United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued September 25, 2007 Decided November 6, 2007

No. 06-1068

CITY OF PORTLAND, OREGON,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

CITY OF NEW YORK, NEW YORK,
INTERVENOR FOR PETITIONER

On Petition for Review of an Order of the
Environmental Protection Agency

John M. Stevens, argued the cause for petitioner. With him on the briefs was *Jonathan M. Ettinger*.

Martin F. McDermott, Attorney, U.S. Department of Justice, argued the cause for respondent. With him on the brief was *Caroline H. Wehling*, Assistant General Counsel.

Susan E. Amron, Assistant Corporation Counsel, was on the brief for intervenor City of New York in support of petitioner. *Christopher G. King*, Counsel, entered an appearance.

Diane Curran was on the brief for *amici curiae* Oregon Wild, et al. in support of petitioner.

Timothy Donaldson and *Charles B. Roe, Jr.* were on the brief for *amicus curiae* City of Walla Walla, Washington.

Before: GINSBURG, *Chief Judge*, and SENTELLE and TATEL, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* TATEL.

TATEL, *Circuit Judge*: In this case Portland and New York City challenge an Environmental Protection Agency rule regulating microbial contaminants in drinking water. The rule requires the two cities to take several steps to eliminate the parasite Cryptosporidium from their drinking water. The cities challenge the rule on many grounds, arguing that EPA improperly conducted a required cost-benefit analysis, provided inadequate notice and opportunity for public comment, ignored significant comments on the draft rule, failed to use the best available science, and issued a final rule unsupported by the record. Because we find the cities' arguments either meritless, irrelevant, or both, we deny the petition for review.

I.

Cryptosporidium is a parasite found in human and animal feces. When ingested, it can cause cryptosporidiosis, which generally leads to mild flu-like symptoms, but can be deadly in children, the elderly, and those with weak immune systems (e.g., AIDS patients). From 1984 to 2000, the United States experienced ten reported cryptosporidiosis outbreaks linked to drinking water. By far the most serious outbreak occurred in Milwaukee, Wisconsin, in 1993, killing more than fifty people and sickening hundreds of thousands of others. *See* National Primary Drinking Water Regulations: Long Term 2 Enhanced

Surface Water Treatment Rule; Final Rule, 71 Fed. Reg. 654, 659-61 (Jan. 5, 2006) (to be codified at 40 C.F.R. pts. 9, 141, 142).

Most cities try to protect against Cryptosporidium by running their "source water"—the river or lake from which they draw water—through high-tech filters. New York and Portland, however, are two of the rare large cities that do not filter their water before it reaches consumers. Instead, the two cities seek to protect public health by carefully controlling the sources from which their water originates. In particular, they have taken steps to ensure that their watersheds are entirely off-limits to human activity and domestic animals. Thus, wild animals represent the only likely cause of Cryptosporidium in their source waters.

Portland and New York are also unusual in that they use uncovered reservoirs, rather than covered reservoirs, to store their "finished water"—water that goes directly to consumers without further treatment. The cities say they have gone to great lengths to protect their reservoirs from sources of Cryptosporidium. Though located in urban areas, the reservoirs were carefully constructed to prevent runoff from draining into them, fences and security exclude people and animals from them, and overhead wires (in New York but not Portland) discourage flocks of birds from landing on them. According to EPA, however, Cryptosporidium can still enter these reservoirs via bird droppings, small animals able to penetrate the fences, and intentional human contamination.

The Safe Drinking Water Act (SDWA), 42 U.S.C. §§ 300f to 300j-26, requires EPA to protect the public from Cryptosporidium and other drinking water contaminants. Because the SDWA was the basis for the rule challenged in this case, we describe the Act's basic provisions before turning to the details of the rule at issue here.

The SDWA regulates public water systems by limiting the allowable level of contaminants in such systems. It requires EPA to set a "maximum contaminant level goal" (MCLG) for each identified contaminant at a level at which no known adverse health consequences will occur. *Id.* § 300g-1(b)(4)(A). It then requires EPA to set a "maximum contaminant level" (MCL) for each contaminant as close to the MCLG as is feasible. *Id.* § 300g-1(b)(4)(B). Under the statute, "feasible" means "feasible with the use of the best technology, treatment techniques and other means which the Administrator finds . . . are available (taking cost into consideration)." *Id.* § 300g-1(b)(4)(D). If EPA determines that ascertaining the level of a contaminant will be either economically or technologically infeasible—for example, because no adequate testing procedure exists—the Agency can require a certain "treatment technique" instead of an MCL. *Id.* § 300g-1(b)(7)(A). Treatment techniques must "prevent known or anticipated adverse effects on the health of persons to the extent feasible." *Id.*

Based on these requirements, EPA convened a large group of stakeholders in 1992 to develop rules to combat microbial contamination in drinking water, including Cryptosporidium. The group issued its recommendations in two stages. Acting on the first set of recommendations, EPA issued a 1998 rule that did four things relevant to the issue we face here: (1) it established an MCLG of zero for Cryptosporidium, meaning there is no safe level of Cryptosporidium in drinking water; (2) it imposed treatment techniques, rather than an MCL, to control Cryptosporidium, because EPA had earlier concluded that it would be infeasible to measure Cryptosporidium at the low levels at which the parasite can threaten human health; (3) it required that all finished water reservoirs built after the rule's issuance have covers; and (4) it required systems that filter their water to treat it for Cryptosporidium. *See* National Primary Drinking Water Regulations: Interim Enhanced Surface Water

Treatment, 63 Fed. Reg. 69,478, 69,483-84 (Dec. 16, 1998) (codified at 40 C.F.R. pts. 9, 141, 142). The rule also warned that EPA was considering requiring that all existing finished water reservoirs be covered, but explained that the Agency needed more time to analyze the issue. *Id.* at 69,494.

Acting on the basis of the stakeholders' second set of recommendations, EPA issued a 2003 proposed rule that did three things: (1) it required all water systems to monitor their source water for Cryptosporidium; (2) it required systems that do not filter their water, such as New York and Portland, to treat their source water for Cryptosporidium; and (3) it imposed new requirements on existing uncovered reservoirs, giving cities with such reservoirs three options: covering their reservoirs, treating the water in them for viruses (but not Cryptosporidium), or implementing a state-approved risk mitigation plan. *See* National Primary Drinking Water Regulations: Long Term 2 Enhanced Surface Water Treatment Rule; Proposed Rule, 68 Fed. Reg. 47,640, 47,644-45 (proposed Aug. 11, 2003) (to be codified at 40 C.F.R. pts. 141, 142). Unlike most cities, Portland and New York were affected by all three aspects of this rule because they had uncovered reservoirs *and* provided unfiltered water.

The final rule, which EPA issued in 2006, was identical to the proposed rule except for two key differences. First, the final rule eliminated the risk mitigation option, forcing cities with uncovered reservoirs to cover them or treat the water in them. Second, rather than requiring treatment of finished water only for viruses, the final rule required treatment for Cryptosporidium as well. 71 Fed. Reg. at 657. Thus, under the final rule, New York and Portland have two choices: they may either treat their source water for Cryptosporidium and cover their reservoirs, or they may leave the reservoirs uncovered and treat the water for Cryptosporidium as it leaves the reservoirs. The basic idea is

that at some point the two cities must treat their water for Cryptosporidium and, following treatment, protect it from potential sources of Cryptosporidium.

After EPA issued its final rule, Portland filed a petition for review pursuant to 42 U.S.C. § 300j-7(a), which gives this court jurisdiction over challenges to final EPA rules promulgated under the SDWA. We granted New York's motion to intervene. The cities challenge two of the final rule's requirements: that they either cover their reservoirs or treat the water leaving them for Cryptosporidium (the "cover or treat" requirement), and that they treat their source water for Cryptosporidium (the "source water treatment" requirement). The cities allege that EPA improperly conducted a cost-benefit analysis required by the SDWA, provided insufficient opportunity for notice and comment, and failed to use the best available science. They also argue that the rule is arbitrary and capricious because EPA failed to respond adequately to significant public comments and because the rule lacks support in the record and relies on a mistaken estimate of Cryptosporidium's infectivity (the amount of Cryptosporidium necessary to infect a person).

Before considering these arguments, we observe that amicus Walla Walla raises an entirely different issue, arguing that EPA improperly chose to use treatment techniques, rather than an MCL, to regulate Cryptosporidium. Because neither Walla Walla nor any other party raised this argument before the Agency during the rulemaking process, however, it is waived, and we will not consider it. *See, e.g.*, *Military Toxics Project v. EPA*, 146 F.3d 948, 956 (D.C. Cir. 1998).

II.

Portland and New York first attack the rule by claiming EPA bungled the cost-benefit analysis required by the SDWA. Section 300g-1(b)(3)(C) requires EPA to conduct a cost-benefit

analysis when proposing a treatment technique or MCL. With respect to treatment techniques, the statute says:

> When proposing a national primary drinking water regulation that includes a treatment technique . . . , the Administrator shall publish and seek public comment on an analysis of the health risk reduction benefits and costs likely to be experienced as the result of compliance with the treatment technique and alternative treatment techniques that are being considered . . . .

Id. § 300g-1(b)(3)(C)(ii). If, based on this cost-benefit analysis, EPA concludes that the costs of an MCL outweigh its benefits, the Agency may set a less stringent MCL. *Id.* § 300g-1(b)(6)(A).

Central to the issue before us, however, is whether the SDWA bars EPA from using cost-benefit analysis to establish a treatment technique for Cryptosporidium less stringent than the most stringent feasible. Section 300g-1(b)(6)(C), enacted in the wake of the Milwaukee outbreak, provides: "The Administrator may not use the authority of this paragraph . . . to establish a maximum contaminant level or treatment technique requirement for the control of Cryptosporidium." "[T]he authority of this paragraph" refers to section 300g-1(b)(6)(A), which says: "if [EPA] determines . . . that the benefits of [an MCL] . . . would not justify the costs of complying with the [MCL], [EPA] may . . . promulgate [an MCL] for the contaminant that maximizes health risk reduction benefits at a cost that is justified by the benefits." Put another way, paragraphs 6(A) and 6(C) together provide that if EPA determines that an MCL is not cost effective, the Agency may select a cost-effective MCL—unless the MCL relates to Cryptosporidium. Paragraph 6 contains an undeniable oddity:

6(C) says clearly that the power of 6(A) cannot be used to establish a treatment technique for Cryptosporidium, but 6(A) addresses only the establishment of MCLs, not treatment techniques. We conclude that the power granted by 6(A) must be understood to apply to establishing treatment techniques, lest the phrase "or treatment technique requirement" in 6(C) be surplusage. *See TRW Inc. v. Andrews*, 534 U.S. 19, 31 (2001) ("It is 'a cardinal principle of statutory construction' that 'a statute ought, upon the whole, to be so construed that, if it can be prevented, no clause, sentence, or word shall be superfluous, void, or insignificant.'" (quoting *Duncan v. Walker*, 533 U.S. 167, 174 (2001))). In summary, then, the statute prohibits EPA from using cost-benefit analysis to choose a Cryptosporidium treatment technique less stringent than the most stringent feasible.

In their opening briefs, the cities dispute none of this. In fact, they never even mention section 300g-1(b)(6)(C)'s ban on using cost-benefit analysis to choose a Cryptosporidium treatment technique. Instead, they argue that section 300g-1(b)(3)(C)(ii)—"When proposing . . . a treatment technique . . . , the Administrator shall publish . . . an analysis of the . . . benefits and costs likely to be experienced as the result of compliance with the treatment technique"—means EPA has to analyze separately the costs and benefits of each treatment technique it imposes. They then argue that EPA violated this requirement by performing only one aggregated cost-benefit analysis for the rule's two treatment techniques—the cover or treat and source water treatment requirements.

As EPA points out in its brief, however, the cities' argument ignores key sections of the statute. In particular, section 300g-1(b)(7)(A) requires EPA to choose treatment techniques that "prevent known or anticipated adverse effects on the health of persons to the extent feasible," and section 300g-

1(b)(6)(C) prohibits it from choosing less stringent treatment techniques for Cryptosporidium based on cost-benefit analysis. Thus, even if, as the cities insist, the statute requires EPA to perform separate cost-benefit analyses for each treatment technique and EPA failed to do so, the Agency's error was harmless. *See* 5 U.S.C. § 706 ("[D]ue account shall be taken of the rule of prejudicial error."); *PDK Labs. Inc. v. DEA*, 362 F.3d 786, 799 (D.C. Cir. 2004) ("If the agency's mistake did not affect the outcome, if it did not prejudice the petitioner, it would be senseless to vacate and remand for reconsideration."). Cost-benefit analysis could have affected this rulemaking only if it showed that the treatment techniques EPA proposed were infeasible—something neither city claims. Indeed, EPA's cost-benefit analysis shows that the rule will cost the vast majority of households less than $12 per year. 71 Fed. Reg. at 743.

In their reply briefs, the cities finally acknowledge section 300g-1(b)(6)(C)'s ban on using cost-benefit analysis to choose a less stringent Cryptosporidium treatment technique, but insist that EPA must still conduct the cost-benefit analysis properly for three reasons, none of which has merit. First, the cities argue that EPA can use the cost-benefit analysis for purposes of section 300g-1(b)(4), which requires the Agency to determine whether an MCL's benefits justify its costs, or section 300g-1(b)(5), which allows EPA to set a less stringent MCL if the most stringent feasible MCL would interfere with other treatment techniques. Nothing in section 300g-1(b)(4), however, allows EPA to choose a treatment technique other than the most stringent feasible, and although section 300g-1(b)(5) allows the Agency to set a less stringent MCL in the rare instance when a strict MCL would actually interfere with other treatment techniques, the cities never said this was the case here. Second, the cities claim that the cost-benefit analysis must be done properly in order to inform the public and allow EPA to make a reasoned decision. This argument fails because the

statute requires EPA to choose the most stringent feasible treatment technique for Cryptosporidium regardless of its own or the public's views about whether the benefits justify the costs; Congress already made this determination in section 300g-1(b)(6)(C). Third, the cities insist that the analysis must be done properly because a treatment technique is only "feasible" if its benefits outweigh its costs. But if "feasible" meant that the technique's benefits justified its costs, section 300g-1(b)(6)(A)—which allows EPA to use cost-benefit analysis to set less stringent standards than the most stringent feasible—would be surplusage. *See TRW*, 534 U.S. at 31. Moreover, when Congress wanted EPA to undertake cost-benefit analysis, it said so expressly. *See, e.g.*, 42 U.S.C. § 300g-1(b)(4)(C) (directing EPA to "publish a determination as to whether the benefits of the [MCL] justify . . . the costs"). Thus, "feasible" must mean what EPA says it does: technically possible and affordable. *Cf. Am. Textile Mfr.'s Inst., Inc. v. Donovan*, 452 U.S. 490, 509-12 (1981) ("[C]ost-benefit analysis . . . is not required by the [Occupational Safety and Health Act] because feasibility analysis is. . . . When Congress has intended that an agency engage in cost-benefit analysis, it has clearly indicated such intent on the face of the statute. . . . Certainly in light of its ordinary meaning, the word 'feasible' cannot be construed to articulate such congressional intent." (footnotes and citations omitted)).

Next, the cities argue that EPA's interpretation of the statute leads to an absurd result, namely that the Agency is required to conduct cost-benefit analysis when issuing Cryptosporidium regulations but prohibited from using that analysis to choose a less stringent treatment technique. We see nothing absurd about this result. Although Congress forbade EPA from using cost-benefit analysis to choose a less stringent technique, the analysis could still serve some purpose. For example, if the analysis showed that a proposed treatment technique was infeasible or

would have no effect on Cryptosporidium levels, it would influence what technique EPA imposed. Moreover, Congress's unwillingness to allow a broader role for cost-benefit analysis in setting Cryptosporidium standards is hardly surprising, given that it added section 300g-1(b)(6)(C)'s prohibition on using cost-benefit analysis to the SDWA largely in response to the deadly Milwaukee outbreak.

In rejecting the cities' challenge to EPA's cost-benefit analysis, we emphasize that nothing we say in this opinion implies either that agencies may ignore statutorily required procedures or that we will tolerate rules based on arbitrary and capricious cost-benefit analyses. In the narrow context of this case, however, where the SDWA largely prohibits EPA from using the very cost-benefit analysis the same statute requires it to prepare, remanding this rule to the Agency based on flaws in its cost-benefit analysis would be pointless. Even were EPA to redress its alleged errors, the final rule would remain unchanged, making this the epitome of harmless error.

III.

The cities next argue that the rule is arbitrary and capricious because it lacks support in the record, because it rests on a mistaken estimate of Cryptosporidium's infectivity, and because EPA failed to respond adequately to significant public comments. Highly deferential, "[t]he arbitrary and capricious standard . . . 'presumes the validity of agency action.'" *Nat'l Ass'n of Clean Air Agencies v. EPA*, 489 F.3d 1221, 1228 (D.C. Cir. 2007) (quoting *AT&T Corp. v. FCC*, 349 F.3d 692, 698 (D.C. Cir. 2003)). "We must uphold an agency's action where it 'has considered the relevant factors and articulated a rational connection between the facts found and the choice made.'" *Id.* (quoting *Allied Local & Reg'l Mfrs. Caucus v. EPA*, 215 F.3d 61, 68 (D.C. Cir. 2000)). "The requirement that agency action not be arbitrary or capricious includes a requirement that the

agency . . . respond to 'relevant' and 'significant' public comments." *Public Citizen, Inc. v. FAA*, 988 F.2d 186, 197 (D.C. Cir. 1993) (citations omitted). Measured by these standards, the challenged rule easily survives.

To begin with, the source water treatment requirement finds ample support in the record. EPA provided abundant evidence that Cryptosporidium is present in the source water of most water systems. 71 Fed. Reg. at 662-63. Indeed, in its own submissions to EPA, Portland acknowledged that tests had discovered Cryptosporidium in its source water. White Paper from Portland to EPA 5-6 (June 2005). The record also contains evidence that the newly required treatment techniques for such source water will reduce Cryptosporidium levels substantially. 71 Fed. Reg. at 662-63. Given this, the SDWA required EPA to impose these treatment techniques unless they were infeasible—something neither city claims.

Challenging the cover or treat provision, Portland argues that "[t]he Rule's requirement that finished water stored in open reservoirs be treated for Cryptosporidium . . . bears no rational relationship to the evidence in the record." Pet'r's Opening Br. 18. According to Portland, the only study in the record demonstrating the presence of Cryptosporidium in uncovered reservoirs, by Professor Mark LeChevallier, looked at reservoirs that were less protected than Portland's. New York attacks the same study, claiming it showed no Cryptosporidium threat from uncovered reservoirs.

In truth, however, EPA relied on multiple relevant studies in promulgating the rule. It cited studies showing that birds often visit uncovered reservoirs and that bird feces can be a source of Cryptosporidium. 71 Fed. Reg. at 713. EPA also documented human contamination of reservoirs in urban areas via illegal swimming or throwing things into reservoirs. *Id.*

Moreover, the LeChevallier study the cities attack is more relevant than they claim. It examined six reservoirs, some of which were quite similar to New York's and Portland's. For example, the Stanley Levine reservoir was fenced, protected from runoff, and could be contaminated only by birds and small animals—just like New York's and Portland's reservoirs. *See* Mark W. LeChevallier et al., *Protozoa in Open Reservoirs*, J. AM. WATER WORKS ASSOC., Sept. 1997, at 84, 88. Yet water leaving the reservoir contained more Cryptosporidium than it had when it entered, *id.* at 91, "most likely caused by wastes from indigenous animals or birds," *id.* at 94.

To be sure, the LeChevallier study never said whether the Cryptosporidium found was viable, and concluded that the public health risk from the level of Cryptosporidium present was likely low. *See id.* at 92-93. In its 1998 rulemaking, however, EPA determined that there was no safe level of Cryptosporidium in drinking water, a determination unchallenged by the cities. Thus, section 300g-1(b)(7)(A) required EPA to choose treatment techniques that would reduce Cryptosporidium levels as close to zero as feasible. Though New York and Portland may be right that the amount of Cryptosporidium entering their reservoirs poses a minimal threat, neither city denies that covering or treating the reservoirs will reduce the amount of Cryptosporidium in them. Thus, record evidence amply supports the rule.

Next, the cities argue that the rule relies on a mistaken estimate of Cryptosporidium's infectivity. But EPA provided a detailed explanation of its infectivity estimate and based the estimate on advice from its expert Science Advisory Board. 71 Fed. Reg. at 662. Given this, EPA's estimate easily satisfies our highly deferential standard of review. *Nat'l Wildlife Fed'n v. EPA*, 286 F.3d 554, 565 (D.C. Cir. 2002) ("We may reject an

agency's choice of a scientific model 'only when the model bears no rational relationship to the characteristics of the data to which it is applied.'" (quoting *Appalachian Power Co. v. EPA*, 135 F.3d 791, 802 (D.C. Cir. 1998))).

In any event, the cities' criticism of the infectivity estimate is beside the point. As explained above, the SDWA requires EPA to impose the most stringent feasible treatment technique for Cryptosporidium regardless of cost-benefit analysis. Thus, even if EPA's infectivity estimate was mistaken, the error was harmless. Although the alleged mistake could have caused the Agency to overstate the rule's benefits, it could not have affected the final rule because it had no impact on the feasibility of the prescribed treatment techniques.

Finally, the cities argue that EPA ignored a comment that questioned the Agency's rejection of an infectivity estimate developed by one of its scientists in a 2001 study. They also argue that in estimating the occurrence of cryptosporidiosis, EPA ignored their public health data. We disagree on both counts. In the final rule, EPA explained that more recent studies led it to believe that Cryptosporidium was more infective than the Agency previously thought. 71 Fed. Reg. at 662. EPA also explained that based on evidence from the Milwaukee outbreak and various studies, it believed that underreporting of cryptosporidiosis was severe. *Id.* at 660-61. Though New York and Portland cogently attack the merits of EPA's responses, the Agency clearly thought about the cities' objections and provided reasoned replies—all the APA requires. *See Public Citizen*, 988 F.2d at 197 ("[T]he agency's response to public comments need only 'enable us to see what major issues of policy were ventilated . . . and why the agency reacted to them as it did.'" (quoting *Auto. Parts & Accessories Ass'n v. Boyd*, 407 F.2d 330, 338 (D.C. Cir. 1968))).

Moreover, whether EPA adequately responded to these comments makes no difference because the Agency had no obligation to respond to them in the first place. "'EPA is required to give reasoned responses to all *significant* comments in a rulemaking proceeding.'" *Int'l Fabricare Inst. v. EPA*, 972 F.2d 384, 389 (D.C. Cir. 1992) (quoting *PPG Indus., Inc. v. Costle*, 630 F.2d 462, 466 (6th Cir. 1980)) (emphasis added). Significant comments are those "which, if true, raise points relevant to the agency's decision *and which, if adopted, would require a change in an agency's proposed rule*." *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35 n.58 (D.C. Cir. 1977) (emphasis added). Measured by this standard, the comments Portland and New York point to are insignificant. Because the SDWA requires EPA to impose the most stringent feasible treatment technique for Cryptosporidium, and because neither comment showed the techniques imposed here to be infeasible, the comments were incapable of affecting the final rule, and EPA could disregard them.

IV.

Portland and New York next argue that EPA provided inadequate opportunity for notice and comment. They say they were unaware that they needed to comment on the safety of uncovered reservoirs because the proposed rule, which included the risk mitigation option and did not require treating finished water for Cryptosporidium, represented a consensus of the stakeholders' committee. They also argue that EPA's request for comments on this issue was too vague. Again, we disagree.

"[A]n agency may issue rules that do not exactly coincide with the proposed rule so long as the final rule is the 'logical outgrowth' of the proposed rule." *Fertilizer Inst. v. EPA*, 935 F.2d 1303, 1311 (D.C. Cir. 1991). "Under the 'logical outgrowth' test . . . , the key question is whether commenters 'should have anticipated' that EPA might" issue the final rule it

did. *City of Waukesha v. EPA*, 320 F.3d 228, 245 (D.C. Cir. 2003) (quoting *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983)). In the proposed rule, EPA made clear that it "continue[d] to be concerned about contamination occurring in uncovered finished water storage facilities." 68 Fed. Reg. at 47,719. And EPA's first two questions in the "Request for Comments" section of that portion of the proposed rule asked: "Is it appropriate to allow systems with uncovered finished water storage facilities to implement a risk management plan or treat the effluent to inactivate viruses instead of covering the facility?" and "If systems treat the effluent of an uncovered finished water storage facility instead of covering it, should systems be required to inactivate Cryptosporidium . . . [since it has] been found to increase in uncovered storage facilities?" *Id.* From this, the cities should have known not only that EPA still had concerns about uncovered reservoirs, but also that the final rule might require covering open reservoirs or treating them for Cryptosporidium.

The cities claim that because the proposed rule flowed from a negotiated rulemaking and exactly mirrored the stakeholders' suggestions, EPA should have given clearer notice that the rule might be revised. This argument, however, ignores that the Agreement in Principle EPA executed with the stakeholders in this rulemaking expressly reserved the Agency's right to modify the final rule in response to comments. *See* Stage 2 Microbial and Disinfection Byproducts Federal Advisory Committee Agreement in Principle, 65 Fed. Reg. 83,015, 83,017 (Dec. 29, 2000). Moreover, neither the Negotiated Rulemaking Act, 5 U.S.C. §§ 561-570a, nor any other statute we know of requires an agency to provide more detailed notice of possible changes in its draft rules just because they evolve from negotiated rulemaking. Indeed, adopting the cities' suggestion would make it easier for disappointed parties to overturn negotiated rules than non-negotiated rules, thus discouraging agencies from

engaging in negotiated rulemaking—exactly the opposite of what Congress intended. *See id.* § 569 (encouraging negotiated rulemaking).

V.

This brings us to the cities' final attack on the rule—that EPA failed to use the best available science. The SDWA provides: "to the degree that an agency action is based on science, the Administrator shall use—(i) the best available, peer-reviewed science . . . ; and (ii) data collected by accepted methods or best available methods." 42 U.S.C. § 300g-1(b)(3)(A). Portland and New York claim that EPA violated this provision by using outdated science in several parts of its cost-benefit analysis.

The cities first claim that EPA should have reduced estimated tap water consumption in sensitive subpopulations (e.g., AIDS patients) because such populations tend to drink more bottled water than normal. EPA, however, rationally declined to do so because it lacked data to support this claim or estimate its impact. *See* Public Comment and Response Document for the Long Term 2 Enhanced Surface Water Treatment Rule § 20.2.2 (Dec. 2005).

The cities next argue that EPA used old data to estimate the amount of Cryptosporidium in unfiltered drinking water. Again, however, EPA explained that none of the newer available data relates to unfiltered sources, the ones covered by the source water treatment requirement. *See* 71 Fed. Reg. at 662. Thus, EPA's use of the older data was perfectly rational.

Finally, the cities argue that EPA ignored its own scientist's Cryptosporidium infectivity estimate and instead adopted one that was exceptionally high. But EPA explained that its higher estimate rested on studies done after its expert's study, and was

developed using advice from its Science Advisory Board, 71 Fed. Reg. at 662, which we have treated as an acceptable form of peer review, *see City of Waukesha*, 320 F.3d at 250. Thus, although EPA's new estimate was much higher than its previous one, the Agency provided a plausible explanation for choosing it, and it represented the best available, peer-reviewed science at the time.

Moreover, even if EPA did rely on inadequate science, its mistake—like many of the mistakes alleged by Portland and New York—was harmless. Although the mistakes the cities allege, if true, might mean that EPA's cost-benefit analysis overstated the rule's benefits, they could not have affected the final rule because the SDWA required EPA to choose the most stringent feasible treatment technique for Cryptosporidium regardless of cost-benefit analysis. Had EPA used outdated or unreliable science to determine that the rule was feasible, the cities might have a valid complaint, but none of the science the cities challenge relates to the feasibility of the required treatment techniques.

VI.

In conclusion, Portland's and New York's attacks on this rulemaking are all either inaccurate, irrelevant, or both. EPA used the best available science and provided ample evidence to support the rule, clear notice to the public about what it was considering, and adequate responses to comments. Even if EPA's cost-benefit analysis, use of science, and responses to comments were as flawed as the cities insist, these errors had no effect on the final rule and were thus harmless. We therefore deny the petition for review.

So ordered.