
III. Issues and Findings

III. Issues and Findings

The request to OTA for an assessment of coal slurry pipelines is a consequence of proposed legislation which would grant such pipelines Federal eminent domain powers. This question and the controversy surrounding this proposal presuppose certain more basic policy issues. Should the Federal Government adopt a policy of facilitating the development of coal slurry pipelines? Does the present regulatory and institutional environment encourage the allocation of coal traffic on the basis of the true cost to society? If not, should steps be taken to try to achieve that result? Is such a policy compatible with an effort to protect State jurisdiction over matters such as water resource allocation, land ownership, and local environmental quality? The following specific issues and findings were formulated to elucidate these underlying policy questions as well as the more specific legislative issue of eminent domain.

In much of this analysis, the critical questions often extend beyond slurry pipeline development as an issue unto itself. These questions are also not new. For example, the effect of the regulatory environment on the ability of railroads to compete with pipelines is only a part of a larger problem concerning the way in which railroads are regulated generally. Also, potential water use by slurry pipelines is controversial partly because water resources in arid portions of the West are managed arguably neither by a completely rational and explicit planning process nor by the usual market mechanism which applies to other natural resources. Finally, some of the differences of opinion over slurry pipelines are reflections of regional conflicts over energy development generally. Hopefully, this assessment will contribute some to the resolution of these larger questions, as well as the specific issues related to the coal slurry pipeline debate.

Issue 1

Do slurry pipelines represent a less costly way to move coal?

If one ignores regulatory distortions and larger social costs, slurry pipelines can, according to this analysis, transport coal more economically than can other modes under certain circumstances. The following conditions tend to favor pipelines on any particular route:

- High annual volumes of coal shipped.
- Long distances to be traversed.
- High anticipated rates of inflation.
- Low real interest rates.
- Large closely spaced mines.
- A secure market of several large customers located in such a way as to permit them to receive coal from a single pipeline.
- Terrain characteristics favorable to pipeline excavation and construction.
- Availability of sufficient water at low delivered cost.
- Low cost of electric power for pipeline pumping relative to that of diesel fuel for railroad locomotives.
- Circuitous rail routes, poor track, or other conditions unfavorable to railroads.
- Inefficient rail operations, including short or slow trains.
- Absence of a parallel navigable waterway.

The choice of pipeline transportation over rail represents in part a decision to incur capital costs, which can be amortized at a predictable rate, rather than operating costs, which are subject to inflation. This common business decision involves weighing the real interest rate one must pay on invested capital against the uncertain inflation component of future operating expenses. Comparisons of rail and pipeline economics in this analysis are based on total life cycle costs, and they take the greater exposure of rail expenses to infla-

tion into account. However, managers of electric utilities, which represent potential customers for slurry pipelines, perceive an advantage in greater stability as well as lower overall levels in transportation tariffs.

The necessity to predict future construction costs, labor productivity, and inflation rates adds a major element of uncertainty to the relative costs of the two modes. In fact, the range of uncertainty associated with predictions of rail and pipeline costs in a given case is often as great as the difference between them. Pipeline financing requires long-term purchase contracts with customers, which embody significant risk given the difficulty in forecasting the future. Since the costs of errors in judgment will probably be borne largely by the public and not necessarily by the utility investors, regulatory agencies governing utilities should therefore scrutinize long-term contracts for pipeline transportation with great care.

If pipeline economics do result in savings, the benefit will accrue to the coal mining, electric utility, and pipeline industries. Regulatory mechanisms can cause savings in the transportation and utility sectors to be passed on to consumers. The mining industry is not similarly constrained by regulation, but competition may limit increases in mining revenues.

Since economic conditions favoring pipelines or railroads are present to varying degrees at different times and locations, and since the determination of cost advantages entails considerable speculation about the future, Congress therefore faces the challenge of formulating legislation sufficiently flexible to allow choices to be made which suit specific conditions. (For further discussion of costs, see *Coal Transportation Market*, chapter IV.)

Issue 2

To what extent does the regulatory structure surrounding each mode influence the apparent relative economic attractiveness of railroads and slurry pipelines?

Common carrier status and Interstate Commerce Commission (ICC) rate regulation place railroads at a disadvantage relative to less stringently regulated pipelines. Even if pipelines were required to be common carriers in name and subjected to the Interstate Commerce Act (ICA), they would still behave like contract carriers in practice due to the practical requirements imposed by the economics and mechanics of their operation. This has three consequences.

First, pipelines could capture coal traffic from railroads even where the incremental rail cost is lower. Rail rates contain an element of fixed system costs and losses which result from the requirement to maintain certain unprofitable services, e.g., low-volume branch lines. This creates a distortion in relative rates, permitting selection of pipeline transportation in some cases where rail represents a lesser cost to society.

Second, rate regulation which does not allow a "market" return on direct rail investment will not permit facility improvements that would reduce total costs. "Real" costs as estimated in this study are not as low as those that railroads could achieve with an improved ability to attract needed investment.

Third, prohibitions against long-term contracts with shippers impede railroads from undertaking otherwise economical investments that would only pay for themselves over a period of time.

Pipelines do not have the same fixed cost structure or obligation to continue unprofitable service, except as provided in contracts. Moreover, pipeline rate regulation would probably provide for a return on investment substantially higher than ICC has historically allowed on direct rail investment, as exemplified by the recent San Antonio Rate Case (Docket #36180). (This issue is discussed more fully in chapter VI 1.)

Issue 3

Will development of coal slurry pipelines adversely affect the health of

the railroad industry in such a way as to jeopardize the quality or cost of service to remaining shippers?

Under an assumption that pipelines carry a share of coal traffic increasing to approximately 200 million tons per year by the end of the century, western railroads will experience slower increases in coal revenues than they would otherwise have expected. Although any reduction in revenue could represent a threat to the financial health of a particular railroad, the potential impact of coal slurry pipelines on the railroad industry appears to be substantially less than that of either a possible adverse regulatory policy or a decline in the present rate of improvement in productivity.

The likely effect on railroad customers will depend upon several conditions. The analysis performed in this assessment suggests that average rail road costs decline as the system expands to provide new service. If such is the case, the critical questions are a) whether or not the railroads would pass on these savings to other shippers, and b) how large the savings would be if pipelines did not enter the market. If savings are not passed on to rail shippers, slurry pipeline competition will affect the profitability of the rail industry and possibly the quality of service it provides, but not the rates paid by its customers.

Under current regulations, however, rail cost savings will probably accrue, at least in part, to shippers through reduced rates of growth in tariffs relative to general inflation. The most probable effect on rail customers from pipeline competition will, therefore, be a lessening of the present rate of decline in average tariffs per ton-mile adjusted for inflation.

Shippers faced with higher relative rail tariffs might adapt by switching to another mode of transportation. As a consequence, rate impacts will probably be felt more strongly by captive rail customers. Also, such changes in transportation mode are not certain to reduce total social costs.

The foregoing discussion presumes that

pipeline development would occur gradually and would involve only new coal movements and not those already carried by rail. Rapid diversion of rail traffic after substantial resources have been invested to expand service would clearly have an additional adverse impact on the rail industry.

Finally, some argue that more competition would promote increased productivity and technological improvement in the rail industry. The magnitude of this effect depends on the level of competitive forces already present and on the incentives built into the regulatory structure. Added competition may also influence investor confidence in railroad enterprises, making capital formation to implement improvements more difficult. (Chapter V focuses largely on this issue.)

Issue 4

Will capacity limitation of other modes necessitate the development of coal slurry pipelines to carry projected coal volumes?

The capacity of rail systems can be expanded faster than can coal mining or electric power generation using coal, provided the necessary investments in local rail facilities are made. The same is true of slurry pipelines. Supplier industries and capital markets are adequate to meet the development needs of either mode, although, continued low net incomes in the rail industry may impede the capital formation needed to finance rail expansion.

The choice between transportation modes will not be determined by their respective capacity limitations. Sufficient investment in either can keep transportation capabilities abreast of foreseeable needs. The real question is which type of investment (rail or pipeline) makes the most sense economically, socially, and environmentally. Similarly, the amount of coal to be mined and consumed on a national scale will not be affected as much by transportation capacity or cost, especially in the West, as by the environmental and social costs of large-scale mining and combus-

tion, the expense associated with converting utility and industrial boilers from oil or gas to coal, price trends in world oil markets, and the national priority placed upon reducing dependence on foreign energy supplies.

The pattern of distribution of coal from producing areas to points of use, however, is sensitive to transportation costs. Thus, relative reductions in coal freight rates in the West will encourage the use of western coal at greater distances from where it is mined. (This issue is addressed in a forthcoming OTA assessment of future coal utilization.)

Issue 5

What other economic factors represent relative advantages or disadvantages of coal slurry pipelines?

Three areas of economic impact resulting from reliance on slurry pipelines or railroads remain to be considered. These involve employment, agriculture, and impacts on the distribution of income. Under the transportation scenarios considered in this study, the total cumulative employment by slurry pipelines and railroads until the year 2000 is roughly equivalent with or without slurry pipeline development. Pipelines over their useful life are less labor intensive than railroads, but during the construction period labor requirements for pipelines are high. Under the scenarios examined here, construction activity will continue until 2000 with substantial employment in this sector and in supplying industries as a result. Even without the competition of pipelines for new coal traffic, railroad employment is expected to remain at a constant level, or even decline, until 1990. If slurry pipelines capture a significant portion of the coal transport market during this period, especially if they do so after railroads have expanded their operations to carry new coal traffic, the decline in railroad employment may outstrip attrition and result in actual layoffs. This effect, however, is not likely to be great on a national scale.

Agriculture may be affected locally by future water availability impacts of slurry

pipelines, as well as by the cost and quality of service by railroads. Train traffic can also have direct adverse impacts on agriculture in the form of possible disruption of ranching operations.

After computing overall costs, questions of equity remain. Not all will benefit or be burdened equally by a decision in favor of one or another coal transport mode. A slurry pipeline may lower the shipping costs of utilities while raising them for noncoal rail users. Pipeline construction will benefit construction labor at the expense of railroad labor. Some industries will benefit from an expansion of coal unit trains while the communities through which they pass will experience the disruptive effects of such expansion. Balancing the conflicting interests involved is a subjective and political process. (These considerations are also covered in chapter V.)

Issue 6

What will be the impacts of water use for coal slurry pipeline development? How might such impacts be mitigated?

The allocation of water for any use can potentially have a significant impact upon: 1) the physical environment by diminishing surface stream flows or depleting ground water supplies; and 2) the future economic and social well-being of the populace in the water source area as choices must be made between competing water uses in the future.

Physical environmental impacts are largely a function of the ratio of pipeline water requirements to the size of physically available surface and ground water flows. In none of four hypothetical pipeline routes analyzed would the water needed be a large enough percentage of the total supply to have a significant impact on stream water quality. In the most extreme hypothetical case examined, that of pipelines carrying 125 million tons of coal per year from eastern Wyoming, the proportion would be 3 percent of available surface flows.

Economic and social impacts depend upon

the degree to which pipeline water demands infringe upon alternate uses for the same water. Sufficient water is physically, although not necessarily legally, available in three western coal-producing areas studied to service both existing uses at present levels and a substantial number of coal slurry pipelines as well. However, pipelines do compete directly with other possible *future* uses. These include alternative forms of energy development involving inter alia facilities for coal mining, electric power generation, and shale oil. Consequently, a decision to construct a coal slurry pipeline will require consideration now of alternative uses for water in the future. When levels of use exceed users' rights, as is the case during years of relative abundance of water, new appropriations may displace present, as well as future, uses.

The water-related impacts of coal slurry pipelines can be mitigated if sources of water can be found which are usable for slurry but not for most other purposes. There are three promising possibilities: irrigation return flows; primary or secondary sewage effluent; and most important, saline ground water. In each instance the water may need some purification for use as a slurry medium but this appears to be a manageable requirement. Sewage effluent will not be available in sufficient quantities in many areas to serve as more than a supplementary water source, and the sizes and locations of saline ground water sources are generally not well known. An additional means of mitigating the pressure on limited water resources is to recycle the recovered slurry water by return pipeline. The limiting factors are the high but not necessarily prohibitive cost of such a self-contained system and the fact that not all of the water can be readily separated from the coal.

It should be emphasized that coal slurry pipeline water use represents only a small part of a large set of issues surrounding water resource allocation in the West. The National Water Commission in 1973 described the situation as follows:

Water differs from other resources in

that to a large extent its allocation among different uses is made outside a market price system. Legal and administrative institutions based more often than not on tradition rather than economic efficiency, play a basic role in water allocation. Therefore, public policy must be relied upon to be a major determinant in the flexible allocation of water resources to achieve improved patterns of productive uses.¹

Further discussion of water use impacts is contained under *Water Use by Pipelines* in chapter VI.

Issue 7

How does water law affect the viability of coal slurry pipelines? Specifically, who exercises control over water required for coal slurry pipelines, and how might Federal or State authority be affected by legislation?

State law governs access to surface and ground waters within the State subject to two major limitations: 1) waters shared with other States, such as a river or lake that crosses State boundaries, and 2) water controlled by the Federal Government.

State governments exercise some control over access to water for coal slurry pipelines in a variety of ways. Water resource management policy determines the rate at which ground water sources are exploited, i.e., whether they are mined or whether extraction is confined to a rate not exceeding natural replenishment. States can withhold water from use for purposes of conservation and planning for future needs. Even if adequate water supplies are physically available, any potential user must qualify under State law as a "beneficial use" in terms of the public interest. The courts have yet to resolve definitively the question of whether coal slurry pipelines are a beneficial use. Other State-imposed obstacles to providing water for slurry include "use preference" policies, which could conceivably

¹National Water Commission, *Water Policies for the Future*, Washington, 1973, p. 319

result in preemption of the water supply of a pipeline by other users after the pipeline is operational, and prohibitions on the exportation of water out of State. The latter type of provision, however, is of uncertain constitutionality.

The Federal Government has ample power under the Constitution to assure adequate water supplies to a coal slurry pipeline, State restrictions notwithstanding. That authority derives primarily from the commerce and property clauses of the Constitution. The former has been interpreted to give the Federal Government authority over all navigable water and the latter over water from Federal projects. Moreover, there is judicial precedent in support of the preemption doctrine, i.e., where there is a declared Federal interest in a policy, State law cannot be permitted to contravene that policy.

Despite these sweeping powers, Federal officials have traditionally administered Federal law in a way that tends to preserve State controls over the distribution of water. Slurry legislation presently pending before Congress does not alter this situation. Control over water supplies is unchanged in some proposed bills, and in others the use of federally controlled water for slurry pipelines is expressly forbidden. However, the First Iowa HydroElectric Cooperative v. Federal Power Commission case suggests that the courts may rule that Federal certification of a coal slurry pipeline will negate State attempts to restrict unallocated water to the project even though Federal statutes seem to reserve control over water to the States. To the extent the law is uncertain, the proponent of a coal slurry pipeline who has been unable to obtain rights to State water may seek to force such access through litigation in the Federal courts.

If these matters are to be clarified, Congress must address three issues through legislation. First, it must be decided to what extent, if any, water under Federal control should be made available for coal slurry purposes. If it is decided that such water should be provided, that intent should be made unambiguously clear to

the administrators of Federal projects through legislation. Second, Congress is in a position to decide the extent to which control of water resources for a pipeline survives the enactment of legislation authorizing Federal certification and regulation of pipelines. Pending legislation leaves little scope for State regulation of pipelines. If the intent of Congress is to preserve meaningful State regulation then the legislation should spell out what State administrators may do to control water for pipeline use. Third, Congress can determine the degree to which the Federal Government will defer to State law in distributing water from Federal sources.

The basic problem facing Congress is whether it is desirable and possible to reduce the uncertainty surrounding water supplies for coal slurry pipelines while protecting to a substantial degree existing State jurisdiction over water sources. (For further discussion of water law, see *Water Law*, chapter VI I.)

Issue 8

What are the principal relative social and environmental impacts aside from economic benefits of railroads and pipelines as coal carriers? To what extent can adverse impacts be mitigated?

Water requirements and possibly some transient effects of construction constitute the principal source of adverse environmental and social impacts associated with coal slurry pipelines (see Issue 6 above). For railroads the major negative impact is social — the disruptive effect of increased unit train traffic upon the lives of individuals living or working near the tracks. That disruption can take a variety of forms: increased exposure to train noise, interruption of commuting and other automobile traffic, additional accidents at grade crossings, and interference with cattle movements on range land.

Some of the adverse impacts that result from increased unit train activity can be mitigated. Grade separations permit the safe movement of vehicle and pedestrian traffic across tracks. Cattle passes may facilitate the

movement of herds from one range to another. New highway and rail construction can be planned so as not to intersect if at all possible. New tracks can be laid to avoid residential areas, and land alongside existing track can be zoned nonresidential. These “solutions” are not without their drawbacks. Some, like vehicle grade separations, are expensive, and the costs are often borne in part by the public. The utility of grade crossings for cattle is uncertain. Some impacts must simply be accommodated, e.g., the nonresidential zoning of town land alongside the tracks may be necessary where no practical means are found to reduce exposure to train noise. To a significant degree, whether the impacts of increased unit train traffic prove manageable will depend on the extent to which railroad companies and the communities and landowners along the tracks are able to cooperate and work together to deal with those problems that arise.

Other environmental and social impacts associated with either coal slurry pipelines or unit trains, e.g., air pollution, construction impacts, revegetation, and occupational health and safety, are not particularly serious or are roughly equivalent for the two modes. (Environmental impacts are covered in chapter VI with a specific section on *Community Disruption by Railroads.*)

Issue 9

What present Federal or State environmental protection laws are relevant to potential adverse impacts of railroads or slurry pipelines?

The major Federal environmental protection laws relevant to coal slurry pipelines and unit trains are the National Environmental Policy Act (NEPA), and the Federal Water Pollution Control Act (FWPCA). Also applicable, but less important in this instance, are the Clean Air Act (CAA), the Noise Control Act (NCA), the Resource Conservation and Recovery Act (RCRA), the Safe Drinking Water Act (SDWA), and for protection of construction and operation personnel, the Occupational Safety and Health Act (OSHA).

Under the requirements of NEPA any major Federal action significantly affecting the environment must be preceded by an Environmental Impact Statement (EIS). It is technically possible at present to construct and operate a slurry pipeline without a Federal EIS, since no major Federal action or certification is required to initiate service. Increased train traffic, the basic source of rail-related environmental problems, also does not require an EIS. However, a number of activities in connection with the construction and operation of both coal slurry pipelines and unit trains may involve Federal action requiring an EIS. These include construction on Federal lands, crossing “navigable waters” or “waters of the United States” (which includes most of the Nation’s surface waters), and discharge of wastes into waters of the United States. Regulatory agencies granting certificates of Public Convenience and Necessity for extension or abandonment of service must also file EISs. Where Federal action is not involved, pipeline and rail activities will require a State EIS in some instances,

The waters of the United States are protected against pollution discharges from coal slurry pipelines or unit trains under FWPCA. The FWPCA does not cover ground water, which will be partially protected by regulations to be promulgated by the Environmental Protection Agency (EPA) under the SDWA and the RCRA. For example, SDWA regulations will govern the underground disposal of waste water, and RCRA leaching of waste water, from preparation of the coal slurry or from dewatering facilities and possible holding ponds. Railroad and pipeline construction activities will be subject to Federal regulations concerning nonpoint source pollution and erosion runoff.

The Clean Air Act as amended provides for comprehensive control of air pollution. Under CAA, EPA has promulgated national primary and secondary ambient air quality and stationary source standards and is implementing regulations for a variety of pollutants. These are indirectly applicable to coal slurry

pipelines in that they affect powerplants which supply electricity to pumping stations. They are not applicable to locomotive emissions. Standards concerning particulate matter will apply to coal dust emissions associated with the preparation of coal for transport by pipelines or rail and the operation of unit trains. Construction of a pipeline or rail line will, in some States, be subject to standards and regulations concerning fugitive dust. Locomotive emissions may be regulated under State implementation plans.

Other impacts associated with the construction and operation of one or the other of the two transport modes and subject to Federal regulation include train noise under NCA, and railroad crossing safety under OS HA. Finally, under some Federal environmental protection statutes private parties could bring suit to remedy pipeline- or rail-induced environmental damage by compelling EPA or other appropriate regulatory agency to enforce the applicable statute. Several Federal and State programs are aimed at improving safety and reducing inconvenience at railroad highway grade crossings, partially at public expense. Provisions of the 1976 Federal Highway Act (23 USC 140, 203) are examples. (See *Environmental Law*, chapter VII.)

Issue 10

What present Federal and State laws are applicable to land acquisition for a coal slurry pipeline right-of-way? What legal precedents are provided by other commodities and transport modes?

The power of eminent domain is inherent in the authority to govern and is limited only by the principles of just compensation to the owner of the expropriated property, the territorial jurisdiction of the government concerned, and the requirement that any grant of eminent domain authority must serve a beneficial public purpose. Statutory limitations may be imposed in connection with particular grants of eminent domain authority. Congress has the power to formulate legislation granting rights-of-way over Federal public lands, na-

tional forest lands, and through powers of eminent domain, over private and State lands for pipelines engaged in interstate commerce.

At present no Federal legislation grants eminent domain authority for coal slurry pipelines. Among States west of the Mississippi, six have enacted eminent domain provisions for that purpose. Others have no statutes which could be interpreted as including such authority, and in the rest a slurry pipeline company could not be sure it had the power of eminent domain until the issue was litigated. Recent State legislation granting eminent domain to slurry pipelines limits their use of State water and subjects them to State regulation as a common carrier. The pipeline must be deemed to fulfill a "public purpose" within a State to qualify for a grant of eminent domain power from any State.

The issue of eminent domain for coal slurry pipelines arises in large part because railroads and other landowners, under whose land pipelines would have to cross, have declined to grant the necessary rights-of-way. In those instances where a railroad holds fee title to its own right-of-way, it can presently prevent a slurry pipeline from crossing the tracks. Where the railroad holds only an easement, it cannot. In the Western States much of the early railroad rights-of-way were acquired under the Pacific Railroad Acts of 1862 and 1864, and the type of right-of-way acquired thereunder is in dispute. Recent court judgments tend to suggest that the railroads received only a limited fee which would not empower them to prevent crossing by a slurry pipeline, but further litigation will be required for a definitive resolution of the matter. Even if the right to cross railroads is achieved, slurry pipelines will still have to negotiate rights-of-way from other landowners, not all of whom will necessarily be sympathetic.

A precedent for a Federal grant of eminent domain power to a transportation enterprise exists in the 1947 Amendment to the Natural Gas Act, which gave such authority to interstate natural gas pipelines. On the other hand, the vast network of interstate oil

pipelines (with one brief exception) together with ammonia fertilizer pipelines and railroads have been built with only State eminent domain authority.

A comparison of interstate coal slurry pipelines with interstate natural gas pipelines indicates that although the granting of Federal eminent domain to gas pipelines does not mandate such a grant to coal pipelines, it does furnish a legal precedent if Congress finds such a grant to be in the national interest.

On the other hand, comparison of coal slurry pipelines with oil pipelines suggests that State eminent domain authority may not be as effective in meeting needs of the former as it has been for the latter. (This area is discussed further under Eminent Domain in chapter VII.)

Issue 11

What would be the direct consequences of and alternatives to granting coal slurry pipelines eminent domain powers under Federal as opposed to State law?

Congress has four basic options with regard to eminent domain for coal slurry pipelines. The first is to avoid granting authority and leave the matter to the States. A number of States have already enacted legislation granting slurry pipelines the power of eminent domain. In order to qualify for this benefit, most States require that the prospective pipeline operator obtain a license or certificate of public convenience and necessity, be designated a common carrier or public utility serving a beneficial public purpose, and accept State regulation regarding rates and access to State water.

From the perspective of the pipeline operator, this first option presents several difficulties. Under the best of circumstances it will require negotiations with several State governments, each with somewhat different requirements. More seriously, a slurry pipeline may have difficulty meeting the beneficial public purpose test in the State in which it originates and in those through which it passes

since the coal is not made available to markets in those States. Consequently, the pipeline may not qualify for a grant of eminent domain authority under State law even if such legislation is on the books. Finally, there is no guarantee that every State on the route of a planned pipeline will enact the desired legislation. If a pipeline must be constructed without the benefit of eminent domain authority, it will be much more difficult if not impossible to acquire the needed right-of-way. Some landowners may resist any passage or demand exorbitant prices. The result will probably be delays, increased costs, and less efficient routing.

The second option is to provide eminent domain authority under Federal law. Such a grant of Federal authority would be valid in all States and would exempt slurry pipelines from State licensing or certification requirements. In their place would be one certificate of public convenience and necessity issued by a Federal agency. At the same time State regulations not in conflict with constitutional provisions or Federal statutes could still be applied to the pipeline. Compared to the first option, this approach should facilitate the construction of slurry pipelines by reducing both delays and costs.

The third option involves a conditional grant of Federal eminent domain power. Such authority would be granted to a pipeline only if State eminent domain authority were not available. The States would be allowed a period of time in which to grant eminent domain authority to slurry pipelines on such conditions as might be deemed necessary to protect the interests of the State. Only if a State failed to act, or if State legislation proved inapplicable to a particular pipeline, would Federal eminent domain authority be provided.

The fourth option would be to grant the power of Federal eminent domain for individual pipeline projects through specific legislation. This approach would be cumbersome, but it would allow Congress to deter-

mine, in each case, the degree to which the national interest is served.

If it is determined that coal slurry pipelines should be built, either Federal or State eminent domain authority would appear to be a necessity. If the objective is to encourage their rapid

development, Federal legislation has some clear advantages. However, if the intent is to reserve for the States the power to protect their interests as they perceive them, then preemption by a Federal statute would be undesirable.