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COAL SLURRY PIPELINES—IN THE PUBLIC INTEREST

C. HOWARD HARDESTY*
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Authors' note: On September 27, 1983, the U.S. House of Representatives by a vote of 235 to 182 defeated H.R. 1010, bringing to an end efforts of coal slurry pipeline supporters to obtain enabling legislation in 1983. This article, written by proponents of granting the federal right of eminent domain for coal pipelines, hopefully will, in a partisan, but dispassionate way, discuss the issues involved.

I. INTRODUCTION

It is an article of faith that energy independence is in the best interest of this country. Our experience with OPEC's price rises and boycott in the 1970s stiffened this resolve. The question which remains, however, is whether this goal is merely quixotic, merely another empty political talisman, or whether it has a genuine chance for success.

Assuming that the goal is not only desirable but also realistic, this nation's best hope for achieving energy independence lies with increased use of its abundant coal reserves. According to a recent study by the Office of Technology Assessment of the United States Congress, America's identified coal deposits are sufficient to meet 100% of our current domestic energy needs for over 500 years.1 Moreover, many forecasters project substantial increases in United States coal production, from 825 million tons in 1980 to as much as 1,486 million tons in 1995, an 80% increase.2 Current market conditions and reasonable prudence dictate a moderation of these estimates to a 1995 production level approximating 1,200 million tons.

Congress sought to play an important role in attaining energy independence. The Powerplant and Industrial Fuel Act of 19783 encouraged greater usage of coal by prohibiting existing4 and future5 electric power plants from continuing to use petroleum or natural gas, except under certain

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1 OFFICE OF TECHNOLOGY ASSESSMENT, CONGRESS OF THE UNITED STATES, THE DIRECT USE OF COAL (1979). See also Lowenstein, Unnatural Resource, Wall St. J., Sept. 23, 1983, at 1, col. 6; "[T]he U.S. has 237 billion tons of coal reserves—enough to last 300 years at the current rate of consumption. The energy content of those reserves is equivalent to six times that of Saudi Arabia's oil reserves."

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conditions. Similarly, the ICC was admonished by Congress in the Staggers Rail Act of 1980 to "include the encouragement and promotion of the transportation of coal by rail in accordance with the objective of energy independence."

There are several reasons why coal is not increasing its marketing goals—slack economy, air pollution concerns and increasing transportation costs. Notwithstanding the national need to increase consumption of our abundant and lowest cost energy source, coal is not being utilized as fully as is desirable, or possible.

This article addresses the most important aspect of the nation's failure to turn to coal and energy independence—the cost of transporting coal. The cost is, too frequently, prohibitively high, thereby effectively negating this country's incentive to use coal. The coal consumer is interested only in comparing the delivered costs of competing sources of energy, whatever be its form.

II. THE TECHNOLOGY AND THE COST

In some instances, coal transportation costs can be minimized, where, for instance, a power plant is located at the coal mine. More frequently, however, coal must be transported considerable distances. At present, the alternative modes of transporting coal include barge, truck, pipeline or rail. Rail transportation is the predominant mode.

According to a recent Energy Information Administration report, railroads carried 554 million tons of coal in 1981, or approximately 67.7% of the transported coal. Moreover, railroads are frequently the only method of transporting coal. In the Western United States, for instance, it is estimated that 85% of the coal produced must use the rails for transportation. Thus, "captive shippers"—those who have no existing alternative—are forced to utilize the railroads to move their coal. The result is that more than 50% of all coal produced has no effective competitive means by which to move to

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8 Coal transportation costs often constitute 50% of the cost of the coal, and may even comprise 75%. See ACCT, supra note 2, at 3.
10 Id. at 3.
11 ACCT, supra note 2, at 3. See also Comment, An Analysis of Technical and Legal Issues Raised by the Development of Coal Slurry Pipelines, 13 Hous. L. Rev. 528, 530 (1976).
potential customers. But an attractive, workable and in some instances less costly alternative already exists—coal slurry pipelines.

Simply stated, coal slurry operations begin by taking coal, crushing and grinding it into proper particle size at the slurry preparation plant and mixing it with water until the coal is approximately 50% of the mixture by weight. The slurry is then pumped through a buried steel pipeline to an electric generating plant or transshipment terminal. When it arrives, the slurry is dewatered and the water treated. Often the water can be used by the power plant in its boilers, steam generators and in cooling operations. Additionally, technology exists on a commercial basis which permits the direct burning of coal slurry, thus obviating much of the dewatering process.

In order to be cost effective, slurry pipelines generally must traverse a considerable distance. In so doing they will be forced to cross railroad tracks or property owned by railroads. Much of this property and the attendant rights were ceded to the railroads in the mid-nineteenth century when this country was attempting to realize its Manifest Destiny to move to the West. The result is that the railroads presently are in a dominant position with respect to choosing whom or what shall be granted easements, licenses, or the right to cross their property. And most assuredly, they have mightily and effectively resisted any efforts would-be competitors might make at securing such licenses, for this would force the railroads to compete for the business of shipping coal.

Potential coal slurry pipelines have actively sought in good faith to secure these rights of passage. However, having encountered one roadblock after another, at both the bargaining table and in the courts, beginning twenty years ago they turned to state legislatures and to Congress to seek what is their only effective remaining redress—eminent domain authority.

Notwithstanding these legislative efforts, the slurry pipelines continue for the most part to be effectively stymied. As early as 1962, President John F. Kennedy, recognizing the railroads' antipathy to coal slurry pipelines,
voiced support for federal eminent domain authority for the coal pipelines. Specifically, he stated:

Surely a continent so rich in minerals, so blessed with water, and a society so replete with engineers and scientists can make and must make the best possible use of the bounties which nature and God have given us, public and private, Federal and local, cooperative and corporate. We cannot prevent other people in this country from developing their resources. We look forward to the day when energy will flow where it is needed. We cannot permit railroads to prevent coal slurry pipelines from conveying the resources of our mines.¹⁵

Similar bills were also introduced in various state legislatures at approximately the same time, which would enable slurry pipelines to use state eminent domain powers. In virtually every instance, however, the railroads have successfully blocked passage of the legislation year after year.¹⁶ Even where slurry pipelines have emerged the victors, such as in West Virginia, their victory has been largely a Pyrrhic one. That is, the legislation enacted by the West Virginia legislature¹⁷ included provisions which were difficult in application.¹⁸

III. ISSUES AND LEGISLATIVE RESPONSE

A. Eminent Domain

The legal issues raised in the continuing debate over coal slurry pipeline legislation are not novel. Resolution of them is complicated, nevertheless. In fact, these issues have provoked such an emotional response that certain parties, such as the United Mine Workers of America, have been both advocates and opponents of coal slurry pipelines.¹⁹ The issues necessarily include legal, philosophical and "policy" questions, and the competing interests have joined the issue squarely at virtually every turn.

¹⁸ In West Virginia, the right of eminent domain is encumbered by requirements that the pipeline company engage in some intrastate activity within West Virginia if there is "any reasonable demand therefor," and that the applicant for a certificate of public convenience and necessity, a prerequisite to exercising the right of eminent domain, establish "that the patents . . . shall be . . . equally available . . . upon fair and reasonable terms, to other bona fide applicants seeking a certificate of public convenience and necessity" in order to prevent use of coal pipelines which would in any way "result in any appreciable economic detriment to others." W. VA. CODE § 54-1-2(1) (1981).
¹⁹ Compare United Mine Workers' J. 3 (Jan. 15, 1962), with discussion infra text accompanying notes 55-57.
1. Federal eminent domain—the need

Foremost among these issues is that of eminent domain. Under both the 1983 Senate and House bills (S. 267 and H.R. 1010), coal slurry pipelines would have been granted federal eminent domain authority. Eminent domain authority permits the conversion of private property to public use, for which just compensation must be made. Although that power is often reserved by the government itself, it is now well recognized that the government can delegate this authority to privately owned companies whose activities enhance the public welfare.

For instance, in 1947, Congress amended the Natural Gas Act of 1938 to expressly give eminent domain authority to certificated natural gas pipelines. Similarly, crude oil pipelines were granted this authority during World War II when Congress enacted the Cole Act. Licensees under the Federal Water Power Act have also been given eminent domain authority for the purpose of construction of dams or reservoirs.

Ironically, one of the principal beneficiaries of eminent domain authority has been the railroads themselves. Yet, the railroads have adamantly opposed the granting of such authority to coal pipelines, arguing that such authority should only be granted sparingly and that coal pipelines would not truly be in the public interest. As further support for their position, the railroads contend that such authority is unnecessary given the coal pipelines' legal victories in the United States Courts of Appeals for the Eighth and Tenth Circuits.

In those cases, the federal appellate courts affirmed a number of federal district court rulings, deciding that a proposed slurry pipeline owned by Energy Transportation Systems, Inc. (ETSI) had obtained valid easements under Union Pacific Railroad's tracks for the purpose of constructing a coal slurry pipeline.

While these results would seem, at first blush, to support the rails' contention, a close examination reveals that these cases depend entirely upon an

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20 See Boom Co. v. Patterson, 98 U.S. 403, 406 (1878); 1 Nichols on Eminent Domain § 1.11 (3d ed. 1980).
26 The right of eminent domain was granted to the railroads by state legislatures in order to facilitate railroad construction. Comment, Coal Slurry Pipelines and Railroad Crossings: Court Decisions Favor the Pipeline Sponsors, 18 Hous. L. Rev. 1075, 1081 (1981).
interpretation of a particular congressional land grant to the railroads, which
the courts interpreted as giving the rails less than a fee simple absolute. Given this particular rationale for the courts' decisions, it is equally clear that a similar interpretation would not obtain with respect to rail property east of the Mississippi River, which is generally held in fee simple. Thus, the railroads could block the pipelines' attempts to obtain easements in other areas. Therefore, similar litigation would be fruitless in the East, as well as dilatory and expensive.

2. State eminent domain — the shortcomings

It has been suggested that federal eminent domain power is not required and that state eminent domain might be sufficient. In fact, several states have already granted eminent domain authority to coal pipelines. However, these state statutes are few in number and are so circumscribed as to be useless to coal pipelines.

For example, in 1977 the Oklahoma Legislature enacted legislation creating the right of eminent domain for coal pipelines. This law also established an elaborate licensing process for eminent domain authority under the aegis of the Oklahoma Corporation Commission. However, this licensing process has been used by the railroads to hinder the construction of the proposed ETSI pipeline for several years. In addition, licensing procedural delays have led to inflated construction costs. Such obstacles are inherent in a system which depends upon piecemeal state legislation.

When President Reagan determined that his views on federalism precluded his support of federal eminent domain authority for coal pipelines provided in the proposed 1981 slurry pipeline bills, he also expressed his support for the general proposition of coal slurry and promised to work for passage of state eminent domain statutes. Notwithstanding this Presidential assistance, not a single additional state coal slurry eminent domain statute has been enacted. Additionally, the experience of natural gas pipelines indicates there may be legal and constitutional obstacles to a state granting such authority where the pipeline merely goes through the state in order to serve mines and coal users in other states.

[32] Mr. Reagan's decision was communicated in a memorandum from the President to the Secretary of the Interior entitled "Administration Position on Legislation on Coal Slurry Pipelines" (Nov. 16, 1981).
[33] See ACCT, supra note 2, at 4.
[34] For example, where a pipeline simply passes through a state and does not supply coal to
3. Full federal eminent domain—the solution

If, then, federal eminent domain is the *sine qua non*, it has been suggested, in the interest of federalism, that a limited federal eminent domain option might be preferable. Such a measure was introduced in 1982 as an amendment to H.R. 4230. It would have provided for federal eminent domain authority for coal pipelines across “railroad rights-of-way” or “railroad properties.”

In fact, however, such an accommodation would also be unworkable. Considerable legal uncertainty will be created by limiting the exercise of the eminent domain authority to “railroad rights-of-way” or “railroad property.” A review of Federal statutes reveals a variety of definitions for the terms “railroad,” “railroad property,” “common carrier” and the like. To be complete, any definition of “railroad property” would have to include the amorphous concept of “control,” so that property held by a person controlled by a railroad would be covered. Given the inherent uncertainties in such definitions, determinations of whether particular parcels of property are subject to the exercise of eminent domain authority will be the subject of endless litigation. The opportunity for such litigation will hinder the development of interstate coal pipelines.

While President Reagan’s desire to return to the states many of the powers assumed by the federal government beginning in the 1930s may be laudable, the refusal to support federal legislation for coal pipelines because of “states’ rights” is not. The legislation would have granted federal eminent domain authority for *interstate* pipelines and the U.S. Constitution specifically grants the federal government the power to regulate commerce “among the several states.” Thus, the need for full federal eminent domain authority is paramount if coal slurry pipelines are to be built.

B. Water Rights

1. State control under 1983 legislation

An equally important, and hotly contested issue is that of water rights. As noted above, present technology dictates that coal slurry pipelines will transport a mixture made up of 50% coal and 50% water, by weight. Despite the railroads’ protestations to the contrary, large volumes of water will not return to the

utilities serving that state, the pipeline may be unable to satisfy the requisite showing of in-state benefits.


U.S. CONST. art. I, § 8, cl. 3.
be required. To put this matter in perspective, a coal slurry pipeline will use only one-fifth to one-seventh of the amount of water required for a coal fired
electric generating facility and approximately 40% of the amount of water
required by a coal gasification plant. Senator Malcolm Wallop noted that a
power plant burning the same amount of coal consumes up to seven times as
much water for cooling as a pipeline would use to transport the slurry hun-
dreds of miles.38

The water issue is of particular concern in the arid West where water is
at a premium and state water rights are jealously guarded. Some western
states, for instance, have enacted legislation expressly prohibiting the use of
“their” water for coal slurry pipelines.39

In order to allay such concerns, both the 1983 Senate and House bills con-
tained provisions designed to guarantee and enhance state control of water
rights.40 Amendments to the 1983 Senate bill, introduced by Senator Wallop
in the proposed 1982 bill and adopted in Committee in 1983,41 would have
assured that any water used by interstate coal pipelines be acquired in com-
pliance with state water laws.42 Moreover, the Amendment specifically pro-
hibited the use of the bill’s eminent domain authority to acquire water or the
right to water.43 The Wallop amendments also authorized states to enforce
terms and conditions on the use of water in interstate coal pipelines, even
after the water moves in interstate commerce.44 The Wallop Amendments
further assured the primacy of state water law by requiring that applicants
for federal eminent domain authority first obtain state authorization for the
water to be used in the proposed pipeline.45

Another provision of the 1983 Senate bill contained an express grant to
the states of the congressional power to regulate the terms and conditions of
permits for the use of water for a certificated coal pipeline, notwithstanding
its use in interstate commerce.46 The bill also excluded any effect upon exist-
ing state law or regulation, or any interstate compact, “governing the appro-
priation, use or diversion of water.”47

Thus, the 1983 legislation made every effort to insure the primacy of a

38 ACCT, supra note 2, at 5.
40 See H.R. 1010, supra note 36; S. 267, supra note 36. See also ACCT, supra note 2, at 5.
41 See S. REP. No. 61, 98th Cong., 1st Sess. (1983). See also ACCT, supra note 2, at 5.
42 Section 5(a) of S. 267 and section 206(a) of H.R. 1010, supra note 36.
43 Section 4(e)(a) of S. 267 and section 207(b) of H.R. 1010, supra note 36.
44 This particular amendment was adopted by the Senate Committee on Energy and Natural
Resources which approved S. 267. See also ACCT, supra note 2, at 5.
45 Section 5(d) of S. 267, supra note 36.
46 Section 5(b) of S. 267, supra note 36.
47 Section 5(c)(1) of S. 267, supra note 36.
state's water rights. The Senate Committee Report further underscored Senator Wallop's intentions.

These amendments were accepted by the Committee during its markup of the bill and I am committed that these amendments remain as part of the bill. Generally they insure that:

Whether a pipeline uses eminent domain or not, its use of water falls under the laws of the State where water is sought to be acquired. Nothing in the law can be interpreted as granting a new right for the Federal Government or its agents to use water. Federal reserved water cannot be used in a pipeline. Nothing in the law will alter any state water law or interstate compact.

I offered one additional amendment to the bill which was also accepted by the Committee. This amendment, in the nature of a finding, is a crystal clear Congressional statement that water is to be considered unique because it is necessary to develop the other resources within the States. In recognition of this status, a State can place terms or conditions upon the diversion of water which will restrict or limit the export of water for coal slurry from within the State. This Congressional statement recognizes a State's right to do this under the Commerce Clause of the U.S. Constitution notwithstanding any adverse impact such a law would have on the transaction of interstate commerce.

This clear finding is dramatic evidence that Congress acknowledges the importance of water and in view of this, Congress clearly recognizes that it is in the public interest to vest State officials and legislatures with the power to decide what is the best use for this critical resource.\(^4\)

2. Commerce clause problems

These particular provisions of S. 267, and the analogous provisions of H.R. 1010, raise an important Commerce Clause question. This issue, which is largely a pure "legal" issue, is important because of conflicting interpretations of *Sporhase v. Nebraska,*\(^49\) and the effect that decision will have on the legislative attempt to insure the primacy of state water rights. Specifically, the legal issue might be framed as whether the express federal legislative provisions regarding the states' control over their own water rights would effectively immunize the state water laws from Commerce Clause attacks.

The Commerce Clause of the United States Constitution provides, in pertinent part, as follows: "The Congress shall have Power . . . To regulate Commerce with foreign Nations, and among the several States . . ."\(^50\) While the Constitution fails to expressly provide that states may also regulate interstate commerce, it is now beyond question that state regulation of interstate commerce will be sanctioned, within limits:

\(^{50}\) 102 S. Ct. 3456 (1982).
\(^{50}\) U.S. CONST. art. I, § 8, cl. 3.
Where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefit. If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities.\textsuperscript{51}

In \textit{Sporhase}, the Supreme Court decided, \textit{inter alia}, that groundwater was an article of interstate commerce. It further ruled that a Nebraska statute prohibiting the interstate transportation of groundwater into any state that did not provide for reciprocal export into Nebraska was violative of the Commerce Clause.

The \textit{Sporhase} decision has prompted some to conclude that coal slurry legislation provisions which prohibit the use of state water for coal pipelines absent express state approval would be unavailing. Their conclusion is based on feelings that the legislation would not effectively shield state water laws from constitutional attack. The effect of such a ruling would, of course, be that state water rights would have been overridden. It would render meaningless both the Wallop Amendments and the language in H.R. 1010 designed to insure the primacy of state water rights. This view continues to be championed by a number of groups,\textsuperscript{52} including the railroads. Upon reflection, however, it should be clear that those advocating this reading of \textit{Sporhase} have ignored or glossed over the Court's full ruling. An important part of the \textit{Sporhase} ruling was that Congress could grant to states the authority to impose otherwise impermissible burdens on interstate commerce so long as the Congressional grant was affirmative and express: "In the instances in which we have found such consent, [to state laws imposing otherwise unreasonable burdens on interstate commerce] Congress' "'intent and policy' to sustain state legislation from attack under the Commerce Clause" was "'expressly stated.' "\textsuperscript{53}

The constitutional infirmity in \textit{Sporhase} is that while Congress had enacted statutes \textit{generally deferring} to state water rights, there was no \textit{express and explicit} federal statutory provisions which would remove federal constitutional constraints from those state laws.

When viewed in this light, it should be clear that the Wallop language of S. 267 and the analogous provisions in H.R. 1010 constitute the required ex-
press Congressional approval to insulate the state water laws from constitutional attack. Thus, the state laws' would be deemed constitutionally valid.

This reading of Sporhase and its impact on the proposed Wallop language is further substantiated by Carol E. Dinkins, Assistant Attorney General of the Lands and Natural Resources Division of the Department of Justice. In testimony before the Water Resources Subcommittee of the Senate Environment and Public Works Committee on September 15, 1982, Ms. Dinkins stated that the S. 1844 state water primacy language, as amended, together with its legislative history was an effective delegation to the states of Congressional power over interstate coal slurry water transportation. This particular language of S. 1844 was also contained in S. 267.54

Ms. Dinkins also testified on April 19, 1983, before the House of Public Works Surface Transportation Subcommittee, that the analogous language in H.R. 1010 “appears ably to safeguard the primacy of state water laws.” She then stated: “[W]e believe that the courts will perceive and respect Congress’ considered judgment on this issue. We also believe that the proposal is prudent in offering a narrowly-drawn legislative response to Sporhase.”

C. Economic Impact

1. Transportation and labor

The issue which provokes the most visceral emotional response is undeniably that of perceived economic effects of coal slurry pipeline legislation. Opponents of the legislation contend that passage of the bill would effectively cripple their already ailing industry. Specifically, the railroads and the United Mine Workers aver that enactment of coal slurry pipeline legislation will cause a massive loss of jobs, a $700 million decline in revenues, and diminished profits and sales in the industry.55 Moreover, they assert that these losses in the coal hauling sector will require railroads to compensate for their losses in coal revenues by increasing rates in other sectors of their commodity haulage business.56

While these arguments undeniably have emotional appeal, they do not survive critical scrutiny. First, as noted above, there is unanimity of opinion that coal production over the next ten years will increase substantially, as will the need to transport this increased production to market.57

Second, even if the legislation were enacted at this time, coal slurry

54 Section 5 of S. 267, supra note 36.
56 Id.
57 ENERGY INFORMATION ADMINISTRATION, supra note 9.
pipelines would carry only a portion of that increase. It is highly unlikely that all presently planned coal slurry pipelines could be built and in operation by 1995. Even if they were functional, however, they would carry less than half of the projected increase in coal production during this period. Further, a pipeline could not be engineered, permitted and constructed in less than five years, so the railroads would not be adversely affected at all during that hiatus. Unfortunately, with the 1983 loss in the House, these time projections will be further delayed by years.

Third, the U.S. railroads will actually increase the amount of coal they will haul between now and 1995. The May 6, 1983 report by the Republican Study Committee concluded:

Since railroads carried 540 million tons of coal in 1982, railroad coal traffic will grow at least 35% over the next twelve years. It is more likely that railroad coal transportation will increase 44% by 1995. Competition from coal slurry pipelines will not cost railroad jobs. Instead, it will benefit the consumer, the coal industry, and hundreds of thousands of construction workers who would be employed building the pipelines.

Fourth, the concern that shippers of other bulk commodities—grain and coal for which pipeline transportation is not available—would face sharply higher rates, deterioration of service, or both, if railroads sought to compensate revenue losses resulting from their putative diversion of coal traffic, is also misplaced. Anyone with a passing familiarity with rail rates knows that railroads charge every type of shipper the maximum tariff they can extract. As corporations, railroads have a duty to their shareholders to maximize their profits, which duty they pursue zealously. Moreover, the chorus of complaints from American agriculture and industry decrying the extortionate rates and deterioration or elimination of rail service exists in the absence of coal slurry transportation. Hence, the idea that construction of coal slurry pipelines would create some new and previously unknown impetus for railroads to charge agricultural or industrial shippers the highest possible rates is simply unsupportable. The problems of prohibitively high rates and quality of service exist independently of the coal slurry issue and require redress by Congress or the ICC.

It would be inequitable to hold the coal slurry pipelines hostage to a problem they have not created and will not exacerbate until such time as Congress or the ICC addresses the problem.

Fifth, the projected "job loss" will not materialize. In fact, this legislation should be a boon to employment. The Department of Labor's Bureau of Labor Statistics projects that construction of seven of the proposed new coal slurry pipelines would generate over 500,000 jobs. Of these, 50,000 would be in the

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58 ACCT, supra note 2, at 4.
59 Id.
construction sector, 100,000 in the construction support sector and the remainder in the manufacturing of such items as valves, pumps, steel and heavy equipment.  

The railroads' projections of particularly drastic effects on rail employment are not convincing. If all currently proposed coal pipelines were built by 1995, which is highly unlikely, the pipelines could carry only about 25% of the projected increase in coal production between 1980 and 1995. The rest of this increased production would be carried by rail, truck and barge. Railroad employment is projected to increase by 13,000 jobs for each 100 million ton annual increase in coal production. Thus, by 1995 more than 40,000 new railroad jobs would be created—even with coal pipelines.

Lest one think that this report, issued by the Republican Study Committee, merely represents "management's" perspective on this issue, it is useful to also examine the expressed views of the AFL-CIO which echo these beliefs. On April 19, 1983, in testimony before the Subcommittee on Service Transportation of the House Committee on Public Works and Transportation, Robert A. Georgine, President of the Building and Construction Trades Department, AFL-CIO, expressed his strong support for H.R. 1010, the 1983 House of Representatives' proposed coal slurry bill. Mr. Georgine expressed the same strong support for S. 267 in testimony before the Senate Energy Committee on March 14, 1983.

Thus, it is clear that the railroads' stated bases for opposing this legislation are not supportable and merely constitute a guise for their actual concern: protection of their coal monopoly. In fact, as stated by Mr. Georgine, "This legislation is pro-consumer, anti-monopoly, anti-pollution and pro-free market."

2. Coal exports

One additional point seems relevant for purposes of a discussion of the economic effects of coal slurry pipelines. Specifically, coal slurry pipelines will clearly have a salutary effect on exports of United States coal.

Many potential customers of United States coal, in Europe and the Pacific Rim, have minimized their purchase of otherwise attractive U.S. coal supplies due to our high inland transportation costs. Consequently, the domestic coal export market has suffered. Competition from coal slurry pipelines will help reduce coal transportation costs and thereby make American coal more competitive on the world market. The Soviets, Chinese, and Canadians, for example, are either developing or evaluating coal pipelines to help deliver their coal to market. These foreign proposed pipe-

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61 Id.
62 Id.
63 Id.
lines anticipate using American-developed technology. The Soviet pipelines may be built with U.S. technology and assistance, which may have the unintended side effect of assisting the Soviets in taking over foreign customers, including Europeans, for U.S. coal. The detrimental effects on American jobs, the balance of payments and national security are self-evident.

While the railroads may not reap all the profits and jobs resulting from the increased coal production, they will receive more than enough to remain healthy, without a loss of existing jobs or revenues. Both railroad revenues and employment will increase, even with coal slurry pipeline legislation.

D. Environmental Concerns

Some have opposed the legislation on an environmental basis, citing concerns regarding water, air, or hazardous waste pollution. Before getting into the specifics of each environmental objection, the obvious should be noted—coal slurry pipelines will be subject to all environmental laws. Failure to comply with these laws could result in administrative, civil or criminal sanctions, or some combination thereof.

Moreover, both the 1983 Senate and House bills contained explicit provisions designed to enhance environmental protection. S. 267 required the Secretary of Energy to make findings on the extent to which the proposed coal slurry pipeline would affect the environment prior to determining that construction of a pipeline system would be in the national interest. Similarly, H.R. 1010 directed the Secretary of Interior and the Interstate Commerce Commission to consider and make findings on the extent to which the proposed pipeline would affect the environment prior to issuing a certificate to the pipeline.

Further, both bills specified that construction of the pipeline in designated wilderness areas should not be permitted unless no reasonable alternative exists.

Finally, the railroads' arguments seem both ironic and hollow when one considers that the single operating coal slurry pipeline, the Black Mesa Pipeline, which has been an environmental success, is owned and operated by The Southern Pacific Railroad.

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63 Id. at 5-6.
64 Section 4(b)(5) of S. 267, supra note 36.
65 Section 208(b)(3)(D) of H.R. 1010, supra note 36.
66 Section 4(e)(4)(B) of S. 267 and Section 202(c) of H.R. 1010, supra note 36.
1. Clean Water Act

The need for water as the slurry medium raises not only questions about a state's use of its own waters but also a whole host of environmental concerns. Typically, the concern involves a fear of the damage to the nation's waters caused by disposal of the large volumes of polluted water. This fear emanates from a misunderstanding or ignorance of the environmental protections offered by the legislation.

As noted, both S. 267 and H.R. 1010 contained express provisions designed to guarantee that any water discharged by coal pipelines would be environmentally clean. For instance, an amendment to S. 267, adopted by the Committee, provided that the EPA Administrator had to review any coal pipeline applications to determine if the water discharged from the coal pipeline could comply with Clean Water Act standards. Thus, the coal pipelines would have been required to obtain an NPDES permit pursuant to the Clean Water Act prior to discharging the waters.

The NPDES permit includes specific provisions requiring that water discharged from a pipeline be treated pursuant to federal environmental regulations, which requires the use of best available technology (BAT) after July 1, 1984. In addition to the federal standards, pipelines would also be required to comply with any state water quality standards. Thus, the clean water environmental concern was adequately addressed. This was not mere speculation. Already, the ETSI project has obtained NPDES permits from both the Oklahoma Water Resources Board and the Arkansas Department of Pollution Control and Ecology.

2. Hazardous wastes

A further concern involves the issue of solid and hazardous waste disposal. This issue has arisen because an attorney for a group of protesters has written the Logan County Planning and Zoning Department of Colorado and others suggesting that coal slurry constitutes a solid waste.
which will exhibit characteristics of hazardous wastes and as such must be disposed of in accordance with Subtitle C of the Resource Conservation and Recovery Act and the implementing regulations.\textsuperscript{74} The perceived concern is unwarranted, however. Coal slurry cannot be characterized as a "hazardous waste" under RCRA and the implementing regulations unless it is first deemed a "solid waste."\textsuperscript{75}

RCRA regulations define a "solid waste" as "any garbage, refuse, sludge or any other waste material which is not excluded under [40 C.F.R.] § 261.4(a)."\textsuperscript{76} Clearly, coal slurry is not garbage, refuse or sludge. Thus, in order to be adjudged a "solid waste," it must be "any other waste material."

In order to be deemed "any other waste material," the key question is whether the coal slurry would be "discarded."\textsuperscript{77} Where, as here, however, the slurry would be burned at the receiving utility or be exported, it could not be deemed "discarded" and thus would not constitute a "solid waste" under RCRA. That being the case, it necessarily follows that the coal slurry would not be a "hazardous waste" under Subtitle C of RCRA or the implementing regulations.

3. NEPA

Section 102(2)(c) of the National Environmental Policy Act,\textsuperscript{78} requires the preparation of an environmental impact statement (EIS) for all federal actions significantly affecting the environment. Because the slurry pipelines would have been certificated or licensed by the federal government under either the House or Senate bill, an EIS would also have been required.

The Bureau of Land Management of the Department of Interior has already completed a two volume EIS for the proposed ETSI pipeline.\textsuperscript{79} The statement concluded that the pipeline would have no adverse impact on vegetation or wildlife. It further outlined that the "widest range of beneficial uses would be obtained by the use of Oahe," and that this alternative "would not affect the use of the environment by future generations."\textsuperscript{80}

4. Clean Air Act

Because the coal pipeline would be located underground, the air pollution

\textsuperscript{74} Letter from Robert N. Steinwurtzel to Logan County Planning & Zoning Department of Colorado (Nov. 19, 1982).
\textsuperscript{75} 42 U.S.C. § 6921 (1976).
\textsuperscript{76} 40 C.F.R. § 261.4(a) (1983) (emphasis added).
\textsuperscript{77} 40 C.F.R. § 261.2(a) (1983).
\textsuperscript{78} 40 C.F.R. § 4332 (1976).
\textsuperscript{79} Exhibit I, Testimony of Paul Doran, President ETSI Pipeline Project, before the House Public Works Committee, Subcommittee on Surface Transportation, H.R. 1010 (Apr. 13, 1983).
\textsuperscript{80} Id.
emanating from the transporting of coal would be minimal, particularly when compared with the fugitive dust pollution caused by railroad transportation of the coal.

5. Conclusion

The conclusion, therefore, that emerges from an examination of these environmental "concerns," is that those raising these questions are either misinformed or are using such concerns as "red herrings." In fact, coal slurry pipelines can and will be environmentally safe.

IV. ESSENTIALITY OF COMPETITION

It is a basic tenet of economics that competition between and among competing interests is in the best interest of all because it invariably results in greater efficiency and lower costs and prices. Moreover, competition is fundamentally fair. The obverse of this principle, of course, is that those who need not compete in the marketplace—monopolies—will charge higher prices.

Historically, the railroads have enjoyed, and continue to enjoy, a virtual monopoly position with respect to transportation of coal. They are, of course, loath to relinquish this position. While they may pay lip service to the need for competition, they continue to unyieldingly oppose the most promising competitive alternative means of transporting coal—coal slurry pipelines. Unless appropriate federal legislation is enacted securing the right of federal eminent domain for the coal pipelines, this competitive mode will not be built, and the rails will continue to enjoy their monopoly.

A. Railroad Monopoly

It has already been documented that the railroads transport the lion's share of the coal in this country. In fact, in the western states where some 85% of coal shippers are "captive" to railroad transportation,81 the costs of such transportation have increased dramatically, particularly since the passage of the Staggers Rail Act of 198082 which resulted in the deregulation of most rail rates.83

In some cases, the costs of shipping coal constitute 75% of the delivered cost of the coal, as is the case for the San Antonio municipal utility.84 Where rail transportation costs have become especially onerous, some in the South

81 ACCT, supra note 2, at 3.
84 ACCT, supra note 2, at 3.
and Southwest have chosen to import coal from South Africa, Poland and Australia, because it is more economical to burn that imported coal than it is to utilize domestic coal. In some instances, these prohibitively high coal haulage rates have even led to mine closures in the East.

Quite clearly, coal slurry pipelines would help hold down coal haulage rates by introducing actual and potential competition into coal transportation costs. Studies by the prestigious Electric Power Research Institute indicate that new coal pipelines will exert downward pressure on rail rates for coal and will permit utilities using these coal pipelines for coal transportation to achieve significant savings in coal transportation costs. Similarly, the Consumer Federation of America and the National Association of Regulatory Utility Commission believe these coal transportation cost savings will lead to lower utility rates than will reliance on rail cost shipments alone.

The impact of these studies is dramatically illustrated by examining a comparison of the costs for transportation of coal per ton-mile by the respective transportation alternatives—rail, pipelines, barges and trucks. As a rule of thumb, coal can be carried by barge at a rate of about .7 to 1.0 cents per ton-mile; by pipeline at about 1.5 cents per ton-mile; by railroad at about 2.5 to 3.0 cents per ton-mile; and by truck at about 10.0 cents, or more, per ton-mile. These variations, taken individually and in combination, illustrate the magnitude of differences in costs for coal transportation as determined by mode of transport.

For example, moving one unit train of coal totaling 10,000 tons for 500 miles might cost about $125,000, compared with about $75,000 for the same shipment moved by pipeline, using the current rate levels. If the distance for the movement were 1,000 miles, the comparable costs would be approximately $250,000 by rail, and $150,000 by pipeline. Thus, in these examples, differences of $50,000 to $100,000 per shipment of 10,000 tons of coal, respectively, for 500 and 1,000 miles would be experienced. These distances are not uncommon inasmuch as a typical railroad movement of coal is 450-500 miles per trip, and movements up to 1,000 miles and larger often occur.

B. Impact of Staggers Rail Act of 1980

Congress, responding to the railroads' entreaties for assistance by way of minimized ICC regulation, enacted the Staggers Rail Act of 1980. The Staggers Act sought to deregulate those aspects of the rail industry where competition already existed. Where, however, shippers were "captive," Congress instructed the ICC to insure that rail rates remained "reasonable," so that

85 Id.
86 National Coal Association, Coal (Feb. 18, 1983) (briefing paper).
87 Id.
the entire burden of revitalizing America's rail industry did not devolve on these "captive shippers." Notwithstanding Congress' manifest intention to protect the precarious position of captive shippers, the ICC has largely ignored this Congressional directive. That is, in both individual cases and in general rulemaking proceedings, the ICC has demonstrated a one-dimensional dedication to increased rail freight revenues, while ignoring the statutory directive to balance the needs of shippers, carriers and the general public. In fact, the ICC's interpretation of its duties to captive shippers under the Staggers Act has been tantamount to de facto deregulation of railroad rates paid by captive shippers.

1. Revenue adequacy

a. Statutory definition. As part of Congress' attempt to balance the need to protect captive shippers while furthering the goal of financial soundness for the railroad industry, Congress, through passage of the Staggers Act, directed the ICC to make an adequate and continuing effort to "assist" the railroads in attaining adequate revenue levels. This ICC assistance is to be provided only for "honest, economical and efficient" carriers.

The concept of "revenue adequacy" did not have its genesis in the Staggers Act. In fact, the Railroad Revitalization and Regulatory Reform Act of 1976 directed the ICC to maintain standards for establishing revenue levels for railroads that were adequate "to cover total operating expenses ... plus a reasonable and economic profit or return (or both) on capital employed in the business."

While the Staggers Act did not alter this particular statutory goal, it created a peculiar imbalance because although it deregulated certain portions of a railroad's business, the ICC was required to continue to assist the railroads in attaining "adequate" revenues on its overall operations, including those segments which had been deregulated.

Despite this paradox, two things seemed clear about Congress' intention with respect to "revenue adequacy." First, no railroad was to be given a government guarantee of success. Second, captive shippers were not to be forced to pay for railroad inefficiencies. Or, as the Conference Report for the Staggers Act makes clear: the mere fact that a railroad does not yet have

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64 Id.; See also B. Johnson and S. Thomas, supra note 83.
67 B. Johnson and S. Thomas, supra note 83, at 727.
adequate revenues does not, in and of itself, make an otherwise unreasonable rate a reasonable rate.3

b. ICC interpretation of revenue adequacy. The ICC has promulgated several rulemakings which would explain and implement the concept of "revenue adequacy." Perhaps the one which best illustrates the ICC's innate bias toward the railroads, however, is Ex parte No. 347 (Sub.-No. 1), Coal Rate Guidelines—Nationwide.4 In that February 8, 1983, rulemaking, the ICC proposed a differential pricing scheme permitting railroads which serve captive shippers to raise their already high captive shipper rates by 15% per year, after inflation, until the railroad has achieved "revenue adequacy." Utilizing this method, the Commission projected that nineteen of twenty-one carrying railroads would achieve revenue adequacy within eight years.5 It should be noted that this 15% allowance would be cumulative. An increase could be deferred and taken in another year along with that year's allotted 15% increase. Moreover, the guaranteed 15% rise is not the maximum permissible increase. That is, where a carrier could demonstrate "compelling circumstances," the ICC, in its discretion, would permit these additional rate increases, beyond the 15%. The ICC further specified that captive coal rates may not exceed a level equal to the "stand alone" costs that are calculated by valuing the cost of rail plant capacity for the stand alone shipper with all assets valued at current replacement cost.6 In other words, before a shipper can complain about captive rail rates, he must be able to demonstrate that the rates exceed what it would cost him to build a railroad for his own exclusive use.

Until a rail carrier achieves revenue adequacy, it will be free to raise its rates unless it violates these administrative guidelines. Clearly there are no constraints on rail rates.

Even a cursory perusal of this Commission's rulemaking strikes one as odd because one of the central statutory directives regarding revenue adequacy—protection of captive shippers and the general public—is addressed in only a minimal fashion. For example, the ICC failed to project the impact of this 15% annual increase on the rates paid by shippers. According to one estimate, shippers would shoulder a 206% increase in coal haulage rates. Thus, a rate of $10.00 per ton in 1983 would be $30.06 per ton in 1991. Coal shippers would pay $18 billion per year in 1991, $12 billion more than today.7

4 Ex Parte No. 347 (Sub.—No. 1) slip op. (I.C.C., Feb. 8, 1983) (served Feb. 24, 1983).
5 Id. at 18, n.51.
6 Id. at 11.
This proposed rulemaking, which apparently guarantees a railroad's chance for achieving revenue adequacy, seems even more strained when one examines the financial "plight" of three railroads which are presently deemed to be revenue inadequate:

1) CSX which originates 31.3% (165.3 million tons) of all coal, has acquired Texas Gas and Resources Company for almost $1 billion. Texas Gas moves natural gas from the Gulf Coast and Appalachian states to the very area where CSX gathers coal from producing mines and delivers coal to consumers. Texas Gas has extensive gas pipelines, active barge lines and substantial oil and gas exploration and production activities.

2) The Norfolk & Southern, which originates 22% (116 million tons) of all coal moving by rail, acquired 20.2% controlling interest in Piedmont Airlines at a cost of $57 million in 1982.

3) The Burlington Northern, which originates 21.1% (112.1 million tons) of all coal, acquired the El Paso Company, a major interstate natural gas pipeline company at a cost of $700 million in 1983.

Surely, any description of "revenue inadequacy" which encompasses these three examples is, at least, oxymoronic.

C. Actual Case Studies

Even absent concrete demonstrations of the competitive benefits offered by coal slurry pipelines, the foregoing discussion constitutes strong evidence that federal legislation is vital. Where, as here, however, actual illustrations showing tangible effects exist, the need for immediate positive action on coal slurry pipeline legislation becomes compelling. Several case histories of both the actual and potential effects of coal slurry pipelines' competition with the railroads will serve the intended purpose.

As has been noted above, the only presently operating coal slurry pipeline is the Black Mesa line which carries coal slurry from Arizona to Colorado. This pipeline was made possible even without coal slurry pipeline legislation because the pipeline crossed the Santa Fe Railroad right of way at only one point.

This is not to say that the railroad readily acquiesced in the Black Mesa coal slurry pipeline. Rather, it agreed because a mining permit of a subsidiary or affiliate of the railroad was then pending with the Department of Interior, which strongly favored the pipeline. Thus, the railroad felt it had...

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102 Id.
103 Id.
no choice in the matter. When it became clear that this particular proposed coal slurry pipeline was a fait accompli, and that the railroad's hitherto unchallenged dominance in the coal transportation market was about to become a relic of the past, the railroad responded by purchasing the Black Mesa line. At present, then, the Black Mesa Pipeline is owned and operated in an examplary fashion by the Southern Pacific Pipeline Company, a subsidiary of Southern Pacific Industries.

A wholly intrastate coal slurry pipeline was built by Consolidation Coal Company in Ohio in the 1950's, though that one is no longer operational. Here again, when the railroads' efforts at blocking its implementation foundered, the railroads, faced with competition, substantially reduced the rate of transporting coal to the consuming utilities. Thereafter, the pipeline ceased operations.

More recently, the experience with the proposed coal slurry pipeline for Arkansas Power & Light is equally enlightening. The electric ratepayers served by Arkansas Power & Light had been captive to the Burlington Northern for coal haulage. Consequently, the rates they paid were high.

However, as a direct result of the competitive threat posed by the proposed ETSI coal slurry pipeline, Arkansas Power & Light was able to drive its own bargain. Thus, it was able to realize significant savings ($16.5 billion) which it will pass on directly to its ratepayers. Despite the fact that Arkansas Power & Light actually contracted with the Chicago and Northwestern and Union Pacific Railroads to transport their coal, rather than ETSI or Burlington Northern, the important fact is that the mere threat of genuine competition resulted in lower coal transportation costs.

Floyd W. Lewis, Chairman/President of Middle South Utilities, Inc., parent of Arkansas Power & Light, commented regarding the rail contract for coal movement to its generating plants in Arkansas as follows:

I believe you assessed the situation accurately when you noted that the presence of a proposal from a credible slurry pipeline alternative enhanced the competitive bidding environment for this transportation. While there was additional competition between two originating rail carriers for the movement as far as Kansas City, the pipeline alternative provided the only competition to the delivering carrier from that point to the power plants.

As I have previously indicated, the Middle South System still supports the slurry pipeline concept. I want to thank you again for your continuing support.

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102 Letter from George H. Eatman, Executive Director, Slurry Transport Association, to Senator J. James Exon (May 23, 1983).
103 Id.
104 See id.
105 Id. at 28.
for the development of coal pipelines and ask that you continue your support for the pending legislation which, hopefully, the Senate can favorably consider this fall. In my opinion, successful enactment of this legislation into law is necessary for consumers of electricity throughout the country to have the benefits of competitive pricing for transportation of coal.106

Thus, Arkansas Power & Light customers will enjoy a five percent reduction in the cost of electricity as compared to what the cost would have been if Burlington Northern’s current tariffs had not been completely challenged.107

Following defeat of H.R. 1010, Secretary of Energy Donald Hodel, speaking to a tri-state citizens energy conference in Charleston, South Carolina, expressed the frustration of many when he stated:

Frankly, from my point of view, we need some kind of legislation or some kind of provision—I don't know whether it is coal-slurry or something else—which will cause the railroads to begin to be realistic with the rates they charge for transporting energy.

They have a monopolistic position and frankly they are gouging the consumers of the United States and are rendering us incapable of expanding our markets in the international arena. Unless they come to grips with that, they are going to be faced with increasing efforts to turn them around.108

V. CONCLUSION

The case for coal slurry pipelines and the need for implementing federal legislation is clear. The benefits to the American public are tangible, not only in terms of increased usage of domestic coal reserves but also in terms of lower energy costs, as well as increased coal exports.

Unlike the railroads, the coal slurry pipelines will not be dependent upon federal largesse. While passage of this legislation does not guarantee that a single additional coal slurry pipeline will ever be constructed, it will insure that a genuine element of competition will have been introduced into the coal haulage arena. That fact alone should secure its enactment. Until appropriate federal legislation is enacted, however, slurry pipelines will continue to be "pipe dreams."
