp. v. Riverkeeper, Inc.*, 129 S.Ct. 1498 (2009).

²² *Id.* (quoting 40 C.F.R. § 125.94(a)).

²³ *Id.* at 93.

²⁴ *Id.* (quoting 69 Fed. Reg. at 41,598-99).

Phase II Rule also created two site-specific compliance variances from the national performance standards. The first compliance variance – the “cost-compliance alternative” – provides that if a facility demonstrates that the cost of compliance would be significantly greater than the projected costs by the EPA, the local permitting authority had to make a site-specific determination of the “best technology available” as close to the applicable national performance standards as practicable, but without producing costs “significantly greater” than those considered by the EPA during rule making.²⁵ The second compliance variance – the “cost-benefit alternative” – provides that, if a facility demonstrates that the costs of compliance with the national standards is significantly greater than the benefits of compliance, the local permitting authority could make a site-specific determination of the “best technology available” that is as close as practicable to the national performance standards.²⁶

After various states and environmental groups challenged the Final Phase II Rule, the Second Circuit held that the EPA could consider costs under § 316(b) in either of two ways, viz., it could determine (1) whether the costs of remediation can be reasonably borne by the industry; or (2) which remedial technologies are the most cost-effective.²⁷ The Second Circuit also held, however, that it is impermissible under § 316(b) to consider a cost-benefit analysis that compares the costs and benefits of various regulatory options and choose the option with the best net benefits.²⁸ The court remanded the Rule to the EPA for

²⁵ *Id.* at 94 (citing 40 C.F.R. § 125.94(a)(5)(I)).

²⁶ *Id.* (citing 40 C.F.R. § 124.94(a)(5)(ii)).

²⁷ *Id.* at 98.

²⁸ *Id.*

clarification whether the national performance standards set out in the Phase II Rule incorporated a cost-benefit analysis.²⁹ On remand, the EPA suspended operation of the Rule pending further rule making, and the Supreme Court granted certiorari³⁰ limited to the question whether § 316(b) “authorizes the [EPA] to compare costs with benefits in determining the best technology available for minimizing adverse environmental impact at cooling water intake structures.”³¹

3. Entergy Corp. v. Riverkeeper

In *Entergy Corp.* the Supreme Court considered both the plain language of the Act and the structure of the Act as a whole to address whether the Act precludes a cost-benefit analysis.³² The Court first considered the Second Circuit’s interpretation of § 316(b) that the phrase “best technology available for minimizing adverse environmental impact” means “technology that achieves the greatest reduction in adverse environmental impacts.”³³ The Court described this interpretation as “plausible,” but reasoned that “best technology available” could also mean “technology that most efficiently produces some good.”³⁴ The Court read the statute’s phrase “minimizing adverse environmental impact” as allowing the EPA to consider the degree of adverse-impact reduction rather than mandating that the “greatest possible reduction in environmental harm” be

²⁹ *Id.* at 104-105.

³⁰ 128 S. Ct. 1867 (2008).

³¹ *Id.* at 1867 (internal quotation marks omitted).

³² 129 S. Ct. at 1505-07.

³³ *Id.* at 1506 (citing *Riverkeeper II*, 475 F.3d at 88-100).

³⁴ *Id.* (emphasis original).

achieved.³⁵ The Court determined that the statute afforded the EPA “some discretion to determine the extent of reduction that is warranted under the circumstances”³⁶ and that the phrase “best technology available” does not preclude cost-benefit analysis.³⁷

The Court also considered whether § 316(b)’s silence as to cost-benefit affirmatively prohibited the agency from employing a cost-benefit analysis. The Court rejected such a reading, holding that the statute’s silence “is meant to convey nothing more than a refusal to tie an agency’s hands as to whether cost-benefit analysis should be used, and if so to what degree.”³⁸ The Court reversed the Second Circuit’s remand of the Phase II Rule that rested on that court’s reading of cost-benefit preclusion.

Entergy Corp. lucidly establishes that the EPA may employ cost-benefit analysis when effecting regulations that reflect the “best technology available for minimizing adverse environmental impact.” The Entergy Corp. Court also endorsed the idea, however, that, although it may employ cost-benefits analysis in rule making, the EPA is not required to do so, and is afforded discretion to consider to what degree, if any, costs and benefits should be weighed in determining the “best technology available to minimizing adverse environmental impact.”³⁹

4. The Phase III Rule

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.* at 1507.

³⁹ *Id.* at 1506.

The final phase of CWIS rule making commenced in November, 2004 when the EPA published and sought comment on its Phase III Rule.⁴⁰ For existing facilities, the EPA proposed three classifications based on daily volume of water intake use: 50 million gallons; between 100 and 200 million gallons; and more than 200 million gallons.⁴¹ Additionally, the EPA gave notice that it might continue its current case-by-case regulation instead of implementing a national categorical approach.⁴² For new facilities, however, the EPA proposed national categorical standards for CWIS regulation.⁴³ On November 25, 2005, the EPA published a Notice of Data Availability that summarized the data that the EPA had received and collected since publishing the Proposed Rule;⁴⁴ on June 16, 2006, the EPA published the Final Phase III Rule.⁴⁵ The EPA noted that it considered input from environmental, industry, engineering, and governmental entities, held symposia to discuss research and costs of proposed technologies, and considered the materials from the Phase I and II rule makings.⁴⁶ Additionally, the EPA conducted entrainment studies for existing Phase III CWIS and collected industry-wide data regarding new facilities.⁴⁷

⁴⁰ 69 Fed. Reg. 68,444.

⁴¹ *Id.*

⁴² *Id.* at 68,467.

⁴³ *Id.* at 68,444.

⁴⁴ 70 Fed. Reg. 71,057.

⁴⁵ 71 Fed. Reg. 35,006 (codified in 40 C.F.R. pts. 9, 122, 123, 124, and 125).

⁴⁶ *Id.* at 35,012/2-3.

⁴⁷ *Id.*

For existing Phase III facilities, the EPA performed cost-benefit analyses for evaluating the national social and economic costs and benefits of the three gallons-per-day categories of structures.⁴⁸ It calculated social costs by evaluating compliance and administrative costs to the state and federal governments.⁴⁹ The economic costs were evaluated based on the financial impact that the national categorical standards would have on the existing facilities' firms.⁵⁰ The national benefits assessment included considering use (economic resource exploitation) and non-use (resource use for other than economic reason) benefits.⁵¹ The EPA also compared the annual monetized social costs of compliance with the annual monetized environmental benefits of compliance.⁵² For the 50 million gallons per day category, the EPA concluded that the annual costs of compliance would be between \$38.3 million and \$39 million and that the annual monetized benefits would be between \$1.8 and \$2.3 million, which led the EPA to conclude that the costs of compliance were "wholly disproportionate" to the benefits.⁵³ The EPA also concluded that the non-monetized benefits were unlikely to alter the monetized cost-benefit ratio.⁵⁴

⁴⁸ *Id.* at 35,030-32.

⁴⁹ *Id.* at 35,031.

⁵⁰ *Id.* at 35,032.

⁵¹ *Id.* at 35,032-33.

⁵² *Id.* at 35,017.

⁵³ *Id.*

⁵⁴ *Id.*

For new Phase III facilities,⁵⁵ the EPA concluded that it was impossible to compare the costs incurred by individual facilities to the benefits of those facilities because those facilities have not yet been built.⁵⁶ Instead, the EPA calculated the expected costs of compliance under the national uniform standards and determined whether those costs would result in a barrier to entry for new operations and whether those costs could be reasonably borne by the industry.⁵⁷

The EPA also conducted a qualitative environmental impact study to determine the adverse effects of impingement and entrainment by new CWIS.⁵⁸ The EPA stated that it was relying in part on information that had been gathered since its Phase I rule making, including industry-wide surveys of technical and economic data.⁵⁹ The EPA calculated the total annualized social cost of compliance to be between \$3.2 million and \$3.8 million,⁶⁰ that the economic impact would pose no barrier to entry, and that the industry could reasonably bear the costs of compliance because no new facilities would be prevented from operating and no new operations would be forced to cease operations because of the costs of compliance.⁶¹

⁵⁵ 40 C.F.R. § 125.130 *et seq.*

⁵⁶ 71 Fed. Reg. 35,034.

⁵⁷ *Id.* at 35,025-29.

⁵⁸ *Id.* at 35,013-14/1, 35,016/1.

⁵⁹ *Id.* at 35,012.

⁶⁰ *Id.* at 35,025.

⁶¹ *Id.* at 35,027-29.

The EPA's environmental impact analysis focused on the Gulf of Mexico, where the majority of new rig construction would occur over the next 20 years.⁶² The EPA could find no studies that specifically addressed entrainment or impingement for new rigs, so it relied on the Southeast Area Monitoring and Assessment Program ("SEAMAP") to provide information about ichthyoplankton densities in the Gulf,⁶³ which, it observed, were the same range of densities observed in the inland and coastal waters addressed in the Phase I rule making.⁶⁴ The EPA also took into account that offshore rigs serve as marine habitats, attracting and concentrating marine life in their vicinities.⁶⁵

The Phase III Rule for existing facilities specifies that CWIS requirements are to be established on a case-by-case basis under the NPDES program, in accordance with 40 C.F.R. § 125.90(b).⁶⁶ Accordingly, individual permit writers are to use their "best professional judgment" to determine, on a case-by-case basis, the requirements that each facility must meet to achieve the best technology available for minimizing adverse environmental impact at that

⁶² *Id.* at 35,013.

⁶³ The Southeast Area Monitoring and Assessment Program (SEAMAP) is a two decades-long study (1982-2003) of ichthyoplankton and fish egg density in the Gulf of Mexico. *See id.* at 35,013-35,016. The EPA referenced this study in evaluating the potential environmental harm associated with CWIS. The EPA used this Gulf study as a proxy for all the country's waters, as comparisons to other pinpoint studies of specific waters demonstrated similar to nearly uniform levels of biomass densities at corresponding depths. *Id.* at 35,013.

⁶⁴ *Id.* at 35,013, 35,019.

⁶⁵ *Id.* at 35,013 (citing studies of marine life densities surrounding California and Alaska offshore rigs and in the Gulf).

⁶⁶ *Id.* at 35,009.

facility.⁶⁷

For new offshore fixed and mobile facilities, the Rule applies national performance standards for any rig that is a “point source” and is thus required to have a NPDES permit, has a CWIS that uses at least 25% of water intake for cooling only, and withdraws at least 2 million gallons of water per day.⁶⁸ This national standard applies to all “coastal” or “offshore” oil and gas extraction facilities (there is an exception to the national standards for rigs located in tidal rivers or estuaries).⁶⁹

The Phase III Rule for new facilities creates two compliance options. First, the Rule distinguishes facilities as either fixed or non-fixed, and fixed facilities are further distinguished as those possessing a sea chest (openings in the hull of a vessel for withdrawing cooling water) and those that do not. Fixed facilities may choose to employ either Track I or Track II. Mobile units may only employ Track I, which requires the facility to minimize entrainment by reducing through-screen velocity to 0.5 f/s or less. Facilities that use sea chests need not employ fish-protection technologies, but facilities without sea chests must employ entrainment protection. Mobile units need only comply with the through-screen velocity limit and are not required to employ entrainment controls.⁷⁰ Track II allows a fixed facility to employ “alternative technologies” to demonstrate impingement minimization comparable to that afforded by the

⁶⁷ *Id.* at 35,015.

⁶⁸ 40 C.F.R. § 125.131(a).

⁶⁹ 71 Fed. Reg. at 35,021.

⁷⁰ The Agency determined that such controls would compromise the seaworthiness of the mobile units. 71 Fed. Reg. 35,014.

0.5 f/s through-screen velocity limit. Like Track I, Track II fixed facilities must either employ a sea chest or entrainment control.

Finally, all facilities are subject to impingement-minimization controls if the permitting authority determines that endangered, sport, commercial, or migratory species are threatened. Furthermore, any offshore facility may seek a “variance” from the impingement and entrainment requirements by demonstrating that the requirements would result in “compliance costs wholly out of proportion to the costs the EPA considered in establishing the requirement . . . or would result in significant adverse impacts on local water resources other than impingement and entrainment, or significant adverse impacts on energy markets.”⁷¹

B. Petitioners’ Challenges

After the EPA published notice of the Final Rule on June 16, 2006, challenges to it were filed in several courts of appeals. As these challenges to agency action were brought under the “other limitations” portion of 33 U.S.C. § 1369(b)(1)(E), the courts of appeal have exclusive jurisdiction to hear them. These challenges were consolidated by a multi-district litigation (“MDL”) panel and randomly assigned to this court. Riverkeeper moved for change of venue to the Second Circuit, which we denied. Riverkeeper then filed a parallel action in the Southern District of New York challenging the “inaction” (as they now term it) of the EPA in the Rule for existing facilities. That suit has been stayed pending our determination of jurisdiction. And then, after the instant case was fully briefed, it was stayed pending the Supreme Court’s decision in *Entergy Corp.*, which was handed down on April 1, 2009. It was in light of this decision

⁷¹ 40 C.F.R. § 125.135.

that Riverkeeper and the EPA filed a motion for voluntary remand of the existing-facilities Rule, which motion Intervenor API opposes. We ordered that motion to be carried with this case.

ConocoPhillips argues that the EPA acted arbitrarily and capriciously in promulgating national categorical standards for new facilities because these standards do not take into account facility location. ConocoPhillips also asserts that the EPA acted arbitrarily and capriciously by failing to perform the requisite cost-benefit analyses, and by relying on so-called “qualitative” rather than quantitative data. In the alternative, ConocoPhillips also contends that the qualitative data demonstrate that the EPA acted arbitrarily and capriciously in promulgating a uniform national standard. Finally, ConocoPhillips now asserts in its reply brief that the EPA has violated § 553(b)’s required notice and comment procedure by advancing in its Response a “litigating position” that differs from its original statutory interpretation of § 316(b) as articulated in the Proposed and Final Rules.

II. Standard of Review

We have jurisdiction over challenges to an agency’s action that result in “other limitations” under the CWA,⁷² and coolant water intake regulations are deemed “other limitations.”⁷³ Reviews of agency interpretations of statutes are informed by the Supreme Court’s decision in *Chevron, U.S.A. v. National Resource Defense Counsel*.⁷⁴ Under *Chevron*, a reviewing court must first look

⁷² 33 U.S.C. § 1369(b)(1)(E).

⁷³ *E.g., Riverkeeper II*, 358 F.3d at 183-84.

⁷⁴ 467 U.S. 837, 842-43 (1984).

to whether Congress has directly spoken to the precise question at issue.⁷⁵ If the court finds that congressional intent is clear, then that interpretation controls.⁷⁶ If not, however, the question for the reviewing court is whether the agency's interpretation is based on a permissible construction of the statute.⁷⁷ An agency's interpretation is permissible if it is reasonable. The question of reasonableness is not whether the agency's interpretation is the only possible interpretation or whether it is the most reasonable, merely whether it is reasonable *vel non*.⁷⁸

In the absence of a specified mechanism of judicial review of the agency action under judicial review, the APA governs.⁷⁹ 5 U.S.C. § 706(2)(A) directs that when reviewing agency "action, findings, and conclusions" the court shall hold the action of the agency unlawful only if it is found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."⁸⁰ "Under this highly deferential standard of review, a reviewing court has the least latitude in finding grounds for reversal. Courts may not use review of an agency's environmental analysis as a guise for second-guessing substantive decisions committed to the discretion of the agency."⁸¹ "An agency rule is arbitrary and

⁷⁵ *Id.* at 842.

⁷⁶ *Id.*

⁷⁷ *Id.* at 843.

⁷⁸ *Riverkeeper III*, 129 S. Ct. at 1505.

⁷⁹ 5 U.S.C. § 703.

⁸⁰ *Id.* at 706(2)(A).

⁸¹ *City of Dallas v. Hall*, 562 F.3d 712, 717 (5th Cir. 2009) (internal citations omitted).

capricious 'if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.'"⁸² The scope of the reviewing court's inquiry is to determine if the agency's judgment conforms to minimum standards of rationality, i.e., whether the agency act bears a rational relationship to the statutory purposes, and whether there is substantial evidence in the record to support it.⁸³

III. Analysis

A. The EPA and Riverkeeper's Joint Motion to Remand

The EPA and Riverkeeper jointly filed a motion to remand the Rule as it applies to existing CWIS in light of the Supreme Court's decision in *Entergy Corp.* Specifically, the EPA seeks to "reevaluate the Phase III Rule's existing facilities decision in conjunction with the Agency's proceedings on remand of the 'Phase II Rule' at issue in [Riverkeeper II] . . . in light of the Supreme Court's recent decision in [Entergy Corp.]."

Embedded in an agency's power to make a decision is its power to reconsider that decision.⁸⁴ An agency's inherent authority to reconsider its

⁸² *Texas Oil & Gas Ass'n v. EPA*, 161 F.3d 923, 933 (5th Cir.1998) (citing *Motor Vehicle Mfrs. Assn. v. State Farm Mut.*, 463 U.S. 29, 43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983)).

⁸³ *Louisiana Environmental Action Network v. E.P.A.*, 382 F.3d 575, 582 (5th Cir. 2004) (citing *Texas Oil & Gas Ass'n*, 161 F.3d at 934).

⁸⁴ *Trujillo v. General Elec. Co.*, 621 F.2d 1084, 1086 (10th Cir. 1980).

decisions is not without limits, however.⁸⁵ “An agency may not reconsider its own decision if to do so would be arbitrary, capricious, or an abuse of discretion.”⁸⁶ Furthermore, reconsideration also must occur within a reasonable time after the decision being reconsidered was made, and notice of the agency’s intent to reconsider must be given to the parties.⁸⁷

We conclude that the EPA’s joint motion is not arbitrary, capricious, or an abuse of discretion; neither do we find that it was filed untimely or without valid notice to all parties. The Supreme Court in *Entergy Corp.* has remanded the Phase II Rule for existing facilities to the EPA, and it is imminently reasonable to address together the substantial similarities of fact between that aspect of the Phase II Rule and the instant Phase III Rule in light of *Entergy Corp.* Furthermore, remand will work no prejudice to any affected entity because it merely maintains the status quo for existing facility regulation. Pending a new Rule, the EPA’s § 316(b) case-by-case permitting procedure, which was in place before the Phase III Rule was promulgated, will remain in effect. Accordingly, we grant the EPA’s joint motion for remand of just the Phase III Rule for existing CWIS.

B. ConocoPhillips’s Challenges to the Phase III Final Rule for New Facilities

1. EPA’s “Economic Feasibility” Interpretation of § 316(b)

Before considering ConocoPhillips’s substantive arguments, we first address whether the EPA’s interpretation of § 316(b), as reviewed in this appeal,

⁸⁵ *Macktal v. Chao*, 286 F.3d 822, 825 (5th Cir. 2002).

⁸⁶ *Id.* (citing 5 U.S.C. § 706(2)(A)).

⁸⁷ *Id.* (citing *Dun & Bradstreet Corp.*, 946 F.2d at 193; *Bookman v. United States*, 197 Ct.Cl. 108, 453 F.2d 1263, 1265 (1972)).

is sufficiently different from the interpretation it proffered in the Proposed Rule to constitute a violation of the notice provision for informal rule making set forth in § 4 of the APA.⁸⁸ ConocoPhillips asserts that (1) the EPA gave notice, in both the Proposed and Final Phase III Rule, that it was employing a cost-benefit analysis in its rule making for new CWIS, but (2) the EPA has abandoned its cost-benefit rationale and instead adopted during this appeal an “economic achievability” rationale for its rule making. ConocoPhillips argues that this post hoc rationalization should be afforded no deference under Chevron and that the agency should be held to its original basis of statutory interpretation.

For almost seventy years, the rule has been that “the grounds upon which an administrative order must be judged are those upon which the record discloses that its action was based.”⁸⁹ This is necessary because:

If an [administrative] order is valid only as a determination of policy or judgment which the agency alone is authorized to make and which it has not made, a judicial judgment cannot be made to do service for administrative judgment.⁹⁰

Furthermore, an agency must comply with the notice and comment procedures in informal rule making that are set out in § 4 of the Administrative Procedures Act, namely:

General notice of proposed rule making shall be published in the Federal Register, unless persons subject thereto are named and either personally

⁸⁸ 5 U.S.C. § 553.

⁸⁹ See *Global Van Lines v. ICC*, 714 F.2d 1290, 1297 (5th Cir. 1983) (quoting *SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943)) and *id.* (“General notice of proposed rule making shall be published in the Federal Register, unless persons subject thereto are named and either personally served or otherwise have actual notice thereof in accordance with law. The notice shall include . . . reference to the legal authority under which the rule is proposed”) (citing 5 U.S.C. § 553(b)(2)).

⁹⁰ *Chenery*, 318 U.S. at 88.

served or otherwise have actual notice thereof in accordance with law. The notice shall include . . . reference to the legal authority under which the rule is proposed⁹¹

and

After notice required by this section, the agency shall give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation. After consideration of the relevant matter presented, the agency shall incorporate in the rules adopted a concise general statement of their basis and purpose.⁹²

Sections 553(b)(2) and (c) require that (1) an agency identify the source of its legal authority during the notice and comment period, and (2) “the reference to legal authority must be sufficiently precise to apprise interested persons of the agency’s legal authority to issue the proposed rule.”⁹³

ConocoPhillips does not dispute that the EPA has maintained, and continues to maintain, that § 316(b) is the statutory authority under which it has promulgated the Phase III Rule. Its argument is that the EPA’s “economic achievability” test, asserted during this appeal, is sufficiently different from the “cost-benefit” test announced during rule making that it amounts to a mere “litigation position” and the agency’s justifications for its Phase III Rule that rest on the “economic achievability” argument should be ignored.

ConocoPhillips makes much of the EPA’s use on appeal of the phrase “economic achievability” – a term that appears nowhere in the Proposed or Final

⁹¹ 5 U.S.C. § 553(b)(2) (emphasis added).

⁹² *Id.* at § 553(c) (emphasis added).

⁹³ *Global Van Lines*, 714 F.2d at 1298 (internal citation and punctuation omitted).

Rule. An agency's alteration of its terminology, however, does not mean that it has altered its methodology. Certainly, it may be possible for an agency to alter, post hoc, its previously announced interpretation of its legal authority to such a degree that the rule in *Chenery* and the notice requirements of the APA are violated. Even so, when an agency, in its discretion, has flexibility to execute its statutory authority in different ways, it may not always be clear whether a shift in an agency's approach to rule making runs afoul of the APA or is merely a valid exercise of its statutory authority to regulate in different ways. We have long held that the Final Rule and the Proposed Rule need not be identical. The Final Rule must be a "logical outgrowth"⁹⁴ of the rule making process, and courts must proceed with caution before deeming a Final Rule too attenuated from the Proposed Rule, lest we supplant the agency's role in the nation's regulatory scheme.⁹⁵ In the instant case, however, ConocoPhillips does not complain that the Proposed Rule and the Final Rule are different; rather, it insists that both the Proposed Rule's and the Final Rule's stated interpretations of § 316(b) differ from the agency's interpretation argument on appeal.

This question does not turn on the mere invocation by the EPA of the phrase "economic achievability" for the first time on appeal. The crux of the question is whether the EPA's justificatory argument on appeal so differs from the justification articulated during the rule making process to have deprived interested parties of the notice required by the APA.

⁹⁴ *Texas Office of Public Utility Counsel v. Federal Communications Commission*, 265 F.3d 313, 326 (5th Cir. 2001) (quoting *United Steelworkers of Amer.*, *AFL-CIO-CLC v. Schuylkill Metals Corp.*, 828 F.2d 314, 317-18 (5th Cir. 1987)).

⁹⁵ *See Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 525 (1978) (stating that reviewing courts must not "engraft[] their own notions of proper procedures upon agencies entrusted with substantive functions by Congress").

The EPA's discussion in the preamble of its legal authority to promulgate the Phase III Rule in the Proposed Rule reads:

Section 316(b) requires that cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. In contrast to the effluent limitations provisions, the object of the "best technology available" is explicitly articulated by reference to the receiving water: To minimize adverse environmental impact in the waters from which cooling water is withdrawn. This difference is reflected in EPA's past practices in implementing sections 301, 304, and 316(b). While EPA has established effluent limitations guidelines based on the efficacy of one or more technologies to reduce pollutants in wastewater, considering costs, but without necessarily considering the impact on the receiving waters, EPA has previously considered the costs of technologies in relation to the benefits of minimizing adverse environmental impact in establishing section 316(b) limits. In *Re Public Service Co. of New Hampshire*, 10 ERC 1257 (June 17, 1977); In *Re Public Service Co. of New Hampshire*, 1 EAD 455 (Aug. 4, 1978); *Seacoast Anti-Pollution League v. Costle*, 597 F. 2d 306 (1st Cir. 1979).

For this Phase III rule making, EPA therefore interprets Clean Water Act section 316(b) as authorizing EPA to consider not only technologies but also their effects on and benefits to the water from which the cooling water is withdrawn. Based on these two considerations, today's proposed rule establishes national requirements for facilities to install technology, as appropriate, that is technically available, economically practicable, cost-effective, and justified by the benefits to the source waterbody.⁹⁶

The preamble to the Final Rule reads:

Because section 316(b) is silent as to the factors EPA should consider in deciding whether a candidate technology minimizes adverse environmental impact, EPA has broad discretion to identify the appropriate criteria. See *Riverkeeper*, 358 F.3d at 187, n.12 (brevity of section 316(b) reflects an intention to delegate significant rule making authority to EPA); see *id.* at 195 (appellate courts give EPA "considerable

⁹⁶ 69 Fed. Reg. 68,449.

discretion to weigh and balance the various factors” where the statute does not state what weight should be accorded) (citation omitted).

For this Phase III rule making, EPA therefore interprets the phrase “best available technology for minimizing adverse environmental impacts” as authorizing EPA to consider the relationship of the costs of the technologies to the benefits associated with them. EPA has previously considered the costs of technologies in relation to the benefits of minimizing adverse environmental impact in establishing section 316(b) limits, which historically have been done on a case-by-case basis. In *Re Public Service Co. of New Hampshire*, 10 ERC 1257 (June 17, 1977); In *Re Public Service Co. of New Hampshire*, 1 EAD 455 (Aug. 4, 1978); *Seacoast Anti-Pollution League v. Costle*, 597 F.2d 306 (1st Cir. 1979).

In addition to helping EPA determine the effects of candidate technologies on the receiving water, considering the relationship of costs and benefits also helps EPA determine whether the technologies are economically practicable. EPA has long recognized, with the support of legislative history, that section 316(b) does not require adverse environmental impact to be minimized beyond that which can be achieved at an economically practicable cost. See 118 Cong. Rec. 33762 (1972) reprinted in 1 Legislative History of the Water Pollution Control Act Amendments of 1972, at 264 (1973) (Statement of Representative Don H. Clausen). EPA therefore may consider costs and benefits in deciding whether any of the technology options for Phase III existing facilities actually do minimize adverse environmental impact – or whether the choice of technologies should be left to BPJ decision-making. When the costs of establishing a national categorical rule substantially outweigh the benefits of such a rule, a national categorical section 316(b) rule may not be economically practicable, and therefore not the “best technology available for minimizing adverse environmental impact.”

Nothing in section 316(b) requires EPA to promulgate a regulation to implement the requirements for cooling water intake structures. Section 316(b) of the CWA grants EPA broad authority to establish performance standards for cooling water intake structures based on the “best technology available to minimize adverse environmental impact.”⁹⁷

⁹⁷ 71 Fed. Reg. at 35,010.

Both the Proposed and Final Rules reflect that the EPA considered the Act to afford the agency the power to consider cost-benefits when regulating existing and new CWIS. Furthermore, the Proposed Rule expressed that the agency intended to consider CWIS regulation from both a technological standpoint and a cost-benefit standpoint: "EPA therefore interprets Clean Water Act section 316(b) as authorizing EPA to consider not only technologies but also their effects on and benefits to the water from which the cooling water is withdrawn." This flexibility in regulatory approach is echoed in the Final Rule's statement that the EPA "has broad discretion to identify the appropriate criteria" for evaluating whether candidate technology minimized adverse environmental impact and that considering the costs and benefits aids the agency in determining whether a regulatory scheme is "economically practicable."

Both preambles demonstrate that the agency interpreted § 316(b) as authorizing a cost-benefit approach to CWIS regulation, but also that the agency does not consider itself bound to do so. What the preambles to the Proposed and Final Rules do indicate is that the agency purported to employ cost-benefit analysis in promulgating CWIS regulation for existing and new facilities as part of its "discretion to weigh and balance various factors" when determining the "best technology available for minimizing adverse environmental impact."

The Phase III Final Rule is bifurcated in its application, regulating existing offshore facilities differently from new ones. It is therefore necessary to look beyond the Rule's general statements in the preamble to the Rule's specific application to new CWIS facilities. The Final Rule provides a detailed summary of the EPA's cost-estimation for the national categorical regulatory

options for new CWIS.⁹⁸ The agency (1) identified the different types of CWIS being employed by different offshore facilities, (2) identified available impingement and entrainment control measures, and (3) estimated both capital and annual operating costs “for each technology option for the different configurations of offshore . . . facilities and [CWIS].”⁹⁹ The agency also estimated the predicted economic impact of the new Rule by evaluating the costs associated with available impingement and entrainment technology with “superior reliability and performance and ease of operation.”¹⁰⁰ After collecting this data, the EPA evaluated the likely economic impact (1) on offshore facility revenue and operating costs, and (2) as a barrier-to-entry.¹⁰¹

In the “Comparison and Benefits and Costs” section of the Final Rule,¹⁰² the EPA states that it could not compare estimated benefits yielded from the Rule as it applies to new facilities because “such estimates would rely on speculating where these facilities would be built and/or operate Hence, it is not possible to compare quantified costs and benefits associated with this final rule.”¹⁰³ The agency did, however, perform “comparisons of the national benefits and costs of the national categorical regulatory options” by comparing the “total annualized use benefits to total annualized pre-tax costs at existing facilities

⁹⁸ *Id.* at 35,025-29.

⁹⁹ *Id.* at 35,025.

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 35,025-29.

¹⁰² 71 Fed. Reg. 35,034.

¹⁰³ *Id.*

that remain open in the baseline.”¹⁰⁴

In short, the Final Rule indicates that the EPA estimated the compliance costs of the national categorical standards for new CWIS and compared those costs to the likely economic impact on the industry. Additionally, the EPA compared the compliance costs to the “baseline” benefits afforded by existing facilities. The agency was unable to perform a specific cost-benefit analysis for new facilities, however, as those facilities have not yet been built.

On appeal, the EPA insists that it is not required to conduct a cost-benefit analysis when promulgating rules under § 316(b), and that, given the available information (or lack thereof), “economic achievability . . . specifically, barriers to entry, are the appropriate cost measures for new facilities because they analyze whether a regulation will place new facilities at a competitive disadvantage as compared to existing facilities.” The agency asserts further that, even though it could estimate the costs of compliance for new CWIS despite not knowing their locations, it could not estimate the benefits of the Rule because of the wide variety of ecosystems in which new offshore facilities will be located. In contrast to benefits, compliance costs can be estimated because they will remain constant irrespective of the specific location of the facility: The depths of all CWIS are approximately the same regardless of the depth of the water at the facilities’ location.

After comparing the EPA’s statements in the Final Rule to those argued before us, we are convinced that the EPA’s “economic achievability” argument is not a mere litigating position, but is instead the very basis under which the Final Phase III Rule for new offshore facilities was promulgated. The EPA

¹⁰⁴ *Id.* at 35,034.

considered barrier to entry and economic impact, as distinguished from making specific, facility-by-facility cost-benefit analyses, as the basis for the Final Rule, and that position has not changed during this appeal. We see no material difference between the EPA's statutory interpretation of its rule making authority and the interpretation previously articulated. ConocoPhillips's argument that the EPA did not provide adequate notice of the economic-achievability test during rule making is unavailing.

2. Whether the EPA's Rule Making was Arbitrary and Capricious

ConocoPhillips makes two primary arguments that the EPA's Final Phase III Rule for new offshore facilities is arbitrary and capricious. Each of these contentions rests at least in part on the assertion that the statutory language of § 316(b) mandates that the EPA engage in a cost-benefit analysis to effect CWIS regulations. In *Entergy Corp. v. Riverkeeper*, the Supreme Court has now made pellucid that the EPA may but is not required to engage in cost-benefit analyses for CWIS rule making. And, as discussed above, the EPA has never interpreted the statute to require cost-benefit analyses in its rule making.¹⁰⁵ Neither did the EPA give notice in this rule making that it was bound to do so or that it would do so to the exclusion of other metrics. Thus, ConocoPhillips's objection to the Final Phase III Rule on this ground has been neutralized. We thus proceed to consider the specific grounds on which ConocoPhillips urges us to hold that the EPA was arbitrary and capricious in its rule making.

The central theme for ConocoPhillips's remaining objections is that the

¹⁰⁵ See, e.g., the EPA's first regulation of CWIS. 41 Fed. Reg. 17,387, 17388 (Apr. 26, 1976) ("No comparison of monetary costs with the social benefits of minimizing adverse environmental impacts, much less a formal, quantified "cost/benefit" assessment is required by the terms of [§ 316] the [Clean Water] Act.").

agency was arbitrary and capricious in failing to consider facility location when it promulgated the Final Phase III Rule. This objection rests on two primary arguments: (1) It is arbitrary and capricious for the EPA to fail to conduct a benefits analysis for specific facility locations, and (2) it is arbitrary and capricious for the EPA to rely on the general, “qualitative” SEAMAP study, rather than on site-specific quantitative studies, to estimate the environmental impact of new CWIS.

a. Costs and Benefits of Facility Location

ConocoPhillips asserts that the EPA failed properly to consider facility location – as required by statute – in promulgating the national categorical standards for new offshore facilities. ConocoPhillips argues that, contrary to the EPA’s contention, the administrative record provided both the likely type and number of new facilities to be deployed over the next 20 years, and the overwhelming majority of new oil and gas rigs will be situated in very deep water (greater than 1,000 feet in depth) in the Gulf of Mexico. ConocoPhillips acknowledges that this information did not include the precise latitude and longitude of each new facility, but nevertheless “did tell the agency all it needed to know to perform a meaningful cost/benefit study: what kinds of rigs . . . , operating in what seas, and at what depths.” ConocoPhillips insists that, given this information and the fact that the EPA stated that it possessed enough information to calculate compliance costs for new facilities, the agency’s claim that it did not have enough information to perform a meaningful cost-benefit analysis is arbitrary and capricious or, in the alternative, that it was arbitrary and capricious for the agency not to develop this information if it did not have it during rule making.

i. Statutory Argument

Section 316(b) reads: “Any standard established pursuant to section 1311 of this title or section 1316 of this title and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.”¹⁰⁶ ConocoPhillips claims that the emphasized language mandates that the EPA consider the facility’s physical location in its rule making; the EPA responds that this language only pertains to CWIS’s physical location and that a decision not to regulate on the basis of location does not mean that the agency did not consider it.

To evaluate the agency’s interpretation of § 316(b), we employ Chevron’s above-described two-step framework: We first decide whether Congress spoke directly to the precise question at issue, and, if it did, give effect to the unambiguously expressed intent of Congress; under such a situation, we will reverse an agency’s interpretation if it does not conform to plain meaning of statute.¹⁰⁷ If the statute is silent or ambiguous, however, we ask whether the agency’s interpretation is based on a permissible construction of the statute. We may reverse the agency’s construction of an ambiguous or silent provision only if we find it arbitrary, capricious, or manifestly contrary to the statute. That is to say, we will sustain an agency’s interpretation of an ambiguous statute if that interpretation is based on a permissible construction of the statute. This is Chevron’s second step.¹⁰⁸

¹⁰⁶ 33 U.S.C. §1326(b) (emphasis added).

¹⁰⁷ *Texas Office of Public Utility Counsel v. F.C.C.*, 183 F.3d 393, 410 (5th Cir. 1999) (internal punctuation and citation omitted).

¹⁰⁸ *Id* (internal punctuation and citation omitted)..

To determine whether a statute is ambiguous, we first look to its plain meaning.¹⁰⁹ It is absurd and arbitrary to decide that “of cooling water intake structures” modifies some of the serial nouns but not “location.” There is certainly no evidence in the plain language – or in the rules of English grammar – to support such an interpretation. Nouns joined by coordinating conjunctions are usually treated as a single, compounded unit,¹¹⁰ and a postmodifying prepositional phrase is most naturally read to modify that single unit.¹¹¹ It is also absurd to assume that Congress intended “capacity” to refer to CWIS, but for “location, design, and construction” to refer to the “facility.” In short, to read this language as would ConocoPhillips – that “location” refers to “point sources” – finds no support in the plain language or the structure of the statute. Furthermore, construing “location” to mean the “facility’s location” is wholly unsupported by the plain meaning of the statute. Many facilities, such as power plants, employ CWIS but are themselves located on land. Under ConocoPhillips’s interpretation, the standards the EPA establishes must consider the location of a terrestrial facility but may not consider the location of that facility’s remote maritime or riparian CWIS.

Such a reading makes no sense. We hold that the plain language of the statute requires the EPA to consider the location of the CWIS when establishing rules under § 316(b), irrespective of whether the location of the CWIS is the

¹⁰⁹ *Goswami v. American Collections Enterprise, Inc.*, 377 F.3d 488, 492 (5th Cir. 2004) (“[W]e do not look beyond the plain meaning of the statute unless the statute is absurd or ambiguous. Without ambiguity we are not permitted to look to the legislative history or agency interpretation.”).

¹¹⁰ SIDNEY GREENBAUM, OXFORD ENGLISH GRAMMAR 233 (1996).

¹¹¹ Consider, e.g., “The doctor decided that keeping a boat, trailer, and car *in storage* was too expensive.”

same as that of the facility served or is located in or contiguous to the water but distant from the facility. Having concluded that the statute is unambiguous, we do not proceed to the second prong of Chevron.

As for ConocoPhillips's substantive criticism of the agency's treatment of CWIS location, the EPA readily acknowledges that it did not attempt to estimate the likely benefits achieved by specific facilities at specific locations. Rather, the agency points to the portion of the record which reflects that it collected information to inform its decision in promulgating national categorical standards. The EPA expressly found, by considering three economic impact assessments,¹¹² that uniform regulation was achievable, that it would not create barriers to entry, and that it would not force operations to close.¹¹³ In addition, the EPA considered a wide range of industry, environmental, and economic data which related to the types of facilities that will be used¹¹⁴ and the technologies available and their efficacy.¹¹⁵ The agency also considered this information in the context of the likely locations in the Gulf of Mexico (where almost all new offshore facilities will be situated),¹¹⁶ and made an exception to the uniform standard for facilities to be located in tidal rivers or estuaries.¹¹⁷ Moreover, the data in the record support the conclusion that environmental harm may result at all likely facility locations: both estuarial and ocean biomass suffer the

¹¹² 71 Fed. Reg. 35,025-29.

¹¹³ *Id.*

¹¹⁴ 71 Fed. Reg. 35,024-25.

¹¹⁵ *Id.*

¹¹⁶ *Id.* at 35,013.

¹¹⁷ *Id.* at 35,020.

highest rate of destruction from CWIS; eggs and plankton disperse over wide areas; and aquatic organisms are attracted to and concentrate around offshore facilities.¹¹⁸ The EPA further notes that, regardless of any shortcomings that ConocoPhillips finds in the data the agency relied on, ConocoPhillips provided no more detailed data during rule making than that which the EPA considered; indeed, site-specific impingement and entrainment data for offshore facilities have apparently never been collected.¹¹⁹

Considering the record as a whole, as well as the EPA's interpretation and application of § 316(b), we conclude that the EPA's decision to forgo a benefits analysis and promulgate the Phase III Rule on economic achievability grounds is at least "minimally related to rationality." Of the Texas Oil & Gas factors – (1) agency reliance on factors which Congress has not intended it to consider, (2) failure to consider an important aspect of the problem, (3) offering an explanation for its decision that runs counter to the evidence before the agency, or (4) offering an explanation that is so implausible that it could not be ascribed to a difference in view or the product of agency expertise¹²⁰ – only the second is possibly applicable. The record makes clear, however, that the EPA did consider location an "important aspect of the problem" – specific benefits estimates for specific facilities – and, with that precise data unavailable, that the agency evaluated the application of national categorical standards by looking at (1) the economic feasibility of the approach to the industry as whole and (2) the expected benefits that will be achieved generally. "Given the admitted

¹¹⁸ *Id.* at 35,013.

¹¹⁹ *Id.*

¹²⁰ 161 F.3d at 934.

information shortage, the EPA must make use of the information it has, recognizing the limits of the information; EPA cannot refuse to carry out its mandate, waiting for the day when it might possess perfect information.”¹²¹ Accordingly, under the “highly deferential” standard of review mandated here, we are unpersuaded that the EPA’s failure to estimate benefits for specific new facility locations renders the process arbitrary or capricious.

ii. Reliance on SEAMAP Data

ConocoPhillips also faults the EPA’s reliance on so-called “qualitative data,” as opposed to “quantitative data,” to justify its promulgation of national categorical standards for new facilities. Specifically, ConocoPhillips takes issue with EPA’s conclusion that, although the “EPA has limited information on specific environmental impacts associated with oil and gas extraction facilities,” the agency nevertheless was confident in the “potential for such impacts to warrant including [national categorical requirements] for new offshore oil and gas extraction facilities in this rule.”¹²² ConocoPhillips insists that the “limited information” that the EPA does possess – the SEAMAP data¹²³ – is inadequate to support the Final Rule and that it was arbitrary and capricious for the agency not to develop a “quantitative benefit study” for new facility location. ConocoPhillips also contends that the SEAMAP data itself demonstrates that it

¹²¹ *BASF Wyandotte Corp. v. Costle*, 598 F.2d 637, 652 (1st Cir. 1979).

¹²² 71 Fed. Reg. 35,016.

¹²³ The agency also points out that it relied on more than just the SEAMAP and similar studies to evaluate environmental impact. Other sources of corroborating information include evidence that the offshore facilities attract and concentrate a significant amount of aquatic life as a habitat and that the offshore areas where rigs will be located contain large a number of aquatic life forms with little or no motility (rendering such life especially vulnerable to entrainment).

was arbitrary and capricious for the EPA either not to employ a case-by-case permitting regime or not to distinguish between deep water and shallow water facilities in promulgating the Rule.

Just as we have concluded that the agency's treatment of facility location is not arbitrary and capricious, we also conclude that the EPA's reliance on the SEAMAP data is not arbitrary and capricious. Conducting precise "quantitative benefits studies" for facilities that have yet to be built is impossible, and there are no existing quantitative studies of impingement and entrainment for new facilities. Again, when an agency is faced with such informational lacunae, the agency is well within its discretion to regulate on the basis of available information rather than to await the development of information in the future. And, as the EPA reiterates, almost all new offshore facilities will be located in the Gulf of Mexico, precisely the area surveyed by the SEAMAP study. That study demonstrates the presence of larval and planktonic life at increasing levels of depth in the Gulf, and, as ConocoPhillips acknowledges, the study shows that the vast majority of sensitive aquatic life lives in the first 100 meters of the water column.¹²⁴

The EPA also relied on three additional studies of specific waterbodies as comparators (Penobscot Bay, Caloosahatchee Estuary, and the St. Lawrence River). ConocoPhillips asserts that those studies are so different from the SEAMAP data as to discredit the EPA's contention that the SEAMAP data represents an accurate estimate of all offshore larval densities. The agency counters that the "EPA's biology experts concluded that, for purposes of determining the potential for adverse environmental impact, they [the three

¹²⁴ 71 Fed. Reg 35,013.

studies] are comparable.” Although ConocoPhillips insists that the EPA’s conclusion that the SEAMAP data and the three specific studies are comparable is “highly arbitrary,” reading that conclusion would present questions of scientific evaluation and meta-analysis, tasks that we are ill-equipped to assume. “When reviewing an agency’s scientific determinations in an area within the agency’s technical expertise, a reviewing court must be at its most deferential.”¹²⁵ We defer to the agency’s evaluation of the specific offshore and SEAMAP studies.

Relying in large part on the SEAMAP study, the EPA concluded that there is “real potential for adverse environmental impact” for new offshore facilities, regardless of location. This conclusion is greatly bolstered by the fact that the statute commands that CWIS location – and not facility location – be considered in regulating CWIS. This is important to our review of the EPA’s Final Rule because there is potentially a great difference between the depth of the water in which a facility is located and the depth of water in which its CWIS is located. ConocoPhillips’s location argument rests largely on the assumption that because facilities will be located in different water depths, and these disparate depths contain a wide range of biomass density, new CWIS should be regulated on a case-by-case basis. The record reflects, however, that, even though some of the facilities will be located in deep waters and other in shallow waters (and, in the case of mobile rigs, may in fact be located from time to time in a wide range of water depths), the CWIS intakes will always be located at approximately the same water depth.¹²⁶ In other words, even though a particular facility might

¹²⁵ *Chemical Mfrs. Ass’n v. EPA*, 870 F.2d 177, 231 (5th Cir. 1989).

¹²⁶ 71 Fed Reg. 35, 016.

extract oil and gas from a great depth, the CWIS will draw water at or near the surface, specifically, within the first 100 feet of the water column. Thus, the most relevant water depth of water for evaluating the adverse environmental impact for offshore facilities is 100 feet or less. It is this depth that the SEAMAP and other data demonstrate is most populated by vulnerable species. We cannot say that the record does not “substantially support” the agency’s reliance on the SEAMAP data and its concern with only CWIS location and not facility location.

When we consider all of the forgoing analyses and reasoning, we conclude that the EPA’s reliance on the SEAMAP data is not arbitrary and capricious. First, the agency must make do with the available information. Second, the EPA has run afoul of none of the Texas Oil & Gas factors here, and the agency’s estimation of adverse environmental impact was justified by the SEAMAP and other data, considering that (1) it is impossible for the agency to know precisely where a new fixed or mobile facility will be located, and (2) the CWIS structures themselves will be located almost uniformly in 100 meters of water or less. Consequently, the agency’s decision to consider but not regulate on the basis of facility location is rationally related to the statute’s purpose and substantially supported by the record.

IV. Conclusion

Under the highly deferential standard of review here applicable, we hold that the Final Phase III Rule for new facilities is substantially supported by the record and is rationally related to the statutory purpose of § 316(b). The Supreme Court has ratified the agency’s longstanding interpretation that it may, but is not required to, employ cost-benefit analysis when making rules under § 316(b). The record reflects that the EPA gave sufficient notice that it could but was not bound to engage in cost-benefit analyses when promulgating the Final

Rule for new facilities. The agency's decision to regulate on the basis of economic achievability was borne out by the existence of cost information but not benefit information. The scientific data available to the agency demonstrated the likely adverse environmental impact of CWIS regardless of facility location.

We GRANT the joint motion to remand that portion of the Final Phase III Rule regulating existing cooling water intake structures, and we AFFIRM that portion of the Final Phase III Rule regulating new cooling water intake structures.