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Sally K. Fairfax

Barbara T. Andrews

DEBATE WITHIN AND DEBATE WITHOUT: NEPA AND THE REDEFINITION OF THE "PRUDENT MAN" RULE

SALLY K. FAIRFAX* and BARBARA T. ANDREWS**

Public assessment of the bureaucracy is subject to an ebb and flow similar to that observed in necktie widths. During the New Deal era, public estimation of government agencies was quite positive. In the mid-1940s it was possible for Paul Appleby, a renowned and insightful student of public administration, to dedicate his major treatise on the subject to "Bill Bureaucrat."[1] Recently, the residuum of Watergate and the Vietnam War has fostered a less positive view of government, and "bureaucrat" has become a pejorative term. This concept of executive agencies has given rise to the assumption that reform must be forced on reluctant if not incompetent administrators. In the area of environmental policy, this idea has been fueled by judicial elaboration of the environmental impact statement (EIS) requirements of the National Environmental Policy Act (NEPA).[2] Since the 1971 Calvert Cliffs decision,[3] scholars and citizens alike have praised the EIS, and the NEPA process has become a dominant strategy of the environmental movement. The evolution of NEPA litigation as a major vehicle of administrative reform coincided with the antigovernment mood of the early 1970s and served, on balance, to pit the critics on the outside against the "untrustworthy" bureaucrats within.

Few observers would dispute that citizen-watchdog tactics have promoted agencies' awareness of environmental issues, prodded unreasonably resistant government officials, and contributed to improved protection of the environment. This concentration on forcing reform from outside the agencies may, however, unnecessarily restrict the efforts of the environmental movement. Uncomplicated advocacy provides strength for reformers; it may, however, weaken their cause by leading them to overlook the complex character of debate and decision making within agencies. Contrary to some reformers' beliefs, agencies are not monolithic or inflexible entities

*Assistant Professor, College of Natural Resources, University of California at Berkeley.
**Student, Stanford University School of Law.

1. P. APPLEBY, BIG DEMOCRACY (1945); *but see* Kaufman, *Administrative Decentralization and Political Power*, 29 PUB. AD. REV. 3 n. 1 (1969).

2. 42 U.S.C. § §4331-4347 (1970) [hereinafter cited as NEPA].

3. 449 F.2d 1109 (D.C. Cir. 1971).

that defensively advocate a point of view defined by vested interests, professional bias, or devotion to the status quo. Agencies are composed of individuals and groups which, while usually hierarchically arranged, are sensitive in varying degrees to political power within the ranks, pressures from outside constituent groups, disciplinary areas of expertise, and the merits of issues. Too often external reformers have overlooked this internal variegation, opting instead to engage in a polarized debate which simplifies the problems. The reformers thereby overlook a range of imaginative potential solutions.

This paper attempts to present a more complete picture of administrative decision making than that which has dominated discussions of environmental reform to date. It is based on a detailed examination of efforts by Department of the Interior officials to redirect the awarding of noncompetitive or "preference right" leases for coal and phosphate under the 1920 Mineral Leasing Act.[4]

Although there had been some long-standing efforts in the Office of the Solicitor within the Department to reconsider the test for granting preference-right leases, the debate escalated during the early 1970s when the Department found itself confronted with lease applications covering thousands of acres of federally owned land.[5] The Department was most concerned with lease applications for phosphate mining in Florida's Osceola National Forest and California's Los Padres National Forest which threatened, respectively, the Floridan aquifer and the Sespe sanctuary for the California condor.

In response to these concerns, the Solicitor's Office reexamined the Mineral Leasing Act mandate that the Secretary issue a lease to any preference-right applicant who was able to show discovery of a "valuable deposit" of phosphate[6] or "commercial quantities" of coal.[7] The legal staff was by no means unanimous in its interpretation of this language, and the debate grew increasingly complicated as it shifted from the legal forum to a Departmentwide donnybrook among advocates of administrative precedent, political acceptability, environmental protection, and economic analysis.

In the context of this wide-ranging and often heated discussion, NEPA played a role which was influential, if not dispositive. Its impact has been unfortunately overlooked in analysts' and tacticians' preoccupation with the EIS. Section 102(1) of NEPA was urged and

4. 30 U.S.C. §§181-287 (1970).

5. The Department was also engaged for much of the period under study in developing the Energy Minerals Activity Recommendation System (EMARS) program to regulate competitive bidding on leases; *see* PUB. LAND NEWS March 25, 1976, at 4-5.

6. 30 U.S.C. §201(b) (1970).

7. 30 U.S.C. §211(b) (1970).

ultimately rejected as a long-sought source of authority allowing the Secretary to deny preference-right leases on purely environmental grounds. More importantly, however, NEPA was crucial in providing an intellectual framework and substantive rallying point for the various reform proponents within the ongoing internal debate. NEPA crystallized and summarized concerns, goals, attitudes, and political forces which gave crucial weight to the arguments of the internal reformers. Finally, in 1976, after three years of intense discussion within the Department, the Secretary promulgated new regulations. The new reading of the 1920 statute relied on traditional precepts of statutory analysis, along with the priorities codified in NEPA, to effect a major shift in federal minerals policy through a new definition of valuable deposit and commercial quantities.[8]

A brief review of the action-forcing, external approach to administrative reform as contrasted with the internal model provides the context for the analysis of the commercial quantities debate. Following this discussion, an overview of federal policy under the 1872 Mining Law[9] and the 1920 Mineral Leasing Act is presented as background for understanding the details of the preference-right leasing issue. The paper then takes a closer look at Interior's efforts to redefine valuable deposit and commercial quantities during a period characterized as much by a notion of energy scarcity and resource constraints as by environmental awareness. This analysis constitutes the basis for suggesting a modified model for administrative reform in the context of complex resource decision-making issues.

DEBATE WITHIN VERSUS DEBATE WITHOUT: ADMINISTRATIVE REFORM AS TWO MODELS IN NEED OF A MERGER

An extensive body of literature praises NEPA for a variety of reasons.[10] These include the suggestion that NEPA has (1) forced the agencies to weigh environmental values in decision making and consider alternatives to proposed action, (2) enhanced public participation in agency deliberations and planning, and (3) expanded the citizen's standing to sue in the courts. Though some of this praise is perhaps warranted, it is also misguided in its assumption that environmental degradation is caused by administrative agencies that are

8. 43 C.F.R. §3520 (1977).

9. 30 U.S.C. §§521-531 (1970).

10. *See, e.g.*, S. ANDERSON, NEPA IN THE COURTS (1973); Hanks and Hanks, *An Environmental Bill of Rights: The Citizens Suit and the National Environmental Policy Act of 1969*, 24 RUTGERS L.R. 231 (1970); HILL, THE NATIONAL ENVIRONMENTAL POLICY ACT AND FEDERAL WATER RESOURCES PLANNING (1977); R. LIROFF, A NATIONAL POLICY FOR THE ENVIRONMENT: NEPA AND ITS AFTERMATH (1976).

unwilling and unable to protect environmental values. Law Professor Joseph Sax stated this premise succinctly in *Defending the Environment* where he wrote:

> It may sadden the observer to have to conclude that administrators have to be bludgeoned into doing their job under threat of judicial penalties or that private citizens should have to undertake the burden of effective initiatives. But facts are inexorable; they do not become less real because we dislike them.[11]

A comment on a recent Supreme Court construction of NEPA similarly concluded that the law and its action-forcing provisions are necessary "because of doubt that agencies will act on their own to make reforms. . . . And the first six years of NEPA experience . . . have amply demonstrated agencies' resistance to change, their lack of familiarity with environmental matters, and the fact that values as well as technical expertise are involved."[12]

The pervasive use of the term "action forcing" to describe the provisions of Section 102(2)(c) of NEPA exemplifies the distrust of administrative agencies among outside reformers. The EIS has become the focal point of litigation on the premise that reform requires external pressure: action must be forced. If action is not forced, agencies adhere to established patterns of policies, procedures, and programs whereby they endeavor to maintain predictable relationships with clientele groups which they do not want disrupted. In this view, in brief, agencies seek stability and avoid change.[13] Familiar concepts of social science inquiry into administrative behavior, including professional bias, capture, and survival strategies, can be observed in typical analyses which enhance the aura of the insulated agency.[14]

The antiagency component of the external reform model has been intensified by environmental activists' reliance on the courts to interpret the EIS requirements. Dreyfus and Ingram note the dysfunctional aspects of court involvement in terms of the length and complexity of EIS documents.[15] The dominance of the courtroom's adversarial format in early discussions of environmental reform, com-

11. J. SAX, DEFENDING THE ENVIRONMENT: A STRATEGY FOR CITIZEN ACTION 100 (1971).

12. 6 ENVT'L L. REP. 10164, 10167 (1976).

13. *See* Cortner, *A Case Analysis of Policy Implementation: The National Environmental Policy Act*, 16 NAT. RESOURCES J. 327 (1976).

14. *See* Sax, *The Unhappy Truth About NEPA*, 26 OKLA. L. REV. 239, 248 (1973) for a discussion of factors undermining the EIS process.

15. Dreyfus & Ingram, *The National Environmental Policy Act: A View of Intent and Practice*, 16 NAT. RESOURCES J. 258, 261 (1976).

bined with the frequency of judicial findings that agencies had indeed violated the fundamental mandate of environmental protection, fueled the polarization of the early 1970s and redoubled the apparent need for externally forced reform. On balance, although opposition to the "duly constituted authorities"[16] has been an important aspect of the ideology of environmentalism,[17] such attitudes are a better indication of the nation's angry, antigovernment mood in the late 1960s and early 1970s than an accurate assessment of the bureaucracy.

The tendency of government agencies to avoid radical or sweeping change is not unique to them nor does it necessarily indicate insensitivity to changing public values, expectations, and preferences. Views of the bureaucracy that focus exclusively on change avoidance are too narrow to account for the ongoing expansion and diversification of many agency missions. Administrative intransigence is frequently not an effective survival strategy but rather an invitation to attack. Agencies must be responsive if they are to maintain and enhance their authority, programs, and budget. They respond to pressure "by modifying existing policy or developing new ones."[18] Almost two decades ago, Norton Long observed that, in the American political system, the bureaucracy "has a large share of the responsibility for the public promotion of policy and even more in organizing the political basis for its survival and growth."[19] Frequently, agencies are more than merely responsive to public pressures in order to survive; they take an entrepreneurial role, leading public opinion in order to grow. Rourke notes wryly that agencies can be "extremely adroit in organizing pressures upon themselves to which they seem to be responding, but which they are in fact initiating."[20]

These venerable insights balance the view of executive agencies exemplified by the external reform model and suggest additional factors which must be weighed in considering routes to administra-

16. L. CALDWELL, S. HAYES & L. MACWHIRTER, CITIZENS AND THE ENVIRONMENT: CASE STUDIES IN POPULAR ACTION, xi (1976).

17. The tendency of environmentalists to view themselves as outsiders attempting to force environmental values into decision-making processes is ubiquitous in the movement. *See* McGarity, *The Courts, the Agencies, and NEPA Threshold Issues*, 55 TEX. L. REV. 801, 806 nn. 17-20 (1977). To some extent, "good guys" versus "bad guys" approaches to administrative reform are validated by the extensive agency capture literature. The tendency to oversimplify or caricature one's adversary is not, in any event, a quirk of environmentalists.

18. F. ROURKE, BUREAUCRACY, POLITICS, AND PUBLIC POLICY 103 (1969).

19. N. LONG, THE POLITY 53 (1962).

20. F. ROURKE, *supra* note 18, at 17. The difference between entrepreneurial empire building and laudable executive leadership may be in the eye of the beholder, but it deserves attention.

tive reform. The "internal" view anticipates differential response within an agency to a changing environment. In addition to the "conservers"—to use Downs' classic typology—who are seen in the external model as the dominant or exclusive components of an agency, there are climbers, zealots, advocates, and statesmen.[21] The conservers and zealots who are committed to existing programs indeed may resist new developments. Other agency actors, however, see the necessity and opportunity for responding to and creating change. Modification of agency position results from the inside reformer's successful manipulation of within-agency legitimacy and authority in combination with real or induced external pressure.

The internal model of reform has not been totally overlooked in environmental discussions of the last decade. Friesema and Culhane, for example, note that the Forest Service has successfully used the EIS process to generate sufficient pressure to justify significant restrictions on minerals development on the national forests.[22] Dreyfus and Ingram, moreover, note that NEPA as originally drafted relied on internal reform for effectuation of new priorities. This focus, however, was diluted in compromise that preceded enactment of the legislation and was buried in the environmentalists' rush to the courts in the early 1970s.[23]

Despite the overall preoccupation with NEPA as an external "action forcing" mechanism, the statute contains language suggesting that reformers on the inside can arguably justify reinterpreting and redirecting agency programs. Section 102(1), which has been almost unnoticed by the public and insufficiently addressed by professional observers, states that "to the fullest extent possible: (1) the policies, regulations and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act."[24] The effect of this section on existing agency mandates has been occasionally and inconclusively debated in both Congress and the courts and among scholars. The relevant legal issue centers on whether or not the agencies are obliged or merely permitted to read existing mandates in the light of NEPA's broad policy goals. Early attempts to find in 102(1) a requirement that agencies reinterpret statutes or base decisions on environmental factors rather than

21. A. DOWNS, INSIDE BUREAUCRACY 88 (1966).

22. Friesema & Culhane, *Social Impacts, Policies, and the Environmental Impact Statement Process,* 16 NAT. RESOURCES J. 350, 351 (1976); *see also* Wichelman, *Administrative Agency Implementation of the National Environmental Policy Act,* 16 NAT. RESOURCES J. 263 (1976).

23. Dreyfus & Ingram, *supra* note 15, at 258.

24. NEPA §102(1), 42 U.S.C. §4332 (1970).

simply weigh and consider them gained some early support but later faltered. The Calvert Cliffs decision, among the earliest and most expansive of the NEPA decisions, raised the possibility that future litigation might result in such an obligation.[25] Since 1973, however, the matter has not been pressed by the courts. Recent Supreme Court interpretations of NEPA suggest that attempts to revive the dormant hope will fail.[26]

While the courts seemingly will not use Section 102(1) to force action, it is nonetheless true that, "where agencies have the discretion to shape the impact and direction of their programs, NEPA *enables* them to . . . implement the national environmental policy."[27] It is this "enabling" aspect of NEPA which invites closer attention to agency efforts to initiate reform in dealing with the environmental issues within their mandates.

FEDERAL MINERALS POLICY UNDER THE 1872 MINING LAW: THE "PRUDENT MAN" RULE AND THE MARKETABILITY TEST FOR DETERMINING DISCOVERY OF A VALUABLE DEPOSIT

Government policy toward the mineral riches of the public domain was codified first in 1866[28] and then in the General Mining Law of 1872,[29] which remains essentially unchanged today. Although the 1920 Mineral Leasing Act[30] created an alternative to the 1872 system for certain sedimentary deposits such as coal and phosphate, the administration of the newer Act has been significantly defined by concepts and precedents set under the older statute. Accordingly, developments in the leasing area cannot be appreciated without some understanding of the antecedents and the evolution of federal mining law.

From present-day perspective, the most remarkable feature of the 1872 Mining Law is its longevity. Passed in an era when the prime goal for federally owned resources was disposal, the statute is an anachronism in today's multiple-use framework. In contrast with the retention and management orientation of more recent legislation, the 1872 Act was founded on two basic principles: (1) that the highest and best use of any federal land is mineral production and (2) that

25. 449 F.2d 1109 (D.C. Cir. 1971).
26. *See* Sierra Club v. Kleppe, 96 S. Ct. 2718 (1977); Vermont Yankee Nuclear Power Corp. v. NRDC, Inc., 98 S. Ct. 1197 (1978).
27. Anderson, *The National Environmental Policy Act*, 1 FED. ENVT'L L. 286-89 (1974).
28. 30 U.S.C. §§43, 46 (1970).
29. 30 U.S.C. §211(b) (1970).
30. 30 U.S.C. §§181-287 (1970).

private development of minerals is so obviously preferable to government retention and management that miners should be encouraged, not just permitted, to develop their claims; and the government should eschew any royalty.[31]

In accordance with these principles, the 1872 law established a system of location whereby any interested prospector could, with a minimum of personal expenditure, acquire rights of possession to mineral deposits as well as title to the overlying land. As an initial step, the prospector could stake a claim wherever minerals existed or were likely to be found, provided the land had not been withdrawn from the operation of the Mining Law. The prospector could assert no rights against the federal government until proof of discovery was made. Nevertheless, the simple rituals of staking and recording a claim gave the prospector substantial if not complete control over the land including the minerals beneath it and whatever surface resources were needed in the development of the claim.[32]

The federal government's authority to regulate mining claims and their impacts on surface resources is seriously restricted by the Mining Law. The most common method for dealing with Mining Law abuses has been to completely circumvent the statute by closing the land to mining through classification, withdrawal, or reservation. Classification categorizes land for a certain predominant use and places the land under the operation of statutes appropriate to that use. Withdrawal involves the opposite procedure: rather than assigning lands to, it withdraws them from the effect of a particular statute such as the Mining Law. Reservation is a procedure whereby lands are withdrawn to be dedicated to a specified public use such as national forest, park, or wildlife refuge and is frequently taken in conjunction with a withdrawal. The Mining Law, however, may still operate in certain reservations, such as national forests, unless the land is specifically withdrawn from mineral entry.

Contemporary developments in federal mining administration have centered on lands entered and claimed under the 1872 law. In 1955 Congress passed the Surface Resources Act which granted the government authority to manage timber, forage, and other surface resources on all mining claims located after the effective date of the Act.[33] A landmark Supreme Court case in 1970 decided for the first time that

31. *See, e.g.*, Hagenstein, *Changing an Anachronism: Congress and General Mining Law of 1872*, 13 NAT. RESOURCES J. 480, 481-83 (1973); Strauss, *Mining Claims on Public Lands*, 1974 UTAH L. REV. 185, 187 (1974); *see generally*, U.S. DEP'T OF THE INTERIOR, REPORT OF THE MINERAL LANDS AVAILABILITY TASK FORCE (1977).

32. Strauss, *supra* note 31, at 187-90.

33. 30 U.S.C. §§611-615 (1970).

the government has the authority to repossess claims on which miners fail to perform the $100-worth of annual "assessment work" mandated by the 1872 law.[34] In the most recent example of increased federal supervision of mining activities, the 1976 Federal Land Policy and Management Act requires prospectors to record their claims not just at the county courthouse under state law but with the U.S. Bureau of Land Management as well.[35] This procedure gives the Bureau for the first time in history basic information on the myriad mining claims encumbering federal lands. Failure to file is considered tantamount to abandonment of the claim. It should be noted, however, that as significant as the Congressional and judicial activities are, they do not alter the basic priorities of the 1872 statute.

The most significant change in the area of Mining Law administration has occurred in the evolution of the test used by the Department of the Interior to determine whether or not a claimant has discovered a valuable deposit of minerals. In the language of the Mining Law, it is only "valuable mineral deposits . . . [that] shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase. . . ."[36] It is not difficult to see how altering the definition of a valuable deposit would affect whether or not a claimant gained possession of the discovered minerals and, if desired, patent to the overlying land. In this sense, the changing interpretation of valuable deposits "has clearly been the instrument of policy."[37]

Valuable deposits were first defined by an 1894 Department of Interior decision that formulated the classic test known as the "prudent man" rule. Castle vs. Womble concluded that a valuable deposit under the 1872 Mining Law was one "of such character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine."[38] The prudent-man interpretation was affirmed and clarified in 1905 by the Supreme Court. The Court held that a valuable deposit was one that warranted the expenditure of the prospector's "time and money in the development of the property."[39]

More than 60 years later, the Supreme Court considered a case

34. Hickel v. Oilshale Corporation, 400 U.S. 48, 57 (1970).
35. 43 U.S.C. §1744(a)(2) (1976).
36. 30 U.S.C. §22 (1970).
37. Strauss, *supra* note 31, at 189.
38. Castle v. Womble, 19 Interior Dec. 455 (1894).
39. Chrisman v. Miller, 197 U.S. 313, 323 (1905).

that arose to contest an Interior Department requirement that, for a deposit to be valuable, it must be able to be developed and sold at a profit. This criterion, known as the marketability test, was approved by the Court which described it as "a logical complement to" and "a refinement of" the prudent-man rule.[40] The Court's basis for recognizing this essential link between prudence and profitability was its conclusion that "minerals which no prudent man will extract because there is no demand for them at a price higher than the cost of extraction and transportation are hardly economically valuable."[41] The prudent man does not develop a mine merely to break even: he is a profit-seeking entrepreneur.

The marketability interpretation of the 1872 Mining Law has been criticized as an unwarranted and artificial addition to the requirement of prudence in mineral development.[42] Nonetheless, its adoption by the Department was illustrative of the growing effort throughout the 1960s to more aggressively challenge invalid mining claims. During this period, the Department also fortified its contest proceedings against claims for which patent applications had been filed but discovery unable to be shown.[43] Ironically, while these alterations in administrative procedure were significant and gave the Department greater control over mining claims on federal lands, they also resulted in fewer miners applying for patents. If miners could stake and work their claims by merely following the rituals of location, there was little point in their risking invalidation by seeking a patent which required evaluation of their holdings under the marketability test.[44] As a result, abuses under the Mining Law still abound and cry for reform.

FEDERAL MINERALS POLICY UNDER THE 1920 MINERAL LEASING ACT: SETTING THE STAGE FOR ENVIRONMENTAL CONFLICTS OVER PREFERENCE-RIGHT LEASING IN THE 1970s

In the decades following 1872, it became obvious that the Mining Law was the source of serious difficulties in federal land management. major problem was that prospectors fraudulently used the law to acquire surface resources under the pretence of conducting mining work. It was also clear that the 1872 location system was inappro-

40. Coleman v. United States, 390 U.S. 599 (1968).

41. *Id.* at 602.

42. Reeves, *The Law of Discovery Since Coleman,* 21 ROCKY MTN. L. INST. PROC. 425 (1975).

43. Hochmuth, *Government Administration and Attitudes in Contest and Patent Proceedings,* 10 ROCKY MTN. L. INST. PROC. 467, 485 (1965); *see also* Strauss, *supra* note 31, at 211.

44. Strauss, *supra* note 31, at 192-93.

priate for certain classes of nonmetalliferous minerals. In response to these concerns, Congress passed the 1920 Mineral Leasing Act[45] which withdrew a number of minerals from the operation of the Mining Law. The minerals placed under a new leasing system included coal, phosphate, oil, gas, oil shale, sodium, and potassium.[46]

The leasing system differed radically from the location system of the 1872 Mining Law. Most striking was the fact that the government retained control over the leasing. Title to and management responsibility for the surface remained in federal control. The government decided which lands to lease and when and under what conditions to lease them. A second major difference was the Leasing Act's provision for government revenue: lessees were required to pay rent on the land and a royalty on any minerals produced.[47]

Two basic types of leases were offered under the Mineral Leasing Act.[48] In areas where the geology and nature and extent of the mineral deposits were known, leases were offered at public auction under a competitive bidding arrangement. For tracts that had not been explored, prospecting permits were issued giving a permittee exclusive right to work in an area for a two-year period. If minerals were discovered, the permittee was free to apply for a noncompetitive or so-called "preference right" lease. This noncompetitive arrangement was designed to keep public-land mineral development in private hands by providing an incentive to individual operators to explore in areas of unknown mineral potential.[49]

The Mineral Leasing Act helped correct many of the abuses perpetrated under the 1872 Mining Law. By the 1970s, however, it was evident that leasing procedures were not operating ideally. The shortcomings of leasing were especially apparent in the case of coal which was fast becoming a focal point of public attention in an energy-dependent and environmentally conscious age. From one point of view, the federal coal-leasing program was criticized for its failure to respond to the growing energy needs of the country. At the other end of the spectrum, environmental advocates assailed the system for

45. 30 U.S.C. § § 181-287 (1970).

46. Coal was actually covered not by the 1872 Mining Law but by the Coal Lands Act of March 3, 1873 (R. S. § § 2347-52).

47. The Mining Law produced federal revenues only by means of the insignificant fees charged for patents. Many prospectors, however, never even bothered to carry their claims to patent; *see* text accompanying note 42 *supra.*

48. Vlautin, *To Lease or Locate,* 19 ROCKY MTN. L. INST. PROC. 393, 402 (1973).

49. Note that the preference-right leasing was abolished by the Federal Coal Leasing Act Amendments of 1975; *see* text accompanying note 55 *infra;* resolution of the commercial-quantities debate continues nonetheless to be central to determining the status of pending preference-right lease applications and those which might arise pursuant to prospecting permits issued prior to passage of the act. *See* notes 55-58 *infra* and text accompanying.

the threat which it presented to ecological values and for its failure to protect that land from intensified mining pressures.

Those concerned with mineral production quotas pointed to statistics which showed that the bulk of the nation's low-sulfur coal was found on federal lands in the West. Although many of these lands had been leased, the pace of production was not keeping up with that of leasing. Between 1945 and 1970, the extent of federal acreage under lease increased nearly tenfold; but annual coal production declined 25 percent.[50] From these figures, the disturbing reality of the situation emerged: mining interests were renting thousands of federal acres but were delaying production.

The amount and nature of the land under coal leases was also a source of concern because the government had awarded leases with little thought given to environmental impact. Many coal leases were located in semiarid areas of the West where low rainfall makes reclamation difficult if not impossible. In 1951 the Interior Department began adding an environmental safeguard section to leases, but the terms were vague and not uniformly enforced.[51] In 1969 regulations were issued requiring the incorporation of environmental protection measures in exploration and mining plans.[52] A 1972 General Accounting Office Report found, however, that the regulations and their enforcement were unsatisfactory for a number of reasons.[53] Furthermore, whatever protective measures had been taken were dismissed as inadequate by growing numbers of environmentalists.

In the midst of growing concern over the coal program, the Interior Department recognized the need for a comprehensive, critical scrutiny of its leasing procedures. In May, 1971, Interior Secretary Rogers Morton imposed a moratorium on all coal-leasing activity. This moratorium was extended in February, 1973, when the issuance of coal prospecting permits was also stopped. Thereafter, leasing was allowed only under prescribed "short term criteria" designed to keep existing mines operating and needed fuel supplied.[54] In the meantime, the Department concentrated on the development of a coherent coal-leasing program that could insure orderly production, protect the environment, and allow a fair-market return on coal through an open and competitive leasing system.

50. Natural Resources Defense Council v. Hughes, 437 F. Supp. 981 (D.D.C. 1977).
51. COUNCIL ON ECONOMIC PRIORITIES, LEASED AND LOST 27-28 (1974).
52. *Id.*
53. COMPTROLLER GENERAL OF THE UNITED STATES, ADMINISTRATION OF REGULATIONS FOR SURFACE EXPLORATION, MINING, AND RECLAMATION OF PUBLIC AND INDIAN COAL LANDS (1972).
54. ENVIRONMENT REPORT, *Major Revisions Likely in Federal Coal Leasing Program*, 7 NAT. J. REP. 1101-03 (1975).

Efforts to develop a new coal-leasing policy focused on a competitive process which was eventually made law by the Federal Coal Leasing Amendments Act passed in 1976.[55] The amendments, however, did not affect "valid existing rights" that included applications for preference-right leases filed under the old noncompetitive system. At the time of the moratorium, approximately 190 of these applications existed which covered an estimated 9 billion tons of coal.[56] Some of these lease applications involved underground mines and were not of great concern to environmentalists. Other applications, however, such as those submitted for mining in the Powder River Basin of the Northern Great Plains region, were the source of considerable controversy.[57] A further problem was that, in addition to the applications already filed, nearly 30 prospecting permits had been issued prior to 1973 for which lease applications had yet to be submitted.[58]

Concern and controversy over preference-right lease applications was not confined to coal, even though the coal-leasing program was the largest of the Department's mineral-leasing programs and attracted much of the criticism. The processing of applications for phosphate deposits also was controversial, principally because of two large mining developments that threatened to impair substantial natural resources. The first of these controversies involved applications by the Kerr-McGee Chemical Corporation and other enterprises for preference-right leases to mine phosphate in an area covering one-third of the Osceola National Forest in north-central Florida. In 1971, the State of Florida brought suit against the federal government to enjoin issuance of the leases as a violation of NEPA.[59] The state opposed the mining operation mainly because officials feared contamination of the Floridan aquifer which supplied water to all of the northern peninsular portions of the state. The forest was also valuable habitat for 11 species classified as threatened or endangered under state and federal standards.[60] Despite state and federal opposition to the leases, including a U.S. Environmental Protection Agency recommendation issued early in 1975 that no phosphate mining should be allowed to take place in the area,[61] the most recent In-

55. 30 U.S.C. 4 § 201 (1977 Supp.).
56. PUB. LAND NEWS, May 20, 1976, at 5-6.
57. PUB. LAND NEWS, April 6, 1978, at 1-2; *but cf.* Sierra Club v. Kleppe, 96 S. Ct. 2718 (1977).
58. ENVIRONMENT REPORT, *supra* note 54.
59. State of Florida v. Morton, No. 71-1496 (D.D.C., filed July 27, 1971).
60. Brief for Appellants, Kerr-McGee Chemical Corporation v. Andrus, No. 77-1785 (D.C. Cir. 1977).
61. 5 ENVT'L L. REP. 10048 (1975).

terior Department study of the issue concluded that the environmental impacts would not be as serious as previously feared.[62]

The second phosphate mining dispute arose over a lease application filed by the U.S. Gypsum Company in 1969. This application was of concern because the mining was to take place in the Los Padres National Forest, just a few miles from a California condor sanctuary. In 1972, the State of California reacted to the situation by petitioning the Interior Department to weigh the economic benefits expected from the phosphate mining against the costs of environmental damage inflicted on the condor population.[63] As one University of California scholar somewhat dryly concluded, "The public could legitimately question the wisdom of using public land for such an endeavor as this and risking an endangered species of international significance . . . when it has not even been clearly demonstrated that the benefits to society outweigh the costs."[64]

INTERIOR DEPARTMENT DEBATE OVER PREFERENCE-RIGHT LEASE APPLICATIONS: FORGING THE LINKS BETWEEN THE MINING LAW, MINERAL LEASING ACT, AND NEPA

The Los Padres and Osceola decisions, pending during the general overhaul of the coal-leasing program, caused the Department to scrutinize its policies for awarding preference-right leases for coal and phosphate. While it would have been straightforward to simply deny the lease applications on the basis of environmental unacceptability, the situation was not to be so easily resolved. Difficulties stemmed from the particular language of the Mineral Leasing Act, its apparent relationship to the Mining Law, and its meaning in light of NEPA. The process of interpreting the interrelationships between these three statutes led to the promulgation of the 1976 commercial-quantities regulations, but only after intense internal disagreement that revealed the wide range of perspectives prevalent within the Department and its component agencies and offices.

62. U.S. DEPARTMENT OF THE INTERIOR, IMPACT OF POTENTIAL PHOSPHATE MINING ON THE HYDROLOGY OF OSCEOLA NATIONAL FOREST, FLORIDA (1978).

63. *In Re Revaluation of Value of Phosphate Deposits in Los Padres National Forest*, 2 ENVT'L L. REP. 65198 (1972).

64. R. C. Bishop, Conservation of the California Condor in Relation to the Proposed Phosphate Mining and Processing Operation in Los Padres National Forest 24 (July 27 and 28, 1971) (statement delivered at U.S. Department of the Interior Hearings, Ventura, California). Although the California condor has attracted considerable public attention, the Florida lease situation was probably of greater salience within the Interior Department. This was both because the Department was at the same time considering a lease exchange which would eliminate the condor problem and because the Assistant Secretary for Fish, Wildlife, and Parks was from Florida (personal communication with David E. Lindgren 2, February 23, 1979).

The basic starting point for the debate over noncompetitive[65] leasing procedures was the 1920 Mineral Leasing Act which stated that, if a miner operating under a prospecting permit discovered "coal in commercial quantities" or "valuable deposits of phosphate," then "the permittee shall be entitled to a lease. . . ."[66] To obtain a noncompetitive lease for sodium, sulfur, or potassium, the Mineral Leasing Act requires not only that valuable deposits of these minerals be discovered but that the land be "chiefly valuable therefor."[67] This highest-use stipulation gives Interior additional administrative discretion that, when exercised in light of NEPA, can result in outright denial of an undesirable lease. The highest-use criterion is not, however, applicable to coal or phosphate.

In the absence of a highest-use guideline, the issue of denying noncompetitive leases for coal and phosphates presented two legal questions: (1) did the 1920 Act, by itself or with NEPA priorities superimposed, authorize the Secretary to deny leases outright; and, if not, (2) how were commercial quantities of coal and valuable deposits of phosphate to be defined for purposes of determining that the permittee had made a discovery which required that he "shall be entitled to a lease . . . ?"[68]

Discretion to Deny a Lease to a Qualified Applicant

In light of the Osceola and Los Padres National Forest mining controversies during this period of reassessment, the Secretary of the Interior raised the direct question of whether he had any authority to deny the leases. Resolution of this issue required interpretation of the language of the Mineral Leasing Act to determine the nature of the right involved in the successful permittee's application for a noncompetitive lease. Although debate over the correct interpretation of the Act was essentially a legal question, the debate involved many actors outside of the Office of the Solicitor. Within that Office, however, the key arguments were fully articulated. One predominant faction stood staunchly behind the long-standing position of the Department that the Secretary had no discretion to refuse to issue a lease if the proper showing of commercial quantities of valuable

65. It is common Department practice to equate the leasing terms "noncompetitive" and "preference right," and this paper uses the two interchangeably; however, in the context of the Mineral Leasing Act, preference right is actually a misnomer since the right involved is interpreted by the Department as an absolute one; *see* text accompanying notes 70-72 *infra* for further discussion of this point.

66. 30 U.S.C. § § 201(b) (coal), 211(b) (phosphate) (1970).

67. 30 U.S.C. § § 262 (sodium), 272 (sulfur), 282 (potassium) (1970).

68. *Id.*

deposits was made.[69] This interpretation relied partly on the word "shall" in the phrase "shall be entitled to a lease," which was read to denote a mandatory rather than a discretionary duty. Second, the use of "entitled" seemed to signify that the permittee who made a successful showing had an absolute right to a lease with which secretarial discretion could not interfere. The no-discretion interpretation was further bolstered by the Leasing Act language stating that the qualified permittee was entitled "to a lease" and not, specifically, to a "preference right lease." Since a careful perusal of the structure and wording of the Act revealed that Congress was cognizant of the distinction between a preferential and an absolute right to a lease and, since Congress did not qualify "lease" with preference-right in the sections under scrutiny, Congress must have intended the right to be an absolute one.[70] In addition, the no-discretion, absolute-right interpretation corresponded with the generally accepted concept of a guaranteed lease as a reward for a successful prospector's efforts to discover valuable minerals.

Interestingly, the Department's traditional interpretation of the non-competitive lease applicant's right as absolute appeared to have been contradicted in its Departmental regulations that referred to noncompetitive leases as preference-right leases.[71] Their use of the term "preference right" seemed to imply that the permittee had a right to preferential treatment in the awarding of a lease *if* the Secretary decided to issue one, rather than a right to the lease itself. The Department explained that its use of the preference-right wording was an error that did not qualify the nature of the right under contention.[72]

Opposing the Department's traditional no-discretion stance were a few attorneys within the Solicitor's Office who took the position that the 1920 Act gave the Secretary authority to directly deny a lease. This view was supported in part by a 1950 Supreme Court decision that stated, ". . . we find no grant of authority [in the Mineral Leasing Act] to create a private contract right that would override his [the Secretary's] continuing duty to be governed by the public interest in deciding to lease or withhold leases."[73] Environ-

69. For a detailed account of the Department's reasoning on this issue, *see* Garner, *Mineral Leasing: Toward a Workable Definition of "Commercial Quantities,"* 47 U. COLO. L. REV. 707 (1976).

70. *Id.* at 714-15.

71. 43 C.F.R. §3520.1 (1974).

72. Office Memorandum Re/Preference Right Leases for Coal, Sodium, Phosphate, Sulfur, and Potassium from Deputy Solicitor Lindgren to Undersecretary, Assistant Secretary, Energy and Minerals 9 (Dec. 4, 1975).

73. Chapman v. Sheridan-Wyoming Coal Co., 338 U.S. 621, 628 (1950).

mental protection advocates asserted further that, even if the Secretary had no discretion under the 1920 Act to withhold a lease, NEPA provided the necessary authority to do so. Specifically, the Assistant Solicitor for Environmental Law in the Division of General law argued that "NEPA enables the Secretary to deny an application filed by a prospecting permittee, even though the permittee fully complies with the requirements set forth in the Mineral Leasing Act."[74] This opinion was based on Section 102 of NEPA which mandates that "to the fullest extent possible: the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act. . . ."[75]

The agitation within the Division of General Law for a more expansive interpretation of the Secretary's authority to directly deny a lease corresponded with the Division's functions and interests as distinguished from the rest of the Solicitor's Office. The Division of General Law included the legal staff responsible for the Department's NEPA compliance and litigation. NEPA was the sole concern of the Environmental Law Branch, and a broad reading of NEPA requirements was the basis of Branch efforts to expand its own role in Department policy discussions. Within the Solicitor's Office, however, the NEPA-oriented contingent was directly opposed by attorneys in the Minerals Branch of the Division of Energy and Minerals. The Minerals Branch agreed with more than 50 years of Department policy and maintained that NEPA was a supplement to existing authorities, not an alteration of them. Support for this viewpoint was drawn from Section 105 of NEPA which states that "the policies and goals set forth in this Act are supplementary to those set forth in the existing authorizations of Federal agencies." The courts have interpreted this section to mean, in part, that observance of NEPA is not required where "this would prevent the agency from complying with its duties under existing authority."[76] Because NEPA in this framework became merely "an additional facet of an already existing discretion," it was powerless to upset the prevailing view that the Secretary had no authority to deny a noncompetitive lease to a qualified permittee.[77]

74. Office Memorandum Re/Mineral Leasing Act of 1920–Sec. 201(b)–Relationship to NEPA from Assistant Solicitor to Deputy Solicitor, Environmental Law, Division of General Law, Department of the Interior 1 (Aug. 21, 1975).

75. 42 U.S.C. §§4331-4347 (1970).

76. Office Memorandum Re/Preference Right Leases, *supra* note 72.

77. Office Memorandum Re/"Preference" Right Leases–Coal, Sodium, Phosphate, Sulfur, and Potassium from Solicitor Frizell to Undersecretary Lyons 7 (June 30, 1975). Lindgren notes that NEPA's policies are broad but really rather flabby. Section 103 of

The debate on the discretion issue was prolonged, but in the end the point was resolved in favor of existing policy. Despite NEPA's undisputed relevance to the discussion, much of the debate concerned minute interpretations of statutes in which the Minerals Branch was obviously expert. Accordingly, the views of that Branch were taken quite seriously within the Department. Moreover, the position advocated by the Environmental Law Branch depended to a considerable degree "on a stretching of *dicta* in a number of key NEPA cases."[78] In the final analysis, although environmental concerns were a significant motivating factor in the attempt to reinterpret the Act, lawyerly concern with proper interpretation of the language overcame the push for change advocated by attorneys with other interests within the Solicitor's Office.

Defining "Commercial Quantities" and "Valuable Deposit" Under the Mineral Leasing Act

Once it was conceded that the Mineral Leasing Act allowed the Secretary no discretion to reject a successful lease application, the Department addressed the problem of defining commercial quantities and valuable deposits—the essence of successful discovery. Like the discretion issue, this question was in large part a matter of statutory interpretation. Again the Solicitor's Office was intimately involved. However, the debate spread significantly beyond a scholarly inquiry into legal technicalities and embraced an array of competing values and policy concerns. The debate over the discovery test included, therefore, a broader range of actors and alternatives than did the argument over Secretarial discretion and demonstrates even more vividly the intensity and diversity of intra-agency deliberation.

The disagreement over the coal and phosphate discovery test arose because the meaning of analogous terms had never been formally clarified under the Mineral Leasing Act. As the debate took shape, three major alternatives emerged. The first of these based discovery on the physical *workability* of the deposit; the second, on the economic *marketability* of the deposit; and the third, called the *social balancing* test, on the net social benefits to be gained from the mining venture. Each of these tests had advocates within the Department who argued on the basis of their own particular substantive preferences, political sensitivities, and professional inclinations.

NEPA requires an analysis of statutes which might preclude full compliance with NEPA. The Department of the Interior's report listed the Mineral Leasing Act as one of those statutes. Lindgren, personal communication, *supra* note 64, at 3.

78. *Id.*

Since 1920, it had been the Department's long-standing practice to use a simple workability test to validate commercial quantities of coal and valuable deposits of other leasable minerals. The workability test had always been applied by the U.S. Geological Survey and involved a relatively uncomplicated set of concepts focusing on the physical features of the discovered deposit. A workable deposit constituting a discovery and requiring issuance of a lease was, therefore, one which exhibited "physical characteristics (depth, thickness, quality, etc.) . . . such that the deposit could be mined under existing or easily foreseeable techniques."[79] No attention was given to external factors such as the costs of development and transportation or the availability of markets.

The workability test was supported by the weight of tradition. Moreover, the U.S. Geological Survey, being familiar with the test and finding it well within its professional competence, argued for its preservation. Within the Solicitor's Office, however, the Assistant Solicitor for Minerals had been arguing for nearly 20 years that the workability test was based on a misreading of the Mineral Leasing Act. The same attention to statutory language which led him to conclude that the Secretary had no discretion to deny a lease to a successful permittee had convinced him that workability was an inappropriate test for discovery. Furthermore, despite the Geological Survey's position in favor of the status quo, the upper echelons of the Department had become increasingly uncomfortable with the noncompetitive leasing system in general and even advocated legislation for its alteration.[80] Finally, the pressure generated by the Osceola and Los Padres environmental controversies gave impetus to the belief that a standard more comprehensive than mere workability was proper under the 1920 Act. NEPA was a focus in the discussion not because Section 102(1) was legally necessary to a rereading of the 1920 Act but because it provided a rallying point and a makeweight for the reform advocates.

The departure from workability was supported by its view of the critical relationship between the Mineral Leasing Act and the prudent-man/marketability discovery standards developed under the 1872 Mining Law.[81] To successfully sustain this line of reasoning, the first question which had to be settled was whether or not the use of the words "valuable deposit" in the Leasing Act meant the same

79. Office Memorandum Re/Administrative Feasibility of Alternate "Commercial Quantities" Tests from Assistant Secretary Hughes to Secretary et al. 2 (June 16, 1975).

80. Office Memorandum Re/Preference-Right Coal Leasing from Assistant Secretary Hughes to Solicitor 4 (Feb. 1, 1975).

81. *See* text accompanying notes 37-42 *supra.*

thing as the use of the same words in the 1872 statute. It was also necessary to determine whether or not Congress intended a different treatment for coal by disclaiming the more common terminology of "valuable deposit" and instead requiring that "commercial quantities" of coal be discovered. The Minerals Branch concluded on the basis of a careful probe of the mining and mineral leasing laws and legislative histories, as well as pertinent Department circulars and cases, that Congress had indeed intended that a deposit valuable for leasing be considered to be the same as a deposit valuable for location under the 1872 system. The more difficult problem was proving that valuable deposits and commercial quantities were equivalent terms.[82] Among the several sources of evidence cited to this end, one of the most effective was Circular No. 594 on potash. This circular, issued to implement the 1917 Act first removing potassium from the Mining Law[83] directly connected the two terms in stating that "the discovery of a valuable deposit of potash . . . shall be construed as the discovery of a deposit which yields commercial potash in commercial quantities.[84]

The next step taken in the legal analysis involved association. If valuable deposits and commercial quantities under the Leasing Act were the same, and if they were identical in meaning to valuable deposits under the 1872 law, then it was only logical that the prudent-man/marketability rule formulated to test mining claims should apply to the 1920 Act as well. If the marketability test was appropriate for leasable minerals, then all of the costs that the mining enterprise would have to incur to develop and market the minerals were pertinent to determining a deposit's profitability. These costs included, among others, the costs of complying with the terms and conditions of the noncompetitive lease.

The ingeniousness of the marketability test lay in the fact that, although the Secretary had no authority to deny a lease once discovery had been proved, he did have discretion under the Mineral Leasing Act to set terms and conditions of the lease. Section 187 of the Act gives the Secretary broad authority to make noncompetitive leases subject to "such . . . provisions as he may deem necessary . . . for the protection of the interests of the United States . . . and for the safeguarding of the public welfare."[85] Thus, although the Secretary could not directly refuse to issue a lease, he could express his reservations about doing so in lease stipulations. Under a market-

82. *See* Garner, *supra* note 69.
83. Act of October 2, 1917, 62 Stat. 297 (repealed 1927).
84. *Potash Guidelines,* 594 DEP'T INTERIOR CIRCULAR 338 (1917).
85. 30 U.S.C. §187 (1970).

ability test, these lease terms would count as costs which could then result in the lease being denied on the grounds that it failed to pass the discovery test. In short, the marketability test had the potential of being nearly as effective an administrative tool as outright discretion to deny a lease.

Because the Secretary had always had power under Section 187 of the Mineral Leasing Act to set lease stipulations in the public interest, NEPA language was not strictly necessary to establish the Secretary's authority to condition leases for environmental protection purposes. However, NEPA's mere existence influenced the measures which the Secretary might consider under Section 187 in response to changing perceptions of the public interest and welfare. While safeguarding the environment was not a paramount public interest issue in 1920, the passage of NEPA made clear that it had become so by 1970. Although NEPA, as the Solicitor's Office concluded in 1975, did "not allow the Secretary to refuse to issue a lease to a prospective permittee who had made a discovery . . . ," it did "guide the Secretary in choosing lease terms."[86] Under this rationale, the concept of marketability was critical. Marketability incorporated lease terms directly into the discovery test, thereby according substantial weight to environmental factors in the decision of whether or not to award a coal or phosphate preference-right lease.

While the Geological Survey held to workability and minerals lawyers in the Solicitor's Office insisted on the statutory correctness of marketability, a third group joined the debate from a different sector of the Department. Economists in the Office of Policy Analysis, under the supervision of the Assistant Secretary for Program Development and Budget, maintained that the appropriate definition of the discovery test was neither a geological nor a legal issue but was a broader question of public policy. The policy analysts were most concerned with convincing marketability proponents that their test did not go far enough. In its place the analysts advocated an economic approach. They concluded in light of the NEPA mandates that discovery required a "social balancing" test, going beyond the profitability of the individual deposit to weigh the benefits and costs to society of the proposed mining activity.[87]

The social-balancing argument was based on the premise that the lease stipulations that the Secretary was allowed to set in the public interest under Section 187 of the 1920 Act were, by the very defini-

86. Office Memorandum Re/Preference Right Leases, *supra* note 72, at 23.

87. The authors are indebted to William Moffat, former Director of the Office of Policy Analysis, for providing the basis for much of the discussion that follows regarding the social-balancing option.

tion of the "public interest," restricted to terms whose benefits exceeded their costs. A stipulation set to protect some aspect of the environment, therefore, could be "in the public interest" only if the cost of complying with it did not exceed the value of the damage which it was intended to mitigate. In view of this restriction on stipulations, social-balancing advocates feared that, under a marketability test, leases could be certified as profitable to the individual firm but still be responsible for environmental damage left unaccounted for. To expand the marketability test to ascertain the "true" profitability of a lease, the social-balancing test was devised. The test modifies what Interior recognizes as a firm's profit by considering not only internal costs of complying with the stipulations but also the external costs of the unmitigated environmental damage.

The intradepartmental debate between marketability and social balancing was largely a conflict between lawyers on the one hand and economists on the other. The lawyers were most concerned with being able to reach fair, consistent, and reasonable decisions on individual leases. To make such decisions required, from their perspective, the promulgation of an easily ascertainable standard or threshold that demarcated the line between cases where leases could be granted and cases where they could not. They believed marketability provided such a standard. Social balancing was objectionable because it would demand tenuous valuations of seemingly immeasurable costs and benefits, invite arbitrary and capricious decision making, and be difficult for the U.S. Geological Survey to administer.

Perhaps more importantly, the marketability advocates were convinced that the social-balancing test went beyond the mandate of the Mineral Leasing Act. Focusing on net social benefits rather than on the profitability of the individual mining venture was tantamount in the lawyers' viewpoint to "changing the meaning of the term valuable deposit (or commercial quantities)."[88] Because "changing the meaning of valuable deposit would clearly amend the Mineral Leasing Act," the social-balancing test and its reliance on NEPA "must be rejected."[89] Marketability, in contrast, was legally authorized since it simply "added a new [discovery] test," thereby "supplementing" but not amending the 1920 Act.[90]

While the legal staff voiced a discomfort with social balancing which appeared to have both subjective and objective components, the policy analysts were equally ill at ease with the lawyers' strict insistence on private profit-oriented marketability. To the policy

88. Office Memorandum Re/Prefernce Right Leases, *supra* note 72, at 23 n. 1.
89. *Id.*
90. *Id.*

analysts, a standard which ignored the costs to society of unmitigated environmental damage was necessarily an incomplete one. Under marketability, a firm would never account for stipulations whose costs outweighed benefits in terms of environmental values preserved—a condition that excluded considering (1) low-probability risks, (2) moderate damage that was expensive to mitigate, and (3) substantial and fairly predictable harms that mining under any terms would be likely to incur. Social balancing appealed to the economist since it internalized these costs within a broadened marketability framework and allowed the decisionmaker to weigh more realistically the full spectrum of benefits and costs involved. What the test lacked in terms of legally sought-after lines it gained in flexibility and the desirability of proper cost accounting. Furthermore, the test was by no means unadministerable; data requirements and other obstacles in exercising dependable judgment were not insurmountable. In 1975 the Office of Policy Analysis experimentally applied social balancing along with the workability and marketability tests to a pending coal preference-right lease application and concluded that "the only major difference between the marketability and overall [social] balance tests lies in what information is used, not in how much extra information is needed or in the difficulty of gathering it."[91]

While the policy analysts maintained that their economic rationale escaped the lawyers and the lawyers contended that social balancing went beyond the law, the two positions were not that far apart in either practical effect or environmental emphasis. The marketability advocates believed that their test gave clout to environmental considerations by calculating protective lease conditions in a deposit's profitability. Social balancers criticized this approach as inadequate, but their skepticism could have been partly due to an overly restrictive interpretation of the public-interest limitation on setting lease terms. As already noted, the social balancers interpreted the public interest in economic terms and concluded that lease terms could not be imposed unless benefits exceeded costs of compliance. The lawyers, however, viewed the public-interest limitation as one requiring that the lease terms be reasonable. Reasonableness meant simply that the Secretary

> must not be arbitrary and capricious, but as long as there is a reasonable basis for the terms and provisions which he proposes, and they are not in conflict with other requirements of the statutes, they are acceptable. . . . If the Secretary, without being arbitrary or capricious, determines that a provision is needed . . . he must include it,

91. Office Memorandum Re/Preference-Right Coal Leasing, *supra* note 80, at 8.

> and the fact that it may render mining under the lease uneconomic is immaterial.[92]

This broader legal view of the public interest would seem to indicate that the marketability test encompassed a greater range of environmentally protective lease terms than that for which its economist critics gave it credit. Beyond the scope of the lease terms, however, the social balancers were correct in maintaining that, in certain critical cases—notably the mining proposed for the Osceola and Los Padres National Forests—a lease application threatening irreparable environmental harm could pass the marketability test. Marketability would be powerless to screen out such applications since the only lease terms that could be set to avoid the damage—if terms could be specified at all—would amount to banning mining altogether.

Because the overall effect of social balancing was viewed within the Department as the most environmentally oriented, social-balancing proponents tried to enlist the support of Interior agencies which they viewed as strongly committed to the environmental movement—the National Park Service and the Fish and Wildlife Service.[93] Such support was not forthcoming, apparently for several reasons. Both the Fish and Wildlife Service and the Park Service had relatively minimal contact with mineral leasing issues, and neither was willing to enter the debate to protect federal lands not under their jurisdiction. Environmental movement or no, the two agencies were not willing to expend effort on issues that did not concern them. The Assistant Secretary for Fish, Wildlife, and Parks did, however, advocate social balancing in discussions with the Secretary.[94]

It is noteworthy that the social balancers did not consider the Bureau of Land Management (BLM) as a potential ally. Even though the BLM administers the leases, once awarded, there was no attempt by the economists to build support within the Bureau for social balancing. The Bureau was then attempting to shed its prodevelopment image in favor of a multiple-use profile, but the social balancers believed that the Bureau was too program oriented to participate in a policy debate.

The social balancing economists' view of the Bureau notwithstanding, some secretarial-level decision-makers perceived the Bureau not only as having a clear position on the issue but as advocating vigorously in favor of a workability test. The Assistant Secretary for Land

92. Office Memorandum Re/Preference Right Leases, *supra* note 72, at 23.
93. *See* note 87 *supra.*
94. Lindgren, personal communication, *supra* note 64, at 5.

and Water, the "Bureau's Assistant Secretary," initially favored workability but ultimately supported the marketability test. This confusion may have discouraged the social balancers from approaching the Bureau in their quest for allies. However, the policy analysts' assumption that the Park Service and not the BLM would be concerned with the issue, and their failure to note the BLM's activities in opposition to their efforts, is an interesting reflection of secretarial-level isolation from Bureau-level concerns.[95]

The outcome of the three-sided debate between workability, marketability, and social balancing was a set of regulations issued in final form in May, 1976.[96] The regulations reflected the middle ground of marketability which, in the end, prevailed. They accordingly required that a preference-right lease applicant prove discovery as measured by the perceptions of the prudent man and "a reasonable expectation that his revenues from the sale of the mineral will exceed his costs of developing the mine, and extracting, removing, and marketing the mineral."[97] Expenditures made to protect the environment would not be tabulated separately but would be added with other pertinent items to achieve a final figure of costs to the mining enterprise. Then, simply, if "the cost of mining exceeds the value of the deposit the lease application will be denied."[98]

Although marketability occupied the middle ground in the debate, it departed significantly from the workability practice of the past, particularly in its requirement that lease terms be set before rather than after the issuance of a lease. Social balancing at one end of the spectrum and workability at the other placed marketability in the position of a reasonable compromise between opposing factions within the Department. Clearly, all three points of view played a vital role in the decision-making process.

The outcome, far from being predetermined, was shaped by the concepts, tools, and data familiar to the positions and professions involved. The geologists in the Survey favored the familiar test that they felt competent to administer. The lawyers of the Minerals Branch opposed that position as a misreading of the 1920 Act and

95. Interestingly, the Deputy Solicitor, unlike the Director of the Office of Policy Analysis, saw the Geological Survey as playing a relatively insignificant role in the debate. The Deputy Solicitor attributed to the Geological Survey the same reluctance to make policy recommendations that the Director of Policy Analysis attributed to the BLM. The Deputy Solicitor generally attached less significance to the staff-level activities than did other actors in the debate. *Id.* at 4-5. These differing perceptions of the debate underscore the importance of attending to the variegations of the bureaucracy in attempting to reform it.

96. 41 Fed. Reg. 18845, 18847 (May 6 and 7, 1976) (codified in 43 C.F.R. 3520).

97. 43 C.F.R. §3520.1-1 (1977).

98. 41 Fed. Reg. 18845, 18847 (May 6 and 7, 1976) (codified in 43 C.F.R. 3520).

rejected the social-balancing test with which the economists in the Office of Policy Analysis were most professionally comfortable. Substantively, the array of positions spanned the gamut from least to most protective of the environment. However, "for" or "against" the environment is inadequate as an explanation for the motivations of participating players; a rich variety of groups and concerns shared in the debate. It is this reality that calls into question the simplistic good-guys and bad-guys analysis inherent in much of the external approach to administrative reform.

THE MINERAL-LEASING MARKETABILITY TEST IN A PUBLIC POLICY FORUM: DEBATE WITHIN AND DEBATE WITHOUT

In general, the debate over the definition of commercial quantities and valuable deposits was too complex and legalistic to become a focus of popular concern. Nevertheless, the issues involved were not aired solely within the Department of the Interior. Agency constituencies and their representatives in Congress constituted a concerned and frequently vocal adjunct to the internal debate. Internal reformers invoked the influence and needs of their external counterparts. Thus, while the external reform model is inadequate to describe the reform of the discovery test, so too is the internal model.

In the particular instance of NEPA and its impact on noncompetitive mineral leasing, the positions within the Interior Department were shaped and challenged by a number of outside concerns. These included the mining industry, environmental groups, and the Carter Administration, which assumed office in 1977 with an explicitly cultivated proenvironment image.

The mining industry had operated for many years under the Department's traditional workability test. It was to be expected that industry would challenge the Department's switch to a marketability standard that included the costs of complying with a lease. When the new regulations were proposed in January, 1976, Atlantic Richfield Company offered the general comment characteristic of the mining industry reaction: "The imposition of a standard established under the Mining Law of 1872, which deals with locatable rather than leasable minerals, to a definition of 'commercial quantities' under the 1920 Mineral Leasing Act, is ill advised."[99]

Industry challenge to the commercial-quantities regulations con-

99. Letter from H. E. Bond, Atlantic Richfield Co., to Director, U.S. Bureau of Land Management, Re/Notice of Proposed Rulemaking Concerning Prospecting Permittees (March 10, 1976).

centrated less on the legal soundness of the marketability test than on its retroactive application to deposits for which leases had not yet been issued but which had been certified as valuable under the old workability test. About one-half of the pending applications for non-competitive phosphate leases (including those of Kerr-McGee and U.S. Gypsum) fell into this interim category as did approximately one-third of the pending applications for coal.[100] Industry objections to retroactive application thus constituted a significant threat to the scope and effectiveness of the 1976 regulations.

In one of the first cases heard on this issue, Kerr-McGee Chemical Corporation filed suit to force the Department to issue a lease for valuable deposits of phosphates discovered in Florida. The district court in 1976 issued a writ of mandamus requiring the Secretary to issue the Osceola phosphate leases. This order was based on the undisputed fact that the U.S. Geological Survey had certified that a valuable deposit had been discovered. The district court noted that the Department had delayed seven years in processing the lease and did not find convincing the Department's plea that it was in the process of preparing new regulations on the issue. The Court of Appeals reversed, noting that "ongoing administrative proceedings before the Secretary of the Interior were aborted" by the district court order.[101]

Uncertainty about the implications of this oblique support for the new policy was resolved in two subsequent cases. The Global Exploration and Development Corporation brought an action against the Secretary[102] in a factual situation almost identical to the Kerr-McGee case: plaintiff sought to compel issuance of phosphate leases for which they had applied in 1971 and 1972. However, because the U.S. Geological Survey had not certified the discovery of a valuable deposit, the Corporation's position was weaker than that of Kerr-McGee. Nevertheless, the court refused to order issuance of the leases and gave full support to the view of the moderates:

> While NEPA does not grant the Secretary of the Interior discretion in issuing leases once the Secretary has determined that valuable deposits of phosphate exist within the lands for which the leases are sought, it does command the Secretary to consider NEPA in making a determination of the existence of valuable deposits.

100. Personal communication with Assistant Solicitor of the Department of the Interior, Robert Uram, February 1978.

101. Kerr-McGee Chemical Corp. v. Kleppe, et al., No. 76-608 (D.D.C. 1976), *rev'd. per curiam sub nom.* Kerr-McGee Chemical Corp. v. Andrus, Nos. 77-1478 and 77-1483 (D.C.C. 1978), *cert. denied,* slip op. (U.S. Sup. Ct. October 2, 1978).

102. Global Exploration and Development Corporation v. Andrus, *mem.,* No. 78-0642 (D.C. Cir. August 14, 1978).

> The Secretary is bound to interpret the command of 30 U.S.C. 187 to set lease terms "... for the protection of the interest of the United States and ... for the safeguarding of the public welfare" in the light of NEPA's stated goals and procedures.[103]

The courts were not more receptive to the environmentalists' position in the debate than they were to industry's view. The Global Exploration case, in fact, virtually reiterated an earlier holding in a case brought by the Natural Resources Defense Council (NRDC). In *Natural Resources Defense Council, In., v. Berklund*[104] plaintiffs sought, among other things, a declaratory judgment that the Secretary has discretion, under the Mineral Leasing Act and section 102(1) of NEPA, to reject preference-right lease applications on environmental grounds. Adopting much of the reasoning of the internal debate on the matter, the court rejected NRDC's arguments, concluding: "Given the unequivocal statutory language and the supporting legislative history, as well as 58 years of consistent agency statutory interpretation and application, the court finds that 'shall' does in fact mean 'shall' and does not permit the Secretary to reject preference-right coal leases on purely environmental grounds."[105] Thus, the environmentalists' position in the debate was not convincing to internal decision-makers or the courts. NRDC has, however, pursued other litigation that challenges, albeit indirectly, the new regulations. In *NRDC v. Hughes,*[106] challenging the first coal-leasing programmatic impact statement released in 1975, NRDC succeeded in having restrictions imposed on preference-right leasing even *after* the 1976 regulations were promulgated. The implication of this outcome was that NRDC, beyond the improved environmental protection possibilities of the marketability test, opposed preference-right leasing in the absence of an acceptable EIS on the federal coal-leasing program.

NRDC and the Interior Department negotiated a settlement early in 1978 to allow the Department to process, but not award, up to 20 of the nearly 190 pending coal-lease applications.[107] Clearly, this development hampers the free operation of the commercial-quantities regulations. However, the Hughes suit was directed at the coal-leasing program as a whole and not at the inherent soundness of the marketability test. In addition, the suit does not affect noncompetitive leasing of other minerals such as phosphate.

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103. *Id.* at 8.
104. Natural Resources Defense Council v. Berklund, 458 F. Supp. 925 (D.D.C. 1978).
105. *Id.*, at 935.
106. Natural Resources Defense Council v. Hughes, 437 F. Supp. 981 (D.D.C. 1977).
107. PUB. LAND NEWS, March 9, 1978, at 1-2.

It is perhaps surprising that environmental groups, to the extent that they were involved, rejected social balancing and appeared to some extent to embrace marketability. Nevertheless, this appears to be the case. The efforts of the Director of the Office of Policy Analysis to involve the NRDC on his side of the debate failed. He attributes his lack of success in building support for what was regarded within the Department as an extreme environmentalist view to problems of communication between lawyers and economists. Both Mineral Branch and NRDC attorneys were, in his view, equally comfortable with the idea that appropriate lease stipulations properly enforced would result in environmental protection and equally ill-equipped to respond positively to the concept of social balancing and the lack of clear criteria which they believed that implies. The Director summarized his problem in communicating with both groups of lawyers as follows: "It wasn't that I was a flaming environmentalist, it was that I was a goddamn economist." Moreover, the social-balancing approach—although in this instance arguably the "most environmentally oriented"—is not always that way. Many environmentalists do not accept the fundamental premise of social balancing that economic profit is commensurate with environmental damage for purposes of balancing. The balancing test would condone environmental damage if the value of the deposit were high enough or the worth of the amenities preserved "low" enough. Both the process and the result were intuitively distasteful to advocates who held that environmental quality is unique or priceless and hence not subject to quantification or comparative manipulation within an analytic framework.[108]

Beyond industry and environmentalists, the 1976 regulations have survived the scrutiny of yet another set of critics—those who arrived with the Carter Administration. The new team took office in January, 1977, just a year after the Ford Administration had announced a new coal leasing of which the commercial-quantities regulations were an important element.

President Carter, in his May, 1977, environmental message, cast the critical eye of the social-balancing advocate and asked the Department to review the legal grounds on which the commercial-quantities regulations had been built. Specifically, the new Administration wanted to take another look at the possibility that the Secretary might indeed have the discretion to deny environmentally unacceptable preference-right lease applications. The Solicitor's Office retracted the debate yet another time but could find no

108. *See* note 87 *supra.*

reason to alter the previous findings. It was their conclusion that, after

> carefully reassessing the basis for granting or denying preference right leases . . . , no authority exists to change the interpretation set forth in current departmental regulations. In brief, the Secretary has a duty to issue a lease to a qualified applicant, but such duty does not arise until the Secretary is satisfied that all laws and regulations, including NEPA, have been met. . . .[109]

CONCLUSIONS

NEPA and the EIS requirement comprise a critical part of the environmental movement of the 1960s and 1970s. The history of that movement suggests a number of reasons why the external model of administrative reform would dominate implementation of the statute: residue of confrontation tactics and distrust of government agencies stemming from the Vietnam War protests; general post-Watergate cynicism; and activism in the courts resulting from reduced deference to agency discretion, less arduous standing to sue requirments, and the proliferation of environmental statutes to interpret. Elaboration of NEPA constitutes one of the most sustained and frequently analyzed administrative reform efforts in our nation's history.

After nearly a decade of litigation, however, a reassessment of the external model—its tactical and analytical utility—seems appropriate. Environmental problems are increasingly recognized as too complex to be caused by mere administrative failure or to be resolved by even the most efficacious bureaucracy. The costs of confrontation and litigation are high both in dollar terms and in terms of effort that could be more constructively employed. These weaknesses in the operation of the external model, as a guide to analysis and action, are becoming increasingly apparent. Awareness has perhaps been hastened by the recent appointment of numerous prominent environmental activists to high government positions. In the present case, when the outsiders came inside, they could find no reason to alter the conclusions of the previous insiders' reforms. NEPA emerges from this analysis as a useful tool and resource for progressive and environmentally and politically sensitive Interior officials rather than as a necessary prod or bludgeon.

There is a lesson to be learned from changing interpretations of the Mineral Leasing Act under NEPA. Progress in environmental pro-

109. Natural Resources Defense Council v. Berklund, 458 F. Supp. 925 (quotation from Defendants' Reply to Plaintiffs Response) (D.D.C. 1978).

tection was not made by focusing attention on writing and reviewing impact statements. Meaningful reform was achieved by altering the underlying premises of decisions. This kind of reform cannot result from efforts which begin with the assumption that executive agencies lack diversity, sensitivity, and insight. Agencies contain interest groups and interactions of their own, and the range of views present on the inside can be fully reflective of that without.[110] This aspect of bureaucratic reality has been insufficiently treated in academic literature on the subject and inadequately considered in the tactics and rhetoric of the environmental movement. There are limits to how far a study of the Mineral Leasing Act of 1920 can be generalized. However, the present inquiry suggests that both students and would-be reformers of the administrative process have much to gain from closer attention to and fuller appreciation of the creative potential of public agencies.

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