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OSHA's Rulemaking Authority Under the Occupational Safety and Health Act: Marshall v. American Petroleum Institute

INTRODUCTION

American workers today face increasing dangers from exposure to toxic and hazardous substances which are commonly found in the workplace. The responsibility for regulating the use of dangerous substances in the working environment is vested in the Occupational Safety and Health Administration (OSHA). Under the Occupational Safety and Health Act, the Secretary of Labor is given broad authority to promulgate and enforce health and safety regulations. OSHA regulations, particularly those dealing with

1. Nationwide surveys show that 20 to 25% of all workers are exposed to serious safety and health hazards. R. Quinn and G. Staines, The 1977 Quality of Employment Survey (Ann Arbor, Survey Research Center, University of Michigan).
2. The Occupational Safety and Health Administration was established by the Secretary of Labor to administer the Occupational Safety and Health Act. 36 Fed. Reg. 8,754 (1971) [hereinafter referred to as “OSHA” or “the Agency”].
3. 29 U.S.C. §§ 651-678 (1976) [hereinafter referred to as “OSHA” or “the Act”]. § 651(b) provides:
   The Congress declares it to be its purpose and policy, through the exercise of its power to regulate commerce among the several States and with foreign nations and to provide for the general welfare, to assure so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources . . . .
   See Indus. Union Dep’t, AFL-CIO v. Hodgson, 499 F.2d 467, 475 (D.C. Cir. 1974) (the protection of health of employees is the overriding concern of OSHA).
   The Act was passed in response to mounting concern over alarming industrial accident statistics and health problems in the American workplace. While Congress was considering the Act, it was reported that in the previous four years more Americans had been killed on the job than in Vietnam, that industrial accidents disabled more than two million people per year, and that approximately 390,000 persons were victims of occupational disease. See S. Rep. No. 1282, 91st Cong., 2d Sess. 2-3, reprinted in [1970] U.S. CODE CONG. & AD. NEWS 5178-79.
4. An occupational safety and health standard is “a standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment.” 29 U.S.C. § 652(8) (1976).
   Each employer must comply with two provisions of the Act. First, § 5(a)(1) requires the employer to furnish employment and a place of employment “free from recognized hazards that are causing or are likely to cause death or serious physical harm . . . .” 29 U.S.C. § 654(a)(1) (1976). Second, § 5(a)(2) of the Act requires the employer to comply with occupational safety and health standards promulgated under the Act. 29 U.S.C. § 654(a)(2) (1976).
toxic and hazardous substances, have been challenged and harshly criticized by industry. Upon challenge, the courts have generally

The types of standards established by the Act are "interim" standards, "permanent" standards, and "emergency temporary" standards. 29 U.S.C. § 655 (1976).

OSHA's specific duty to regulate toxic or harmful substances, including carcinogens, is covered in 29 U.S.C. § 655(b)(5) (1976), which provides:

The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life. Development of standards under this subsection shall be based upon research, demonstrations, experiments, and such other information as may be appropriate. In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws. Whenever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired.

A carcinogen is a substance, chemical, physical, or biological, which increases the incidence of cancer. A controversy exists as to whether carcinogenicity should include excess incidences of both benign and malignant tumors, or only malignant ones. The generally accepted view is to include both benign and malignant tumors. See Kraus, Environmental Carcinogenisis: Regulation on the Frontiers of Science, 7 ENV. L. 83 (1976) for a discussion of the unique problems in effective regulatory control of carcinogens.


Only two other health standards have been promulgated during the history of OSHA: standards regulating occupational exposures to inorganic lead and cotton dust. The cotton dust standard was contested and affirmed in AFL-CIO v. Marshall, 617 F.2d 636 (D.C. Cir. 1979), petition for cert. granted, ___ U.S. ___ (1980).

6. OSHA, having created literally thousands of safety standards, 29 C.F.R. § 1910 et seq. (1979), has been criticized by industry for "petty" regulation. Under the Carter Administration, the Agency promised to change its focus from the regulation of petty safety hazards to
deferred to OSHA's technical expertise and have upheld hazardous substance regulations.\(^6\)

This tradition of judicial deference, however, has been signifi-

the control of toxic and hazardous substances. 6 Occupational Safety and Health Reporter (BNA) 1587 (1977). In an October, 1980 address to the Chemical Manufacturers' Association, OSHA Administrator, Eula Bingham, stated that while the Agency had come an enormous distance in protecting workers in the last 10 years, worker protection from toxic substances will become even more important in the 1980's. Bingham predicted that over the next decade industry attitudes toward worker protection will change, more protection from toxic substances will be built into industrial plants in the form of enclosed systems, and that OSHA standards will become process rather than substance oriented. 10 Occupational Safety and Health Reporter (BNA) 600 (1980).

OSHA's shift to serious occupational health threats is in keeping with at least one aspect of congressional concern expressed in the legislative history:

Occupational diseases which first commanded attention at the beginning of the Industrial Revolution are still undermining the health of workers. Substantial numbers, even today, fall victim to ancient industrial poisons such as lead and mercury. Workers in the dusty trades still contract various respiratory diseases. Other materials long in industrial use are only now being discovered to have toxic effects. In addition, technological advances and new processes in American industry have brought numerous new hazards to the workplace. Carcinogenic chemicals, lasers, ultrasonic energy, beryllium metal, epoxy resins, pesticides, among others, all present incipient threats to the health of workers. Indeed, new materials and processes are being introduced into industry at a much faster rate than the present meager resources of occupational health can keep up with. It is estimated that every 20 minutes a new and potentially toxic chemical is introduced into industry. New processes and new sources of energy present occupational health problems of unprecedented complexity.


A major criticism of OSHA has been the alleged increases in costs of production. Critics say that OSHA imposes high costs but provides few or no benefits. For a discussion indicating that the law has not had the exaggerated cost impact its critics have charged, but has had some measurable positive impacts, see Ginnold, A View of the Costs and Benefits of the Job Safety and Health Act, Monthly Labor Review, U.S. Dept. of Labor Bureau of Labor Statistics (August, 1980).

7. 29 U.S.C. § 655(f) (1976) provides:

Any person who may be adversely affected by a standard issued under this section may at any time prior to the sixtieth day after such standard is promulgated file a petition challenging the validity of such standard with the United States court of appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such standard. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary. The filing of such petition shall not, unless otherwise ordered by the court, operate as a stay of the standard. The determinations of the Secretary shall be conclusive if supported by substantial evidence in the record considered as a whole.

cantly undermined by the Supreme Court in *Marshall v. American Petroleum Institute*. In *Marshall*, the Court invalidated OSHA’s permanent standard governing worker exposure to benzene. The Court declared that prior to the issuance of a permanent standard, the Secretary of Labor must find “that the toxic substance in question poses a significant health risk in the workplace, and that a new, lower standard is therefore ‘reasonably necessary or appropriate to provide safe or healthful employment.’”

The Supreme Court’s opinion in *Marshall* has great significance for future OSHA regulation of toxic substances and carcinogens. The newly articulated threshold requirement imposes a stringent evidentiary burden upon OSHA which could severely limit the Agency’s future ability to regulate toxic substances. Furthermore, the *Marshall* decision undermines OSHA’s authority to assure the highest degree of health and safety protection as well as its authority to promulgate standards based upon policy judgments when

9. 48 U.S.L.W. 5022 (1980). The Court characterized the case as “an unusually important case of first impression.” *Id.* at 5024.

10. *Id.* at 5022. OSHA’s benzene standard required employers to assure that no employee be exposed to an airborne concentration of benzene in excess of one part benzene per million parts of air (1 ppm) averaged over an eight hour day. It required employers to assure that no employee be exposed to dermal contact with liquid benzene, excluding liquid mixtures containing 0.5% or less benzene (and after a 3 year grace period, 0.1%), and imposed labeling, monitoring, and medical testing requirements, 29 C.F.R. § 1910.1028 (1979).

Benzene is a hydrocarbon compound (C₆H₅) manufactured for many industrial uses. It is a colorless, aromatic liquid that evaporates rapidly under ordinary atmospheric conditions. Eleven billion pounds of benzene were produced in the United States in 1976, 94% by the petroleum refining and petrochemical industries and 6% by the steel industry. Benzene’s primary use is in the manufacture of other organic chemicals, as well as motor fuels, solvents, detergents, paints and pesticides. 43 Fed. Reg. 5918 (1978). Industries currently using benzene include the petroleum, coking operations, chemical processing, printing, lithograph, rubber, paint, varnish, stain remover, and adhesives industries. 43 Fed. Reg. 5935 (1978).

Benzene is an acknowledged toxic substance whose principal risk of harm comes from inhalation of its vapors. When benzene vapors are inhaled, the benzene diffuses rapidly through the lungs and is quickly absorbed into the blood. Exposure to high concentrations produces an almost immediate effect on the central nervous system. Inhalations of concentrations of 20,000 ppm can be fatal; exposure to milder, though still high concentrations of benzene (250-500 ppm) can cause vertigo, nervous excitation, headache, nausea, and breathlessness. 43 Fed. Reg. 5921 (1978).

Benzene’s acute and chronic nonmalignant effects have been recognized since 1900. The most common nonmalignant effects of chronic exposure to low concentration levels (25-40 ppm) are non-functioning bone marrow and deficiencies in the formed elements of the blood, i.e., reduced red blood cell count (anemia), reduced white blood cell count (leukopenia), and reduced platelet count (thrombocytopenia). Chromosomal aberrations have also been associated with chronic benzene exposure, and dermatitis and other dermal infections can be caused by bodily contact with liquid benzene. 43 Fed. Reg. 5924-25 (1978).

This article will review the rulemaking framework within which OSHA regulates the use of toxic substances in the workplace. In this regard, pre-Marshall circuit court decisions dealing with OSHA’s hazardous substance regulations will be discussed. Finally, this article will focus on Marshall v. American Petroleum Institute, and demonstrate the manner in which this decision limits OSHA’s future ability to regulate the use of hazardous substances in the workplace.

BACKGROUND: OSHA REGULATION OF TOXIC AND HAZARDOUS SUBSTANCES IN THE WORKPLACE

OSHA’s Rulemaking Procedure

Pursuant to the Occupational Safety and Health Act, the Secretary of Labor is authorized to issue permanent health standards which are “reasonably necessary or appropriate to provide safe or healthful employment and places of employment.”12 When the Secretary determines that a permanent standard should be issued or revised,13 the proposed rule is published in the Federal Register, followed by public opportunity for written comment within 30 days of publication.14 OSHA procedure allows for public hearings upon request of interested parties filing written objections to the proposed rule.15 The “rulemaking record,”16 which OSHA uses to

13. This determination may arise as a result of information provided by an “interested person,” an employer, an employee organization, a national standards organization, the Secretary of the Department of Health and Human Services (formerly H.E.W., see 20 U.S.C. § 3508), the National Institute for Occupational Safety and Health (NIOSH), or a state or political subdivision. 29 U.S.C. § 655(b)(1976). The Secretary may, but need not, request from an advisory committee with both labor and management representation a recommendation with respect to a standard. See Nat’l Roofing Contractors Ass’n v. Brennan, 495 F.2d 1294, 1296-97 (7th Cir. 1974), where “improper” committee composition was unsuccessfully challenged as grounds for invalidation of the regulation. Appointment of an advisory committee is optional and its recommendations are only advisory.
14. 29 U.S.C. § 655(b)(2) (1976). This procedure is often referred to as informal or “notice and comment” rulemaking, analogous to § 4 of the Administrative Procedure Act, 5 U.S.C. § 553 (1976). OSHA itself is a self-contained statute and does not depend upon reference to the Administrative Procedure Act for specifications of procedures to be followed.
15. 29 U.S.C. § 655(b)(3) (1976). A public oral hearing is generally only required in formal rulemaking procedures. The public hearing requirement is not satisfied by the mere “notice and comment” requirement since the section provides that the Secretary designate a time and a place for the hearing. Id. But see United States v. Florida East Coast Rwy. Co., 410 U.S. 224 (1973) (word “hearing” alone does not require that a formal hearing be held but may be satisfied by notice and comment).
support the permanent standard, is comprised of comments and exhibits received prior to the hearing, the written and oral testimony of the hearing participants, and the post-hearing comments and briefs.\(^7\)

Within 60 days after the hearing, the Secretary issues the permanent standard, along with a statement indicating which data in the rulemaking record is being relied upon, why the data shows that the substance is harmful, and why the particular standards were chosen to correct the unsafe condition.\(^8\) In addition, if a permanent rule differs substantially from a pre-existing standard, the Secretary must give reasons why the revised standards will better effectuate the purposes of the Act.\(^9\) The Act further provides that any person who is adversely affected by the newly issued standard

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1. See Assoc. Indus. v. Dep't of Labor, 487 F.2d 342, 348-49 (2d Cir. 1973); Indus. Union Dep't, AFL-CIO v. Hodgson, 499 F.2d 467, 473 (D.C. Cir. 1974); 29 C.F.R. § 1911.15(a)(1-2) (1979). A regulation promulgated by the Secretary of Labor requires that a qualified hearing officer preside over the oral hearing and that the examiner allow for cross-examination on crucial issues. 29 C.F.R. § 1911.15(b)(1-2) (1979). A verbatim transcript of the hearing is made, so overall the hearings are more formal than the traditional rulemaking process. Id. at (b)(3).

2. Formal rulemaking procedures provide a detailed record upon which courts can conduct a review. This record, typically consisting of documents (letters, studies, reports, and statements) and hearing transcripts, becomes the sole basis on which the reviewing court may determine if the rule is supported by “substantial evidence.” 4 K. Davis, Administrative Law Treatise § 29.03 (1958).

3. It is anomalous that the record is in part created under the conditions of a formal proceeding, but also consists of “materials received outside the bounds of the oral hearing and untested by anything approaching the adversary process.” Indus. Union Dep't, AFL-CIO v. Hodgson, 499 F.2d 467, 474 (D.C. Cir. 1974). Reflecting the legislative nature of informal rulemaking, the record often does not formally display the full range of considerations before the Agency when the decision to issue a standard was made. Pedersen, Formal Records and Informal Rulemaking, 85 Yale L.J. 38, 62 (1975). This article discusses the internal processes of the Environmental Protection Agency in developing a rulemaking record. The article is also valuable in its creative approach to rulemaking procedure.


5. This requirement is fleshed out by a regulation, 29 C.F.R. § 1911, 18(b) (1979), which provides:

   Any rule or standard . . . shall incorporate a concise general statement of its basis and purpose. The statement is not required to include specific and detailed findings and conclusions of the kind customarily associated with formal proceedings. However, the statement will show the significant issues which have been faced, and will articulate the rationale for their solution.

   The Secretary is not required to file findings of fact, but is required to give a statement of reasons which may include policy determinations as well as factual findings. Synthetic Organic Chemical Mfrs. Assoc. v. Brennan, 503 F.2d 1155 (3rd Cir. 1974).

may petition the court for judicial review.\(^{21}\)

**Judicial Review of OSHA Action: Traditional Deference to OSHA Regulation**

A court of appeals,\(^ {22}\) in reviewing an OSHA standard, must determine whether the Secretary acted within the scope of authority granted to him by the Act.\(^ {28}\) Section 6(f) of the Act provides that "the determinations of the Secretary shall be conclusive if supported by substantial evidence\(^ {24}\) in the record considered as a whole."\(^ {26}\) While this provision establishes a strong presumption of rule validity, the court must still find that the Agency's rulemaking

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24. The insertion of the "substantial evidence" standard of review, customarily associated with formal rulemaking, was a deliberate legislative compromise between the House and Senate versions of the original bill to provide for review that would be more stringent than the traditional and narrower "arbitrary and capricious" or "rationality" standard usually associated with informal rulemaking. In Indus. Union Dep't, AFL-CIO v. Hodgson, Judge McGowan explained this anomalous combination as follows:

The substantial evidence test has customarily been directed to adjudicatory proceedings or formal rulemaking. The hybrid nature of OSHA in this respect can be explained historically, if not logically, as a legislative compromise. The Conference Report reflects that the Senate bill called for informal rulemaking, but the House version specified formal rulemaking and substantial evidence review. The House receded on the procedure for promulgating standards, but the substantial evidence standard of review was adopted.

499 F.2d 467, 473 (D.C. Cir. 1974). For a more detailed discussion of these legislative events, see Associated Indus. of N.Y. State v. Dep't of Labor, 487 F.2d 342 (2d Cir. 1973).


In addition to pre-enforcement review, the validity of a standard may also be challenged in defending an enforcement proceeding. See S. REP No. 1281, 91st Cong., 2d Sess. _ (1970) reprinted in [1970] U.S. CODE CONG. & Ap. News 5177, 5184, where the report reads: "While this [§ 655 (f)] would be the exclusive method for obtaining pre-enforcement judicial review of a standard, the provision does not foreclose an employer from challenging the validity of a standard during an enforcement proceeding." See Atlantic & Gulf Stevedores, Inc. v. OSHRC, 534 F.2d 541, 551-52, (3d Cir. 1976), where the court held that the scope of review was narrower in an enforcement proceeding than upon direct review, and that the affirmative defense of invalidity requires an employer to produce evidence that the regulation is "arbitrary, capricious, unreasonable or contrary to law." See also, Arkansas Best Freight Systems, Inc. v. OSHRC, 529 F.2d 649, 653 (8th Cir. 1976).
record contains adequate support for its regulation. Pre-Marshall decisions relied on the "substantial evidence" standard in deciding whether to uphold or strike down an OSHA regulation. Although judicial review necessitates an extensive evaluation of the informal rulemaking record, such record in toxic substance regulation is often not well-suited for judicial scrutiny. An understanding of the difficulties inherent in the judicial process of reviewing OSHA regulations is guided by the consideration of three matters: the court-agency relationship, the substantial evidence standard, and the pre-Marshall decisions.

The Court-Agency Relationship

Congress has engaged administrative agencies and the courts in a "partnership" designed to further the public interest and to ensure reasoned decision-making. Disagreement exists, however, over the courts' role in reviewing agency regulations. Recent decisions favor a "hard look" approach by a court in reviewing both

26. The argument has also been made that this provision strongly suggests that the reviewing court is limited to matters that were brought out in the rulemaking proceeding. See Currie, note 22 supra, at 1129.

27. See Universal Camera Corp. v. NLRB, 349 U.S. 474, 488 (1951); Ethyl Corp. v. EPA, 541 F.2d 1, 34 (D.C. Cir. 1976), cert. denied, 426 U.S. 941 (1976); Associated Indus. of N.Y. v. Dep't of Labor, 487 F.2d 342, 354 (2nd Cir. 1973) ("With the agencies and the courts in a new form of uneasy partnership... the former must take reasonable steps to enable the latter to carry out the tasks that Congress has imposed upon them."); Int'l Harvester Co. v. Ruckelshaus, 478 F.2d 615, 647, 650 (D.C. Cir. 1973) (court's role in judicial review embraces that of constructive co-operation with the agency involved in furtherance of public interest); Environmental Defense Fund, Inc. v. Ruckelshaus, 439 F.2d 584, 587 (D.C. Cir. 1971) ("We stand on the threshold of a new era in the history of the long and fruitful collaboration of administrative agencies and reviewing courts.")

28. The debate has centered on positions taken by Judges Bazelon and Leventhal of the District of Columbia Court of Appeals. Judge Bazelon, believing that substantial evidence review of scientific evidence by "technically illiterate judges is dangerously unreliable," espouses that good procedures ensure good substance, and would have the courts scrutinize only the agency process. Ethyl Corp. v. EPA, 541 F.2d 1, 66-67 (D.C. Cir. 1976) (Bazelon, J. concurring) cert. denied, 426 U.S. 941 (1976). In Ethyl Corp., Judge Bazelon states: "The process [of] making a de novo evaluation of the scientific evidence inevitably invites judges of opposing views to make plausible-sounding, but simplistic, judgments of the relative weight to be afforded various pieces of technical data." Id. at 66.

Judge Leventhal, on the other hand, believes that the court should take a "hard look" at both the substance and procedure of an agency's decision, "to penetrate to the underlying decisions of the agency, to satisfy itself that the agency has exercised a reasoned discretion with reasons that do not deviate from or ignore the ascertainable legislative intent." Greater Boston Television Corp. v. FCC, 444 F.2d 841, 850 (D.C. Cir. 1970), cert. denied, 403 U.S. 923 (1971).

For more extensive treatment of this subject, see Verkuil, Judicial Review of Informal Rulemaking, 60 Va. L. R. 185 (1974).
procedures and substantive issues involved in agency action.29

The court, in its review of an agency regulation, must look to the precise record that the agency considered.30 In promulgating a standard, OSHA may not go beyond the record.31 To assist the court in its review of the record, the agency specifies which factual evidence and policy considerations it relied upon in adopting a regulation.32 This requires explication of the assumptions underlying predictions33 and the basis for the agency’s resolution of conflicts and ambiguities.34

The role of the court, however, is not clearly defined in instances where an agency’s action is based primarily upon policy and inconclusive evidence. This lack of a definitive judicial role is particularly apparent in OSHA regulation of toxic substances. Such regulation is frequently promulgated on conflicting and inconclusive findings by OSHA and industry experts. Agency regulation of health and safety must often be based upon policy judgments rather than scientific facts.35 The Agency, in formulating toxic and

29. Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519 (1978). In Vermont Yankee, the Court emphatically rejected Judge Bazelon’s narrow view that appropriate procedures can assure a “correct” result. The Court also stated that reviewing courts cannot require procedures more formal than those authorized by statute, although it did acknowledge the rare possibility of circumstances that might justify reversal of an agency action because of failure to use procedures beyond those required by statute. Id. at 542. See also Kleppe v. Sierra Club, 427 U.S. 390, 410 (1976) (“The only role for a reviewing court is to insure that the agency has taken a ‘hard look’ at environmental consequences . . . .”); Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971); Environmental Defense Fund v. Ruckelshaus, 439 F.2d 584 (D.C. Cir. 1971).


31. Cf. United States v. Allegheny-Ludlum Steel, 406 U.S. 742, 756-57 (1972) (in review, the court may not consider post-hoc rationalization of counsel or agency members, nor evidentiary materials that were not considered by the agency).

32. “The administrator may apply his expertise to draw conclusions from suspected, but not completely substantiated relationships between facts, from trends among facts . . . from probative preliminary data not yet certifiable as ‘fact,’ and the like.” Ethyl Corp v. EPA, 541 F.2d 1, 28 (D.C. Cir. 1976).

33. AFL-CIO v. Marshall, 617 F.2d 636, 651 n.64 (D.C. Cir. 1979), cert. granted, ___ U.S. ___(1980); Ethyl Corp. v. EPA, 541 F.2d 1, 67 (D.C. Cir.1976) (Bazelon, J., concurring); See also SEC v. Chenery Corp., 318 U.S. 80, 87 (1943).


But in a statute like OSHA, where the decision making vested in the Secretary is legislative in character, there are areas where explicit factual findings are not possible, and the act of decision is essentially a prediction based upon pure legislative judgment as when a Congresseman decides to vote for or against a particular bill. See also Society of the Plastics Indus., Inc. v. OSHA, 509 F.2d 1301, 1308 (2d Cir. 1975),
hazardous substance regulations, cannot be expected to resolve scientific questions which the scientific community itself has been unable to answer. Thus, courts have recognized that certain regulations must be predicated in part on legislative policy choices if the Agency is to take any action. Accordingly, an agency such as OSHA has some leeway where its findings must be made on "the frontiers of scientific knowledge." The extent of the margin permitted by a reviewing court will determine whether agency action is affirmed or rejected.

Judicial review of OSHA's record is difficult, if not meaningless, to the extent that the record contains more generalized than specific information, to the extent that it does not contain information tested by cross-examination, and insofar as it contains merely conclusory information based on data gathered by interested parties. The Agency's broad authority to promulgate toxic and harmful substance regulations is undefined and will shift under the scrutiny of a reviewing court. A court that favors conclusive findings of fact and demands scientific certainty is not likely to affirm policy-dominated regulations. A court, however, that defers to the balancing of interests and the relative risks of underprotection versus overprotection, as characterized the Agency's legislative judgments, is more likely to uphold the Agency's regulation. The court's view and application of the substantial evidence test will often be determinative of whether an OSHA safety regulation will be affirmed or rejected.

The Substantial Evidence Test

In reviewing OSHA standards, the court is required to sustain only those standards which are supported by substantial evidence in the record as a whole. The "substantial evidence" standard of cert. denied 421 U.S. 922 (1975).

36. For an extensive discussion of the difficulties inherent in regulating carcinogens and the consequent necessity of making policy choices because of many unanswered questions, see McGarity, Substantive and Procedural Discretion in Administrative Resolution of Science Policy Questions: Regulating Carcinogens in EPA and OSHA, 67 Geo. L. J. 729 (1979).

37. Indus. Union Dep't, AFL-CIO v. Hodgson, 499 F.2d 467, 474 (D.C. Cir. 1974). This granting of leeway is further reinforced by the precise language of 29 U.S.C. § 655(b)(5), which allows OSHA to regulate on the basis of the "best available evidence."


judicial review falls between the broad and intrusive "clearly erroneous" test and the narrow and deferential "arbitrary and capricious" test. The standard is codified in the Administrative Procedures Act and has a long and confused history. Originally, the substantial evidence test was applied literally to mean that the evidence supporting an agency regulation must be substantial. The test has since been refined to entail a reasonable weighing of both the supportive and countervailing evidence underlying the Agency's decision.

In Consolo v. Federal Maritime Commission, the Supreme Court defined the substantial evidence test as such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. The Court recognized that even though inconsistent


40. The "clearly erroneous" standard of review allows a reviewing court to reverse a trial court or administrative agency when the reviewing court takes a contrary view of the evidence even though there is evidence to support the finding. 4 K. Davis, ADMINISTRATIVE LAW TREATISE § 29.02 (1958). The Supreme Court has explained the test as follows: "A finding is 'clearly erroneous' when although there is evidence to support it, the reviewing court on the entire evidence is left with the definite and firm conviction that a mistake has been committed." United States v. United States Gypsum Co., 333 U.S. 364, 395 (1948).

41. See K. Davis, ADMINISTRATIVE LAW OF THE SEVENTIES §§ 29.01-2 (1976). The "arbitrary and capricious" test is codified in the Administrative Procedure Act, 5 U.S.C. § 706(2)(A) (1976). Until the last decade, this was the standard of review typically applied to informal rulemaking. This standard is a highly deferential one which presumes that agency action is valid, but allows the court to strike agency action found to be "arbitrary, capricious, . . . [or] an abuse of discretion." May Trucking Co. v. United States, 593 F.2d 1349, 1352 (D.C. Cir. 1979). It remains a basic standard of review along with other criteria of legality and constitutionality even when the substantial evidence test applies. Id.

42. 5 U.S.C. § 706(2)(E) (1976). The "substantial evidence" test in the APA and in other agency contexts is associated with formal rulemaking proceedings. A formal rulemaking proceeding is an adversarial proceeding much like a common law trial in which the parties present their positions to an administrative judge. The parties may present oral and documentary evidence and cross-examine witnesses. The transcript of testimony, exhibits, and documents comprise the sole record from which the administrative law judge must make a determination. The same record is the exclusive basis upon which the reviewing court determines if a rule is supported by substantial evidence.

43. The evidence in support of a fact finding is "substantial" when from it an inference of the fact may be reasonably drawn. B. Schwartz, ADMINISTRATIVE LAW, 657 (1977).

44. Universal Camera Corp. v. NLRB, 340 U.S. 474, 481-82, 488 (1951); AFL-CIO v. Marshall, 617 F.2d 636, 649 n.44 (D.C. Cir. 1979). In Universal Camera, the Court stated that the requirement to take into account countervailing evidence did not alter the court's fundamental duty to uphold the agency's choice between two conflicting views, "even though the court would justifiably have made a different choice had the matter been before it de novo." 340 U.S. at 488. See also Palmer v. Celebrezze, 334 F.2d 306 (3rd Cir. 1964).


46. Id. at 620, citing Consol. Edison Co. v. NLRB, 305 U.S. 197, 229 (1938).
conclusions can be drawn from the same record, this does not necessitate the rejection of an OSHA regulation. An Agency determination can be supported by substantial evidence in the record as a whole despite the possibility of drawing two inconsistent conclusions from that record.47

Applying the substantial evidence test is problematic in two respects. First, the record of an informal rulemaking proceeding, incorporated in an OSHA regulation, is not as refined as that of a formal procedure. This renders meaningful review difficult.48 Second, OSHA toxic substance regulation is essentially legislative in character and is often based on policy objectives rather than empirical data. A stringent application of a substantial evidence standard to policy-dominated regulation possibly could preclude the formulation of toxic substance regulations. Previous decisions applying the test to hazardous substance regulation have typically relied upon the expertise and knowledge of OSHA.

47. Id.; NLRB v. Nevada Consol. Copper Corp., 316 U.S. 105, 106 (1942); Keele Hair and Scalp Specialista, Inc. v. FTC, 275 F.2d 18, 21 (5th Cir. 1960). Another formulation of substantial evidence is found in United States v. Carlo Bianchi & Co., 373 U.S. 709 (1963), where Justice Harlan said it is a "term of art to describe the basis on which an administrative record is to be judged by a reviewing court. This standard goes to the reasonableness of what the agency did on the basis of the evidence before it." Id. at 715 (emphasis omitted). Yet another formulation of the standard is that it is a test of the reasonableness not the rightness of agency findings of fact. "Findings of fact cannot and will not be set aside if the evidence in the record reasonably supports the administrative conclusion, even though suggested alternative conclusions may be equally or even more reasonable and persuasive." Colonial Stores v. FTC, 450 F.2d 733, 739 (5th Cir. 1971).

48. The inconsistency of pairing informal rulemaking with the "substantial evidence" review standard was described in Mobil Oil Corp. v. Federal Power Comm'n, 483 F.2d 1238, 1260 (D.C. Cir. 1973) as follows:

Informal comments simply create a record that satisfies the substantial evidence test. Even if controverting information is submitted in the form of comments by adverse parties, the procedure employed cannot be relied upon as adequate. A "whole record" . . . does not consist merely of raw data . . . it includes the process of testing and illumination ordinarily associated with adversary, adjudicative procedures. Without this critical element, informal comments, even by adverse parties, are two halves that do not make a whole.

The difficulty of reviewing a voluminous record was pointed out in Florida Peach Growers Ass'n, Inc. v. Dep't of Labor, 489 F.2d 120, 129 (5th Cir. 1974), where the court said, "The administrative record is comprised of some 238 documents occupying approximately two and one half feet of shelf space. It includes such items as letters between Government officials, volumes of transcribed hearings, Senate hearings and committee reports . . . ." See also, AFL-CIO v. Marshall, 617 F.2d 636, 676 n.259 (D.C. Cir. 1979), cert. granted - U.S. - (1980)(the court characterized the record as massive and unwieldy and offered the agency constructive criticism).
Judicial Deference to Policy Choices

The circuit courts, in reviewing OSHA hazardous and toxic substance standards, have generally deferred to OSHA’s findings and have upheld the challenged regulations. Although the courts have recognized that both factual findings and policy choices must be scrutinized under the substantial evidence standard, there has been some disagreement over the level of scrutiny appropriate for policy choices. In *Industrial Union Department, AFL-CIO v. Hodgson*, the District of Columbia Court of Appeals upheld OSHA’s asbestos standard. In so doing, the court acknowledged that some of the issues which the regulation sought to address “are on the frontiers of scientific knowledge.” The court further recognized that formulation of hazardous substance regulations necessitates policy choices which cannot be anchored securely in demonstrable fact. Therefore, the court concluded that regulations based upon policy questions are not susceptible to the same kind of verification as are factual questions.

In *AFL-CIO v. Marshall*, the same court also deferred to OSHA regulations governing the use of toxic substances in the workplace. In upholding OSHA’s cotton dust control regulation, the court found the regulation was warranted by the evidence since “OSHA’s mandate necessarily requires it to act - even if information is incomplete - when the best available evidence indicates a


50. 499 F.2d 467 (D.C. Cir. 1974). This court rejected the claim that the substantial evidence test should apply only to factual determinations. Such a narrow stance would leave the policy judgments behind a challenged health and safety standard reviewable only under the “arbitrary and capricious” test. Id. at 473. Instead, the court concluded that policy inferences must not escape “exacting scrutiny” even though inferences cannot be strictly verified. Id. at 475. See also Associated Indus. v. Dep’t of Labor, 487 F.2d 342, 349 (2d Cir. 1973).


52. Id. at 475. Furthermore, the court recognized that feasibility factors may be properly considered by the Agency. Although such factors may not have the effect of tempering protective requirements, they would not necessarily alleviate financial burdens or prevent the economic demise of an employer. Id. at 477.

53. Id. at 476.

54. 617 F.2d 636 (D.C. Cir. 1979).

55. 29 C.F.R. § 1910.1043 (1979). Exposure to cotton dust can cause serious health hazards, the best known and most serious being “brown lung” disease or byssinosis. Cotton dust is not classified as a carcinogen.
serious threat to the health of workers." The court did not fault the Agency for formulating a regulation from a rulemaking record riddled with scientific gaps and controversy. Rather, the court affirmed OSHA's overriding obligation to protect workers from occupational hazards and material health impairment.

In *American Iron and Steel Institute v. OSHA*, the Third Circuit upheld OSHA's coke-oven emissions regulation. Finding substantial evidence that coke-oven emissions are carcinogenic at any level of exposure, the court concluded that the decision to establish a 0.15 mg/m³ exposure level "was a policy judgment on the basis of the best available evidence as to what industry could achieve in an effort to best protect its coke-oven employees." Furthermore, the court stated that because a policy choice is a legislative decision in the exercise of congressionally delegated powers, it need not be supported by substantial evidence in the record. Thus, the Third Circuit narrowed the application of the substantial evidence standard solely to determinations of factual issues that can be proven by the record.

It is with this background that the Supreme Court faced the issues presented in *Marshall v. American Petroleum Institute*. The Supreme Court rejected this past judicial analysis characterized by deference to OSHA's expertise. Instead, the Court fashioned a new analysis which places an increased burden upon OSHA in sustaining a regulation governing the use of toxic and hazardous substances in the workplace.


OSHA's obligation to protect American workers despite deficiencies in research or methodology was also affirmed in Society of the Plastics Indus., Inc. v. OSHA, 509 F.2d 1301 (2d Cir. 1975), cert. denied, 421 U.S. 992 (1975), where the court upheld OSHA's vinyl chloride exposure standard, 29 C.F.R. § 1910.1017 (1979). Vinyl chloride is an acknowledged carcinogen which is widely used in the plastics industry. Noting 13 known deaths in the record, the court reminded industry that "... we are dealing here with human lives." 509 F.2d at 1309, 1317.

58. 577 F.2d 825 (3rd Cir. 1978), cert. granted, _ U.S. _ (1980).
60. Among other requirements, the OSHA standard required that toxic emissions not exceed 0.15 mg. of the benzene soluble fraction of total particulate matter per cubic meter of air present during the production of coke averaged over an eight hour day. Am. Iron and Steel Inst. v. OSHA, 577 F.2d 825, 827 (3rd Cir. 1978), cert. granted, _ U.S. _ (1980).
61. Id. at 833.
62. Id.
63. 48 U.S.L.W. 5022 (1980).

Factual Background

Benzene has been recognized as a toxic substance since 1900, and has a long history of regulation. Since 1946, the American Conference of Governmental Industrial Hygienists has reduced benzene exposure limits from 100 ppm, to 50 ppm in 1947, 35 ppm in 1948, 25 ppm in 1963, and 10 ppm in 1974. These limits were based on scientific evidence which linked benzene to serious blood disorders. In 1969 the American National Standards Institute, recognizing that benzene presents a serious health hazard to employees, adopted a national consensus standard of 10 ppm averaged over an eight hour day. This standard was formally adopted by OSHA in 1971. OSHA's adoption of the standard was based on a finding that benzene had a non-malignant toxic effect rather than any possible link to leukemia.

In 1977, however, as a result of new studies confirming the high incidence of leukemia at high exposure levels and several recommendations from the National Institute for Occupational Safety and Health (NIOSH), OSHA issued an emergency temporary

66. Id.
67. Section 3(9) of the Act, 29 U.S.C. § 652(9) (1976), defines a "national consensus standard" as one "promulgated by a nationally recognized standards producing organization . . . ."

In 1971, the Secretary adopted a large number of private consensus standards promulgated by the American National Standards Institute (ANSI), an organization that has served as a clearinghouse for the development of voluntary standards by agreement among maker, seller, and user groups. ANSI is one of two private organizations which formulate national consensus standards for commerce and industry. The other is the National Fire Protection Association. The drafters of OSHA contemplated that the standards of these two organizations would provide the vehicle for the Secretary's adoption of standards under § 6(a), 29 U.S.C. § 655(a) (1976). See S. REP. No. 1282, 91st Cong., 2d Sess. 6, reprinted in [1970] U.S. CODE CONG. & AD. NEWS, 5177, 5182.
69. Under the authority of 29 U.S.C. § 655(a) (1976), this standard was adopted without rulemaking. Section 655(a) directs the Secretary, within 2 years after the effective date of the Act and without rulemaking, to promulgate as an occupational safety or health standard any national consensus standard that he determined would result in improved safety or health for employees. The purpose of this power was to make the Act effective immediately. On April 28, 1973, this power expired. Id.
71. Between 1974 and 1976, a number of studies were published tending to confirm that benzene can cause leukemia when exposure levels are high. Marshall v. Am. Petroleum Inst., 48 U.S.L.W. 5022, 5025 n.12 (1980).
72. The Act created the National Institute for Occupational Safety and Health (NIOSH)
standard reducing the benzene exposure limit from 10 ppm to 1 ppm. This temporary standard met with fervent opposition from industry. When it was challenged in the Fifth Circuit, the court issued a temporary restraining order preventing the standard from taking effect.

Subsequently, OSHA issued a proposal for a permanent standard very similar to the restrained temporary standard. The permanent standard also restricted skin contact with liquid benzene and imposed labeling, exposure monitoring, and medical surveillance requirements. After public hearings were held and a rulemaking record established, the final standard was issued, requiring industry to keep benzene exposure levels at or below 1 ppm.

The American Petroleum Institute, on behalf of producers and users of benzene and products containing benzene, challenged the standard, alleging that OSHA failed to show that the reduced exposure level was "reasonably necessary" to provide a safe workplace. The Institute argued that under the "reasonably necessary" language of section 3(8), OSHA was required to assess the expected benefits of a regulation as compared to the anticipated costs of compliance. OSHA, the Institute asserted, merely assumed that the benefits from the regulation may be appreciable. Therefore, the Institute argued, the Agency's regulation was not supported by substantial evidence.

The Fifth Circuit's Decision

The Fifth Circuit invalidated OSHA's 1 ppm standard. In so doing, the court parted with the pattern of judicial deference to OSHA hazardous substance regulation. This decision differed from...
the pre-Marshall decisions in three significant ways. First, the court shed new light upon the "reasonable necessary" language of section 3(8). Previously, no circuit court had construed this language as placing substantive limits on OSHA's authority. The Fifth Circuit, however, interpreted the "reasonably necessary" language to require a showing that: (1) a hazard exists in the working environment; (2) the standard will reduce the risk of the hazard, i.e. that measurable benefits will result; and (3) the expected benefits bear a reasonable relationship to the expected costs.

82. Id. at 502-03. The American Petroleum court's construction of the "reasonably necessary" language of the OSHA statute was largely dependent on its earlier interpretation of the same language in an entirely different statutory scheme, the Consumer Product Safety Act (CPSA), 15 U.S.C. § 2051 et seq. In Aqua Slide 'N' Dive Corp. v. Consumer Product Safety Commission, 569 F.2d 831, 844 (5th Cir. 1978), the Fifth Circuit construed the "reasonably necessary" language of that statute. The language appears in the section dealing with the Consumer Product Safety Commission's process of setting standards. That statutory section requires specific findings that the Commission's rules are "reasonably necessary to eliminate or reduce an unreasonable risk of injury." Am. Petroleum Inst. v. OSHA, 581 F.2d 493, 502 (5th Cir. 1978), quoting 15 U.S.C. § 2058 (c)(2)(A). The American Petroleum court found that OSHA's purpose of protecting workers from dangerous employment conditions is parallel to CPSA's purpose of protecting consumers from dangerous products and reasoned that their precisely similar requirements cannot be construed to mean different things. The Fifth Circuit's statutory construction limits OSHA's regulatory power to demonstrated, quantified, and unreasonable risks and requires a cost-benefit analysis of the regulated risks. Am. Petroleum Inst. v. OSHA, 581 F.2d 493, 502-503 (5th Cir. 1978).

OSHA has taken a broad interpretation of its feasibility constraint. In American Petroleum, OSHA argued that Congress imposed no substantive limits on its decisionmaking power in the § 652(b)(8) definition, and that it is § 655(b)(5) which defines when conditions imposed by a standard dealing with toxic materials are reasonably necessary. According to OSHA, the requirement to assure "that no employee will suffer material impairment of health" overcomes any cost requirements. 581 F.2d at 501-02.

The Fifth Circuit viewed feasibility as ultimately dependent on the reasonable relationship between the benefits and the costs because only when that relationship is reasonable can a standard be said to be "reasonably necessary" under the Act. Id. at 503. It appears the court assumed that the linquistic differences in the stated purposes of the two statutes are immaterial; that OSHA's positively framed mandate to "assure so far as possible . . . safe and healthful working conditions" is qualitatively equivalent to the CPSC's mandate to protect consumers from dangerous products.

The court's analogy to the Aqua Slide decision has been criticized as unpersuasive and inappropriate by the D.C. Circuit in AFL-CIO v. Marshall, 617 F.2d 636, 665 n.169 (D.C. Cir. 1979), cert. granted, ___ U.S. ___ (1980). For a detailed examination of the cost-benefit analysis issue, and a persuasive argument that Aqua Slide was misapplied by the court, see DeSanti, Cost Benefit Analysis for Standards Regulating Toxic Substances Under the Occupational Safety & Health Act, 60 B.U.L.R. 114, 129-30 (1980).

83. Am. Petroleum Inst. v. OSHA, 581 F.2d 493, 502-03 (5th Cir. 1978). The court emphasized two important features of its holding: (1) OSHA failed to show and factually assess the benefits which would result from the standard, and (2) the expected benefits must bear a reasonable relationship to the costs of compliance, which in this case was estimated to be one-half billion dollars. Id.
Second, the court substantially narrowed OSHA’s policymaking authority by requiring that OSHA regulate on a rulemaking record based upon greater knowledge and fewer assumptions. The practical result is a heavier evidentiary burden on the Agency because a regulation controlling toxic substances must now be supported by more statistical and scientific certainty before the Agency can promulgate a new standard. Thus, the “frontiers of science” and “best available evidence” analyses developed by previous circuit courts have been greatly narrowed by the Fifth Circuit. The third departure from pre-Marshall decisions, and one closely related to the second, is the Fifth Circuit’s insistence that both policy and factual determinations made by the Agency must be carefully scrutinized under a substantial evidence test.

What the Court intended to accomplish through its new analysis is difficult to ascertain. Perhaps the court sought to deprive OSHA of any authority to make legislative judgment calls based on policy, thereby confining OSHA’s congressional mandate to regulatory choices supported by conclusive factual findings. This reading of the opinion certainly curtails OSHA’s ability to regulate the use of toxic substances in the working environment. In affirming the Fifth Circuit’s decision, the Supreme Court appears to have arrived at the same conclusion.

The Supreme Court’s Opinion

The Parties Arguments

Industry representatives offered a two-prong argument in urging affirmation of the court of appeals decision. The first prong was predicated on a reading of section 3(8). That section, argued the industry, has separate legal significance and requires a showing that the benzene standard was “reasonably necessary” to provide safe and healthful employment. According to the industry, OSHA

84. Id. at 505.
85. See notes 50-53 supra and accompanying text.
86. 29 U.S.C. § 655(b)(5) (1976). The best available evidence in an area of changing technology and incomplete scientific data may leave gaps in knowledge that require policy judgment in formulating the health and safety standard. See notes 54-57 supra and accompanying text.
failed to make the required showing.  

The second prong of the industry's attack was an alternative argument that under section 6(b)(5) OSHA does not have the authority to create risk-free workplaces regardless of cost. Rather, prior to adopting a standard, OSHA must conduct a cost-benefit analysis to determine whether or not the benefits of a regulation are commensurate with the costs. The industry maintained that no such analysis was undertaken by OSHA in its formulation of the benzene standard.

OSHA advanced a contrary position. In its view, section 3(8) has no substantive significance. It imposes no substantive limits on the Agency's power, but allows the Agency to do whatever is "reasonably necessary" to eliminate all risks of harm from a workplace. As long as the standard is not totally irrational, it satisfies the language of section 3(8). OSHA further contended that section 6(b)(5) is controlling, and "requires OSHA to promulgate a standard that either gives absolute assurance of safety for each and every worker or that reduces exposures to the lowest level feasible." OSHA's view of the feasibility requirement of section 6(b)(5) is that which is technologically achievable at a cost which does not destroy the industry. Confronted with these disparate positions, the Supreme Court undertook the task of deciding whether to uphold or strike down OSHA's revised benzene standard.

93. OSHA's rationale, as characterized by the Court, is a series of assumptions consisting of five main positions: (1) Benzene is a human carcinogen. (2) The burden of proof is on industry to show a safe threshold level of exposure. (3) The Agency's standard policy with respect to carcinogens is that in the absence of clear evidence to the contrary, it is assumed that no safe level exists, and therefore, any level of exposure above zero presents some increased risk of cancer. (4) Where no safe level is established, § 6(b)(5) requires OSHA to select the lowest feasible level, and 1 ppm is workable because it is technologically feasible and its cost impact will not threaten the welfare of the firms. (5) Some benefits are likely to result from the reduced level because risk of leukemia must be assumed to decrease as exposure levels decrease, although it is not possible currently to construct a scientifically and medically accurate dose and response curve, i.e. to plot levels of risk at various low levels of exposure over a long time frame. Marshall v. Am. Petroleum Inst., 48 U.S.L.W. 5029-30 (1980).
94. Id. at 5030.
95. Id.
96. Id.
The Supreme Court's Holding

Unlike the circuit courts which had previously reviewed OSHA toxic substance regulations, the Supreme Court refused to adopt the "substantial evidence" standard of judicial review. Instead, the Court adopted a more stringent, less deferential analysis in reviewing OSHA action.

The Court posited that section 3(8) "does apply to all permanent standards promulgated under the Act and that it requires the Secretary, before issuing any standard, to determine that it is reasonably necessary and appropriate to remedy a significant risk of material health impairment." The Court thus agreed with industry that section 3(8) does have substantive legal content. Furthermore, the Court stated that only after this "threshold determination" is made would it be necessary to review the second argument: "[whether, as OSHA contends,] section 6(b)(5) requires [the Secretary] to select the most protective standard he can consistent with economic and technological feasibility, or whether, as [industry argues], the benefits of the regulation must be commensurate with the costs of its implementation." Finding that the Secretary had failed to meet the section 3(8) threshold determination of reasonable necessity the Court concluded that it had no occasion to decide the section 6(b)(5) issue.

In holding that OSHA must satisfy the threshold test, the Court reasoned that the Act empowers the Agency to issue standards to provide safe and healthful employment, thereby implying that OSHA must make a preliminary finding that a workplace is not safe. The Court further stated that "safe" does not mean risk-free, thus suggesting that a place or activity can pose some risks but still be considered "safe." The Court concluded that "a workplace can hardly be considered ‘unsafe’ unless it threatens the

99. Id.
100. Id.
101. Id.
102. Id. at 5031.
103. Id.
workers with a significant risk of harm.” 104 Thus, prior to the promulgation of any permanent standard, the Secretary must make a determination that the workplace presents a significant risk of detriment to the employee, and that the application of a permanent standard will eliminate or lessen this risk. 105 According to the Court, the Secretary did not meet this requirement in the case before it.

The Court characterized OSHA’s 184 page rulemaking record as “sketchy at best” 106 because it failed to support the conclusion that benzene presented a significant risk of harm to employees at the 10 ppm exposure level. OSHA did not quantify the risks of nonmalignant blood disorders at the 10 ppm level and, did not demonstrate how such disorders justified the regulation. Furthermore, the Court pointed out OSHA’s failure to take a definitive position as to what chromosomal aberrations meant in terms of demonstrable health effects. 107 Finally, the Court emphasized that OSHA had produced no evidence that exposure to benzene at the current 10 ppm level had ever caused leukemia. 108 Although one study of 549 workers uncovered 3 leukemia deaths where worker exposure to benzene was 2-9 ppm, the Court dismissed this study as questionable because no leukemia deaths were uncovered among workers exposed to higher benzene levels and because the three workers’ exposure to other carcinogenic chemicals could not be ruled out. 109 On these factors, the Court concluded that the Agency failed to show that benzene exposure at 10 ppm constituted a significant risk of material health impairment to an employee.

104. Id.
105. Id.
106. Id. at 5028. The Court claimed that much of the 184 page explanation of the standard was devoted to the adverse effects of benzene exposure to benzene at levels of concentration well above 10 ppm, and therefore does not provide direct support for the Agency’s conclusion that the limit should be reduced from 10 ppm to 1 ppm. Id.

OSHA maintained that the lack of data regarding blood abnormalities made it impossible to construct an accurate dose-response curve. Id. at 5029 n.38. In a footnote, the Court suggested that OSHA at least should have discussed the possibility of a rough estimate or extrapolation to derive risk estimates for low level exposures. Id. at 5028 n.33. Later, in the text, the Court faulted the Agency for rejecting industry testimony that a dose-response curve can be formulated. Id. at 5034.

107. Id. at 5028-29.
108. Id. at 5029.
109. Id.
The Supreme Court's adoption of the "significant risk" standard of section 3(8) seriously impinges OSHA's ability to control the use of toxic substances in the workplace. The Court introduced a new analysis which deviates considerably from the "substantial evidence" standard of review applied in the pre-Marshall decisions.\textsuperscript{110} Although the Court's threshold requirement, which necessitates a finding of a "significant risk," is based upon statutory construction,\textsuperscript{111} the plurality opinion offers neither persuasive reasoning nor substantive support for its holding. Rather, the Court merely announces what it perceives to be the intent of the statute.\textsuperscript{112} Unfortunately, such perception smacks of statutory fabrication rather than true statutory interpretation.

The dissenting opinion in Marshall vigorously maintained that both the statutory language and the legislative history of the Act point to the conclusion that section 3(8) offers no substantive limitations on OSHA's rulemaking ability.\textsuperscript{113} According to the dissent, the limits on OSHA's power are found in section 6(b)(5) and in the courts' application of the "substantial evidence" test.\textsuperscript{114} The dissent, therefore, concluded that the Court exceeded its proper judicial authority and has changed the meaning and purpose of section 3(8).\textsuperscript{115}

Predicating its analysis on statutory interpretation, the dissent argued that at no time has section 3(8) imposed substantive limitations on the regulatory power of OSHA.\textsuperscript{116} The dissent also focused

\textsuperscript{110} The Court's opinion, unlike the pre-Marshall circuit court decisions, neither addresses nor defines its scope of judicial review. The Supreme Court's holding essentially adopts industry's first prong argument which superimposes the substantive requirement of significant health risk on the section 3(8) OSHA standard definition.

\textsuperscript{111} Id. at 5030. The Court posited that the meaning of and relationship between § 3(8) and § 6(b)(5) are determinative and provide the statutory criteria for its holding. The Court did not, however, identify what it believed the plain meaning of these statutory sections might be, nor where the ambiguity justifying statutory construction arose.

\textsuperscript{112} The Court rejected OSHA's reading of the two sections, stating such reading would be appropriate only if OSHA's purpose were to eliminate all risks. The Act, however, does not require "absolutely risk free workplaces." Id. at 5031.

\textsuperscript{113} Id. at 5044: "Nothing in the statute's language or legislative history, however, indicates that the 'reasonably necessary . . . language should be given this meaning.' The plurality, on the other hand, found that it is the requisite significant risk finding held implicit in § 3(8) which empowers OSHA to regulate hazardous substances. Id. at 5031.

\textsuperscript{114} Id. at 5045.

\textsuperscript{115} Id. at 5049.

\textsuperscript{116} Id. The dissent pointed out that the definitional clause of § 3(8) received no legisla-
on the legislative history and purpose of section 6(b)(5), observing that this section was enacted to meet the special concerns arising from the use of toxic and hazardous substances in the workplace. Among these concerns are employee exposure to substances that become dangerous only after frequent and prolonged exposure, the scientific uncertainty surrounding the use of many toxic substances, and the increasing use of carcinogens in a chemically prolific society. These concerns dictate that OSHA have broad authority under section 6(b)(5). The plurality's holding, however, undermines these articulated legislative concerns. In addition, the dissent argued that the plurality's imposition of a new "significant risk" requirement nullifies the legislative policy pertaining to health regulation contained in section 6(b)(5). If Congress had meant to saddle OSHA with this evidentiary burden, it would have done so. Asserting that the decision substitutes judicial judgments for congressional ones, the dissent concluded that policy judgments cannot be tolerated in the courtroom.

A Barrier to Policy-Making

The "threshold test" developed by the Supreme Court deviates significantly from the "substantial evidence" standard of judicial review by more closely scrutinizing the conditions existing prior to the promulgation of the OSHA regulation. Pursuant to the threshold test, the rulemaking record of OSHA must affirmatively support a finding of "significant risk" in the workplace. The substantial evidence standard, on the other hand, was characterized by greater judicial deference to OSHA regulation. Although OSHA's

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117. Id. at 5044.
118. Id. See also H.R. No. 1291, 91st Cong., 2d Sess., 28 (1970).
119. Marshall v. Am. Petroleum Inst., 48 U.S.L.W. 5030, 5045 (1980). The provision requiring the Secretary to "act on the basis of the 'best available evidence' was intended to ensure that the standard setting process would not destroyed by the uncertainty of scientific views." Id.
120. Id. at 5044.
121. "The plurality's interpretation renders utterly superfluous the first sentence of § 655(b)(5) which . . . requires the Secretary to set the standard 'which most adequately assures . . . that no employee will suffer material impairment of health.' Indeed, the plurality's interpretation reads the sentence out of the Act." Id. at 5049.
122. Id. at 5053.
actions were subjected to a "hard look" under the pre-Marshall standard, validity was presumed as long as such actions were adequately supported by the rulemaking record. Furthermore, through the application of the substantial evidence test, the circuit courts have upheld OSHA regulations based on policy determinations. The threshold test, however, leaves little room for regulations based on policy judgments. Under the Marshall test, a court may easily find that an inconclusive or scientifically controversial record does not support the presence of a significant risk. As a result, OSHA regulations promulgated on the "frontiers of science" will not withstand scrutiny.

The Supreme Court's threshold requirement will be particularly difficult to overcome in carcinogen regulation. For example, in regard to the toxic substance benzene, hard scientific evidence concerning the long term effects of low-level exposure is either unavailable or controversial. OSHA cannot say with any degree of certainty that benzene at 10 ppm produces a "significant risk" to the worker. Yet, no proof exists that benzene does not present a significant risk at this exposure level. In adopting its threshold requirement, the Supreme Court precludes OSHA from taking action as a matter of legislative policy. OSHA can no longer advance overprotective regulation at industry's expense. Instead, the Supreme Court mandates underprotective regulation at the expense of the American worker.

A Demand for Risk Quantification

Another shortcoming of the Supreme Court's opinion in Marshall is its lack of instruction for future toxic substance regulation. Nowhere in the opinion does the Court define what it means by "significant risk." Apparently, the Court assumes the language conveys a level of risk that makes a workplace "unsafe" enough to warrant regulation. Citing the coke-oven emissions risk assessment as illustrative of how OSHA can properly demonstrate the risks and benefits of regulating carcinogen exposure, the Court reveals

124. See notes 49-62 supra and accompanying text.
125. The Court, however, stated that the "significant risk" burden of proof is not a "mathematical straitjacket" but is ultimately defined and determined by the Agency. Id. at 5034.
126. Id. at 5035 n.64.
its preference, even demand, for risk quantification.\textsuperscript{127} Unfortunately, unlike the coke-oven emissions hazard, not all chemical exposure hazards lend themselves easily to certain and defensible numbers. The Court did not face the dilemma of inconclusive, although reputable, scientific findings, and paid only lip service to the policy basis of some risk determinations. In rejecting OSHA’s policy-dominated benzene standard, the Court has also indirectly rejected the Agency’s carcinogen policy articulated by the Secretary as the policy determination which underlies the reduced benzene exposure level.\textsuperscript{128}

The opinion does provide insight into the Court’s underlying concerns, namely OSHA’s “unprecedented power over American industry” and the potentially enormous compliance costs imposed on industry.\textsuperscript{128} Given the thousands of suspect carcinogens in existence, the Court fears a carcinogen policy which would permit pervasive regulation with few measurable benefits. The Court’s fear, however, is misdirected. Rather than focusing on compliance cost burdens, Congress focused on the staggering economic impact of industrial disabilities and deaths.\textsuperscript{130} The express goal of Congress in enacting OSHA was to compel industrial investment in the health of American workers.

\textbf{CONCLUSION}

By preventing OSHA from regulating risks it cannot first statis-

\textsuperscript{127} The dissent, however, recognized “encouraging signs” that the Secretary is not totally foreclosed from action where risk quantification simply cannot be undertaken. \textit{Id.} at 5050.

\textsuperscript{128} OSHA’s proposed generic cancer policy was promulgated October 4, 1977. 42 Fed. Reg. 54,148 (1977). OSHA adopted this formal policy for regulating carcinogens, effective April 21, 1980. 45 Fed. Reg. 5002 (1980). Justice Powell, in his partially concurring opinion, observed in a footnote that the policy was not in effect when the Agency issued the benzene regulation. He further noted that no properly supported Agency policy was before the Court in this case. Marshall v. Am. Petroleum Inst., 48 U.S.L.W. 5022, 5037 n.3 (1980). The plurality also made a footnote reference to the generic cancer policy after its statement regarding OSHA’s potential power to impose enormous costs with few attendant benefits. \textit{Id.} at 5032 n.51.

This cancer standard is now being challenged in the Fifth Circuit Court of Appeals. American Petroleum Inst. v. OSHA, No. 80-3018. OSHA asked the circuit court to stay proceedings until certain revisions are made to conform its standard to the Supreme Court’s benzene decision. \textit{See} 10 OCCUPATIONAL SAFETY AND HEALTH REPORTER (BNA) 795 (1980).

\textsuperscript{129} \textit{Id.} at 5032. Although the Court does not expressly address the issue of cost-benefit analysis, it articulates the cost-benefit considerations in the very language it uses and in its frequent references to enormous costs and small benefits.

tically characterize as “significant,” the Supreme Court sharply curtails OSHA’s rulemaking power. The Marshall decision thus writes out of the statute and legislative history a realm of risks Congress intended OSHA to regulate. Through adoption of its threshold test, the Court establishes a new model of intrusive and stringent judicial review of agency health regulation. The “significant risk” requirement precludes OSHA from regulating on predictive or precautionary policy grounds since OSHA can regulate only after hazards are recognized and, to some extent, quantified.

OSHA’s rulemaking efforts are especially hampered in areas of scientific uncertainty, most notably the regulation of carcinogens. OSHA has taken the policy position that no “safe” human exposure level can be determined for carcinogens. The Marshall decision suggests future regulation based on OSHA’s controversial carcinogen policy, which has now been formally promulgated as a regulation, will be invalidated when challenged in the courts.

The Court’s splintered opinion in Marshall is also disturbing because it demonstrates how easily the Supreme Court can, without agreement on such basic issues as the determination of acceptable risks, redefine the regulatory scope and power of an administrative agency whose rulemaking authority is grounded on protectionist policy judgments. The decision to invalidate the tough benzene standard, while an apparent victory for industry in its express endorsement of risk analysis, provides little direction for OSHA in fulfilling its objective of ensuring workers’ safety and health. The Supreme Court must now assist OSHA in determining how much it may ask industry to spend in the future for the protection of the American worker.

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