A Light Rein Falls on OSHA

The Supreme Court, in its ruling on the benzene case, says the agency must fatten its evidence of regulatory benefits

Perfect safety is a chimera; regulations must not strangle human activity in a search for the impossible.

—CHIEF JUSTICE WARREN BURGER

A divided Supreme Court has struck down the Occupational Safety and Health Administration's stringent new regulation of benzene, a carcinogenic chemical widely used in pesticides, industrial detergents, gasoline, and as a solvent in research laboratories and manufacturing. In a narrow decision, the Court said the agency had not proved that an older, less stringent benzene regulation is inadequate.

The 5 to 4 vote will alter OSHA's practice of tightly regulating carcinogens without determining the magnitude of the risk they pose to workers—what the Court characterized as "a view that the mere possibility that some employee somewhere in the country may confront some risk of cancer is a sufficient basis for . . . the expenditure of hundreds of millions of dollars to minimize that risk." But the decision skirts a regulatory issue that has been hotly disputed by business, environmental, and labor groups: whether the benefits of a regulation, as deduced from the magnitude of the health risks, must be balanced against the cost of compliance. The Justices are also in disagreement and decided on 2 July, the same day that the benzene decision was announced, to consider another OSHA case raising that issue.

The new regulation would have forced the petroleum and petrochemical industries to spend some $500 million (by OSHA's estimate) to reduce by 90 percent their employees' exposure to benzene. OSHA ordered the reduction after epidemiological studies of rubber workers in Ohio and shoemakers in Turkey and Italy indicated that benzene causes leukemia. Previous studies had shown that it causes chromosomal aberrations and blood disorders, including aplastic anemia, which is often fatal. The best of these studies were of workers exposed to concentrations well above OSHA's existing standard, adopted in 1971 with industry approval. At the time the new regulation was proposed, no conclusive animal test or human data were available to shed light on the low end of the dose-response curve.

OSHA claimed that the benefits of lowering the standard (from 10 to 1 part per million average airborne concentration) were "likely to be appreciable," but that any more precise estimate was impossible. Instead, the agency proceeded on two grounds: first, that adverse health effects were becoming evident at lower exposure levels than previously thought and that the reduction was needed to maintain a customary factor of safety; and second, that no safe level of exposure to a carcinogen exists, requiring that exposure be reduced to the lowest level that could be easily monitored. OSHA says the regulation would have affected about 30,000 workers at refineries and tire and rubber plants, plus 3750 laboratory workers, at costs ranging from $1390 to $82,000 per employee.

Only four members of the Court decided that OSHA's refusal to detail the regulation's benefits was unreasonable, considerably diminishing the force of the decision as a precedent for future cases. John Stevens, Warren Burger, Potter Stewart, and Lewis Powell agreed that OSHA's reluctance was unreasonable, while Thurgood Marshall, William Brennan, Byron White, and Harry Blackmun supported OSHA's position. The new regulation was struck down only when the ninth member of the Court, William Rehnquist, agreed with the first group for entirely independent reasons. After watching his brethren haggle at some length, Rehnquist concluded in a separate, concurring opinion that the law in contention was impossibly vague and therefore an unconstitutional delegation of authority by Congress. "In the case of a hazardous substance for which a safe level is either unknown or impractical, the law's language gives [the OSHA director] absolutely no indication where on the continuum of relative safety he should draw the line," Rehnquist says. The other Justices in the plurality noted simply that "we may not expect Congress to display perfect craftsmanship" and went on to address the issues more fully.

Justice Stevens, who crafted the plurality opinion, discounted OSHA's concern for a customary safety factor and focused on the agency's interest in limiting exposure to benzene to a point approaching absolute safety. Safety required by the OSHA law is not the equivalent of a risk-free job site, Stevens says. "A workplace cannot be considered 'unsafe' unless it threatens the workers" with not merely a risk of harm, as benzene does, but with a significant risk of harm. OSHA never presented empirical evidence that benzene posed a significant risk and, indeed, never sought any. "Given OSHA's . . . policy, it was in fact irrelevant whether there was any evidence," he says.

Stevens was alarmed by the prospect of the agency forcing businesses to spend millions of dollars for indeterminate benefit. "It is unreasonable to assume that Congress intended to give [OSHA] the unprecedented power over American industry that would result from the government's view. . . . In light of the fact that there are literally thousands of substances used in the workplace that have been identified as carcinogens or suspect carcinogens, the Government's theory would give OSHA power to impose enormous costs that might produce little, if any discernible benefit." In a footnote, Stevens adds that "OSHA's proposed generic cancer policy indicates that this possibility is not merely hypothetical."

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Stevens declined to address the question of balancing the costs and benefits, raised by a lower court (*Science*, 30 March 1979). Only Justice Powell supported the lower court's requirement that benefits and costs be reasonably related. In a separate, concurring opinion, Powell noted that OSHA believes the on-

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ly restraint on costs is the continued existence of affected firms or the soundness of the economy as a whole. But the cost of complying with a standard, Powell says, "may be 'bearable' and still not reasonably related to the benefits expected. A manufacturing company . . . may have financial resources that enable it to pay OSHA-ordered costs. But expenditures for unproductive purposes may limit seriously its financial ability to remain competitive and provide jobs." Powell's opinion indicates in several parts that he is aware of current concerns over lagging U.S. productivity and industry's loss of competitiveness in foreign markets. He proposes a more sensitive balancing of health and safety against the need to maintain a strong national economy.

The minority opinion is in stark contrast not only to Powell's extreme position, but to that of Stevens as well. Rather than accuse the agency of deliberately overlooking the measurement of benefits, as the majority does, the minority accepts OSHA's explanation that quantification of benefits is impossible "without making assumptions that would appear absurd to much of the medical community," in Marshall's words. "Expert after expert testified that the recorded effects of benzene exposure at higher levels justified an inference that an exposure level above 1 part per million was dangerous. If OSHA decided to wait until definitive information was available, American workers would be subjected for the indefinite future to a possibly substantial risk of benzene-induced leukemia and other illnesses."

Marshall's criticism of the plurality opinion suggests that the Court's debate was rancorous. "The plurality's discussion of the record . . . is both extraordinarily arrogant and extraordinarily unfair," he says. "The threshold finding [of significant risk] that the plurality requires is the plurality's own invention. . . . [It] bears no connection with the acts or intentions of Congress and is based only on the plurality's solicitude for the welfare of regulated industries."

Although these words may comfort the agency, its directors now face the task of determining how to comply with the plurality's wishes. Stevens wrote that "the requirement that a 'significant' risk be identified is not a mathematical straitjacket. . . . So long as they are supported by a body of reputable scientific thought, the Agency is free to use conservative assumptions in interpreting the data . . . risking error on the side of over-protection." In other words, the agency can use the most conservative statistical models of extrapolation to estimate how many lives the regulation would save.

William Butler, an attorney for the Environmental Defense Fund, says it should be easy for the agency to drum up conservative estimates that support a finding of significant risk. "If that's what the court wants, that's what it will get, even though it won't mean much." Steven Jellinek, the assistant administrator for toxic substances at the Environmental Protection Agency, notes that EPA prepares such benefits estimates now. "We feel uncomfortable about doing it because the analytic tools are so imperfect. But the statutes under which we operate already require it, for the most part."

Clearly, OSHA still finds the precise quantification of benefits untenable, a point of view supported in recent reports on health risks by the National Academy of Sciences and others, and reflected in OSHA's new cancer policy. These endorsements were not included in the benzene record itself, prompting some suggestions that in reproposing the standard, OSHA need only use the reports to buttress its original argument. David Doniger, an attorney at the Natural Resources Defense Council, notes that the four-Justice minority might then pick up the vote of Powell, who sided with the plurality. Even though he warmly embraces cost-benefit balancing, Powell says the Court's opinion does not require numerical quantification in every case. Substantial evidence that quantification is impossible would suffice, Powell suggests, so long as the evidence is in the administrative record.

Diane Berkeley, an OSHA attorney who worked on the benzene case, is wary of such a gutsy approach. "The agency hasn't decided it yet, but the question is really how much you want to risk—both on the cancer policy and benzene—by relitigating with better evidence against quantification, especially when the Court said that conservative assumptions are okay." In hindsight, she says, it would have been better to have had more complete benefits data. The plurality suggests that OSHA obtain the data by setting a less stringent exposure standard and imposing rigorous requirements for medical surveillance of all workers exposed below that level.

Perhaps the greatest uncertainty is how far the Court will defer to OSHA's judgment on what a significant risk is. Both the plurality and minority agree the decision is largely a policy consideration not easily second-guessed by judicial review. Doniger says the Justices might defer even if the agency claims the benzene regulation will prevent only a few deaths. Berkeley agrees: "A judge would be extremely reluctant to overturn a finding that one to two deaths per year is a significant risk of harm." But she suggests the agency can show the number of deaths from benzene-induced leukemia is far greater, partly by using studies of benzene completed since the regulation was initially proposed in 1977.

Arthur Sampson, who litigated the American Petroleum Institute challenge to the benzene standard, says that OSHA will have to show that more than just a few deaths will be prevented. "OSHA doesn't have a blank check on the meaning of significant risk," he says. Despite all the uncertainties, he calls the decision a major victory. "This represents a mighty big turnaround in judicial review of OSHA regulations. It must be a strong message to that agency and others as well."

"If that's what the Court wants, that's what it will get, even though it won't mean much," Butler says.

Justice Marshall takes a different view in the minority's opinion. "I am confident the approach taken today will eventually be abandoned. . . . In all likelihood, [it] will come to be regarded as an extreme reaction to a regulatory scheme that, as the members of the plurality perceived it, imposed an unduly harsh burden on regulated industries."

On the last day of its recent term, the Court agreed to reconsider many of these issues by accepting for review a challenge by the steel industry to OSHA's regulation of cancer-causing emissions from coke ovens. (Coke ovens produce the fuel used for making steel in blast furnaces.) The facts in the case are somewhat different—OSHA's staff had estimated that the regulation would prevent 200 deaths—but it too raises the dispute over cost-benefit balancing. Presumably, it will provide the Court with an opportunity for more authoritative judgment.—R. JEFFREY SMITH