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THE STATUS OF OSHA REFORM: A COMMENT ON MENDELOFF'S PROPOSALS*

W. Kip Viscusi

Abstract *Since its inception, the Occupational Safety and Health Administration (OSHA) has been the target of regulatory reform proposals. OSHA has attracted this continued critical attention both because of inadequacies in the design of OSHA regulation and shortcomings in its implementation. John Mendeloff's critique and program of reform for OSHA focus primarily on inadequacies in the structure of OSHA policy rather than its implementation. Within that class of issues, Mendeloff provides a thoughtful analysis of OSHA policy. His regulatory proposals also address what appear to be the principal shortcomings of OSHA. However, the specific aspects of his proposal raise new problems with respect to the stability of regulatory policy and its unintended role in establishing barriers to entry in industry.*

THE PROBLEM WITH OSHA The existence of inadequacies in OSHA's general regulatory approach has been given widespread publicity since the early 1970s, when OSHA was the target of a barrage of adverse publicity, usually in the form of anecdotes about ill-conceived standards. Since OSHA's inception, most of these standards have remained unchanged, except that some of the most extraneous and irrelevant standards were eliminated by the Carter administration. The few new regulations issued by OSHA have focused increasingly on health risks, but the overall pace of new regulation has been slow. Mendeloff diagnoses the problem at OSHA as being twofold—overregulation of the risks that are subjected to regulation, and underregulation of many health risks that are not covered at all by OSHA standards. As a broad characterization, each of these assessments appears correct.

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The overregulation problem stems from OSHA's excessive attention to the risk reduction aspects of its policies. Because OSHA does not place sufficient emphasis on the costs of policies when setting the level of its standards, the cost-effectiveness of OSHA standards is often quite low. For example, the cost per year of each byssinosis prevented is on the order of \$100,000 or more.¹ There are exceptions, such as the very cost-effective asbestos regulation, which may not be sufficiently stringent, but as a general rule the standard is set at the lowest risk level for which compliance is affordable. Whether the risk reduction benefits merit this additional cost imposition is not an explicit matter of concern.

Even viewed more narrowly from the standpoint of effective risk reduction, OSHA has sometimes overregulated. The OSHA benzene standard, for example, was overturned by the U.S. Supreme Court because OSHA had failed to show that it would lead to a "significant" reduction in risk.²

In addition to the overregulation problem, there is a related difficulty not cited by Mendeloff—the inappropriate mode of regulation. OSHA's standards are not performance-oriented requirements to achieve particular levels of safety, but rather are detailed specifications of either the workplace design (e.g., handrail width) or the work environment (e.g., airborne concentration of respirable cotton dust). These narrowly drawn regulations stemmed in large part from OSHA's adoption of voluntary industry guidelines as mandatory standards. The difficulty is that a particular safety technology that is effective in one situation may not be the most appropriate mechanism for promoting safety in other contexts.

The specification standard character of OSHA's regulations was the target of a major interagency effort headed by Paul MacAvoy under the Ford Administration, but the model performance standard that the task force proposed was not adopted.³ As a result, the OSHA standards are so narrowly drawn that they are only pertinent to 15 percent of all machines.⁴

The choice of the regulatory mode arises in the health area as well with respect to whether protective equipment can be used in lieu of engineering controls. Although Mendeloff does not support protective equipment options except on a temporary basis, the major shortcoming of relying on protective devices may not be a lack of efficacy but rather worker opposition to the discomfort involved. It is in this area where bargaining solutions to compensate affected workers may be most useful.

The third major deficiency of OSHA pertains to its comparative neglect of health standards. The underregulation of health risks cited by Mendeloff is all the more marked because of the comparatively greater need for regulating health than safety hazards, which are more likely to be subject to market failure. Standard economic mechanisms, such as compensating wage differentials, will be less effective in generating efficient risk levels for dimly understood health hazards than for readily monitorable safety risks. Despite the stronger economic rationale for health hazard regulation, OSHA's efforts have focused predominantly on safety

risks, in part because these dominated the consensus industry standards adopted initially by OSHA.

Subsequent rulemaking efforts have increased the emphasis on health, but these efforts have been stymied in part by the controversies generated by OSHA's excessively stringent approach to regulation. As I have noted with respect to the late 1970s, all OSHA rulemaking was brought to a standstill during the second half of the Carter Administration as OSHA awaited the outcome of the benzene and cotton dust court cases.⁵ These court challenges, as well as subsequent, prolonged administrative battles with the Office of Management and Budget could have been avoided by setting less stringent standards. As Mendeloff observes, OSHA could be more effective in promoting worker health by having a broader scope of regulation coupled with less stringency for any particular regulation.

The existence of greater relative market inadequacies in dealing with health risks does not imply, however, that all health risks are subject to market failure and potentially merit regulation. Workers in the chemical industry, for example, perceive many of the risks they face and receive additional wage premiums for these hazards. The newly introduced OSHA chemical labeling regulations should greatly enhance the role of the market in this area. A missing ingredient in Mendeloff's analysis was any discussion of the dominant role that will be played by market forces in promoting health and safety and the need to target OSHA regulations where there are demonstrable inadequacies in the operations of the market.

The fourth class of deficiencies pertains to the weak and ineffective enforcement of OSHA standards. Although such operational issues were not included in Mendeloff's critique, which was oriented to standards design issues, it is the enforcement effort that has received the greatest attention from recent OSHA administrators. The reason for this emphasis is that, unlike regulatory standards, the components of the enforcement policy can be altered fairly easily by the OSHA administrator.

The shortcomings of the enforcement program include its small scale relative to the number of covered workers, leading to total annual penalties of \$6 million and an annual probability of an OSHA inspection at a firm that is smaller than that of the probability of the passage of Halley's Comet. The targeting of these efforts has improved since the late 1970s, as OSHA now focuses more on firms where violations are likely to be found, but more could be done in this regard. In addition, the proportion of health-related inspections, which rose from .04 in FY 1973 to .19 in FY 1981, and has since dropped to .15, appears to be an inadequate response to the fundamental workplace risks meriting government regulation.

PROGRAM OF REFORM Mendeloff's plan to reform OSHA consists of three amendments to OSHA's enabling legislation. In particular, Congress would (1) incorporate some benefit-cost trade-off into OSHA's legislation, (2) calibrate the standards of review for new regulation to the strict-

ness of the proposal, and (3) adopt all new standards and revised standards suggested by the American Conference of Governmental Industrial Hygienists (ACGIH) as OSHA health regulations.

First, in terms of feasibility it is likely that any legislative reform effort, however attractive, will have to be part of a long-term reform strategy. The Occupational Safety and Health Act has never been amended, and similar efforts to revise the Clean Air Act have met with substantial resistance. Although some legislative reform is desirable, it should be coupled with reform efforts more under the control of the OSHA administrator. For example, OSHA inspections could be targeted more toward health risks, and new OSHA standards could reflect a greater balancing of competing concerns, while perhaps falling short of a formal benefit-cost test. In addition, the pace of new rulemaking with respect to health risks could be accelerated administratively.

Of the components of Mendeloff's legislative reform package, the most attractive is the introduction of a greater concern with both the benefits and costs of OSHA policies so that some kind of recognition of these competing concerns will be part of its legislative mandate. Legislative changes of this type will have no effect on regulations already issued unless OSHA chooses to reassess them. Although such a reassessment seems desirable, it is unlikely to occur on a major scale because companies now in compliance have a vested interest in continuing the regulation. As a result, it is the future structure of OSHA policy that will be most amenable to such influences.

Mendeloff's second legislative proposal is to calibrate the strictness of the criteria applied to regulations to the stringency of the proposal "in some way." What criterion is to be used is unclear. Is it the total cost imposed, the cost per worker affected, the cost per illness prevented, or the level of exposure? If regulations are viewed as being permanent, the objective should be to equate the cost per adverse health impact prevented across policies irrespective of whether the scale of the regulation is ambitious or modest.

If regulations are subject to change over time, some differences in the review standards might be desirable. For example, if it will be inexpensive for firms to alter their health and safety investments in response to changing OSHA standards, one will be less concerned with obtaining detailed reviews than if there are substantial, irreversible commitments to a particular technology. Other pertinent factors include the probability that new scientific evidence may become available and lead to a desired change in the standards.⁶

The third, and most important, component of Mendeloff's proposal is his suggestion that OSHA adopt the 200 new health exposure standards suggested as voluntary guidelines by the ACGIH as well as its 100 revisions of exposure limits for substances now covered by OSHA regulation. OSHA's original standards included roughly 400 ACGIH exposure limits, but since that time ACGIH has been much more active in setting its voluntary standards than OSHA has been with respect to mandatory standards. OSHA can-

not now adopt these new guidelines without first going through the rulemaking process, whereby it must show that compliance is "feasible" and the standard addresses a "significant risk." Mendeloff's legislative solution is to eliminate these policy tests.

The ACGIH develops its guidelines on a fairly informal basis. Each year a committee of 15 individuals, principally industrial hygienists and toxicologists, meets to set the suggested threshold limit values. The underlying philosophy of this procedure is "based on the premise that, although all chemicals are toxic at some concentration experienced for a period of time, a concentration exists for all substances from which no injurious effect will result no matter how often the exposure is repeated."⁷ Whether or not such no-risk thresholds actually exist is unclear because the apparent thresholds may simply be a consequence of our inability to measure small risks. More generally, it seems to be inappropriate to base policy on the existence of a risk threshold rather than more fundamental concerns such as the magnitude of the risk, the number of workers exposed to the risk, and the costs of compliance.

It is not clear *a priori* whether the stringency of such standards will be too great or too little. The risk-based orientation suggests that the standards may be too stringent. Estimates developed by John F. Morrall and by Ivy Broder and Morrall (cited in Table 1 of Mendeloff) for the few recent cases of overlap between ACGIH and OSHA standards suggest, however, that the standard levels are reasonable. If OSHA has selected the few most desirable standards of the additional 200 new ACGIH standards for its regulations, as one would hope OSHA would do, then the standards it has not yet chosen to adopt will be less efficacious on average so that the overall stringency of the standards yet to be adopted may be quite different.

The potential for excessively stringent standards is also enhanced by the failure to ascertain that the standard is feasible on an industry-wide basis and by the nature of the standard setting process. The role of particular firms in suggesting the ACGIH standards may generate guidelines that create compliance problems for other firms in the industry.⁸ The ACGIH values reflect in part what is achievable in the "best case" situations. To adopt the ACGIH standards as mandatory guidelines would in effect enable DuPont to set many OSHA regulations.

Although Mendeloff believes that reliance on private organizations will "speed the regulatory process," experience in other regulatory contexts suggests a less benign role for such private industry groups.⁹ One possibility is that the firms that can influence these standards will do so in a manner that requires other firms to adopt their current technology. The firm will then use the standards to establish barriers to entry into the industry. A similar regulatory phenomenon is widespread in rate and entry contexts. It has also been evidenced both with respect to the American Textile Manufacturers Institute's recent lobbying on the OSHA cotton dust standard¹⁰ as well as the Bicycle Manufacturers Association of Ameri-

ca's attempt to use the consumer safety standard for bicycles to keep out imports from Taiwan.¹¹

To the extent that ACGIH bases its standards on current industry good practice, there is also the danger that the standard will not be sufficiently stringent. If market incentives to reduce health risks are inadequate, as would be the case if workers systematically underestimated the risk, then using market reference points will lead to standards that are too lenient.

It may be the case that ACGIH errs in both directions in setting its standards, depending on the particular circumstances. The suggested guidelines are the result of a consensus developed at a committee meeting at an annual convention rather than the result of a careful study of the costs and benefits of the regulation. It does not seem desirable for OSHA to, in effect, surrender its standard-setting authority to such a casual process.

Even if the ACGIH standards were the result of a careful assessment of the societal implications of a standard, it is unlikely that voluntary standards could be used as the pattern for mandatory government regulations. Because compliance with ACGIH standards is not required, private organizations can set suggested guidelines on a more speculative basis and can revise these guidelines quite frequently. OSHA does not have this leeway because shifts in its standards have far-reaching effects for firms' technological choices. Adopting all of the ACGIH revisions in standards originally issued by OSHA would lead to 200 new standards and changes in 100 standards. In some cases, ACGIH standards have changed multiple times since being issued—33 have changed twice and seven have changed 3 times.¹² Most of these changes have been in the direction of tightening, prompting some observers to hypothesize that once firms comply they oppose any loosening of the ACGIH guidelines.¹³ Not only do the rapid fluctuations in voluntary guidelines make them unsuitable within the context of a mandatory regulatory program, but the nature of the private interests that govern the evolution of voluntary standards makes them an inappropriate basis for public policy.

With these caveats in mind, it should be noted that the ACGIH standards are not without merit. Together with other sources of scientific information, OSHA could use such standards to establish its menu of substances to be examined for potential regulation. It will never, however, be desirable for an agency to set mandatory standards in the same manner as one would set voluntary guidelines. Similarly, Mendeloff's observation that the pace of OSHA standard setting and standards revisions lagged behind that of ACGIH is not in and of itself evidence that OSHA's efforts in the health area have been inadequate. An appropriately ambitious health standards program should always be much more stable than voluntary guidelines.

The overall thrust of Mendeloff's proposals for more activity in the health area and more balanced policies is correct. Although legislative reform is desirable, that is a long-run strategy. Much can be done in the short run without major structural changes. The

major deficiency continues to be an inadequacy in the leadership of OSHA.

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- NOTES**
1. See Viscusi, W. Kip, "Cotton Dust Regulation: An OSHA Success Story," *Journal of Policy Analysis and Management*, 4(3) (1985): 325-43.
 2. Industrial Union Dept., AFL-CIO v. American Petroleum Institute, 448 U.S. 607 (1980).
 3. See MacAvoy, Paul, ed., *OSHA Safety Regulation: Report of the Presidential Task Force* (Washington: American Enterprise Institute, 1977).
 4. *Ibid.*, the Preface by MacAvoy.
 5. See Chapter 2 of Viscusi, W. Kip, *Risk by Choice: Regulating Health and Safety in the Workplace* (Cambridge: Harvard University Press, 1983).
 6. For a detailed analysis of such factors, see Viscusi, W. Kip, "Regulating Uncertain Health Hazards When There Is Changing Risk Information," *Journal of Health Economics*, 3(3) (1984): 259-74.
 7. Stokinger, Herbert, "Modus Operandi of Threshold Limits Committee of ACGIH," *Ann. Am. Conf. of Ind. Hyg.*, 9 (1984): 133.
 8. Overall, roughly 25 percent of ACGIH standards are the result of explicit industry recommendations. See Stokinger, *op. cit.*, p. 137.
 9. For a discussion of such a capture theory, see Stigler, George J., "The Theory of Economic Regulation," *Bell Journal of Economics and Management Science*, 2 (1971): 3-21.
 10. See Viscusi, *op. cit.*
 11. See Cornell, Nina, Noll, Roger, and Weingast, Barry, "Safety Regulation," in H. Owen and C. Schultze (eds.), *Setting National Priorities: The Next Ten Years* (Washington: Brookings Institution, 1976).
 12. These statistics are drawn from Bailar, John C., Jackson, Judy, and Keeler, Emmett, "Changes in Voluntary Background and Mandatory Health and Safety Standards: A Statistical Study," Harvard School of Public Health (1982), which also provided much of the background information underlying my discussion of ACGIH.
 13. *Ibid.*, pp. 7 and 39.