6-8-1982

South Dakota and the ETSI Experience

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SOUTH DAKOTA AND THE ETSI EXPERIENCE

Introduction

In this paper I would like to take the opportunity to remove from the emotional arena South Dakota's experience with ETSI Pipeline Project and its coal slurry pipeline proposal and explain to fellow practitioners of the legal profession, in the context of a rational examination, what it is South Dakota and ETSI have done. In doing so, I am confident that the attendees of this conference, as fellow professionals, will agree that South Dakota was placed in a position that a decision had to be made and action had to be taken. I am also confident you will agree that the decision South Dakota made was the correct one under the circumstances. In presenting these remarks here today, I would like to discuss South Dakota's impression of why coal slurry pipelines are becoming a force in the coal transportation market, why the Missouri River is an attractive water source from the standpoint of both ETSI and South Dakota, why South Dakota was drawn into this relationship with ETSI, what the basic contract between South Dakota and ETSI provides, what it is the downstream states are complaining about, and what the law of the 1944 Flood Control Act and Federal law respecting inter-basin transfers really is.

Why Coal Slurry?

In an address to the American Public Power Association delivered on May 7, 1969 Mayor Lyle Cockrell of San Antonio related her city's experiences in its attempts to convert from natural gas to coal in its municipal electric utility. Mayor Cockrell indicated that things went very smoothly in
designing the equipment to convert to coal and in obtaining long-term coal contracts from Sun Oil Company at its Cordero Mine near Gillette, Wyoming. With respect to the transportation of that coal from Wyoming to Texas, however, the Mayor related an entirely different story.

"Unfortunately, this story is not the same for the railroad freight rate. When we were looking for coal leases..., the railroad at point of origin, quoted us a price of $7.90 a ton for hauling the coal 1630 miles from Wyoming to Texas by unit train, with [San Antonio] furnishing some $30 million dollars of coal cars. Subsequently, when the commitment was made to the Cordero Mine, [the railroad] withdrew its offer and began quoting prices of as high as $16 a ton. When no agreement could be reached we were ready to stockpile coal, we petitioned the Interstate Commerce Commission to set a rate, and they did so in October, 1976, at $10.93 a ton. In the next two years, several freight rate increases were granted until the rate reached $12.42 a ton. It became apparent that railroad lobbyists were hard at work. Then, on December 1, 1978, the ICC granted a rate increase to $16.12 per ton. Eight additional rate increases since that time have driven the freight rate to $20.25 per ton. There have been five increases since October 1 of last year!"

These remarks by the Mayor of San Antonio are sufficient argument to explain why some people feel that there is a need for competition in the coal transportation market.

ETSI feels that it has a competitive advantage over railroad transportation because of the capital intensive nature of coal slurry pipelines. Chart 1 is a graph taken from a presentation by E. J. Wasp, Executive Vice-President of ETSI given to the Interstate Oil Compact Commission in 1981. It represents the claim by ETSI that 70% of a coal slurry pipeline's operating costs go to debt service and are fixed. Only 30% of slurry pipeline operating costs are variable and, therefore, are subject to inflation. Railroads on the other hand currently have only 15% of their operating costs fixed and 85% of their operating costs are variable and are subject to inflation. As Chart 1 shows during an inflationary period the mode of transportation with the highest percentage of fixed cost gains a considerable competitive advantage. Under ETSI's calculations, at a 5% rate of inflation as is represented by the 1979
GNPD, the cumulative savings in operating costs over a 30 year period represents $32 billion.

From our perspective, we are receiving arguments from both sides. The railroads claim that slurry lines are so expensive that they will never get off the ground and, in fact, the first coal slurry line ever constructed, they claim, was put out of business by railroad competition. ETSI on the other hand claims that the first slurry line located in Ohio did, in fact, compete with railroad transportation but stopped its operation for other unrelated reasons. Our only conclusion is that the first coal slurry line's resulted in the railroads' initiating unit train transportation for coal and consequently lowering rates for coal customers.

Why Missouri River Water?

Chart II is an outline map of the Missouri River Basin. It covers all of Nebraska and portions of nine other states. The basin covers 1/6 of the total land area of the United States and also extends into Canada. On an average annual basis and based upon 1970 estimated levels of depletion, the annual flow of the Missouri River at Sioux City, which is the traditional dividing line between the upper and lower basin, is 21 million acre-feet of water per year. The River is a gaining river and by the time it empties into the Mississippi River just upstream from St. Louis, the average annual flow is approximately 54 million acre feet of water per year. The net gain, therefore, averages 33 million acre feet of water per year between Sioux City and the river's mouth.

This is a substantial amount of water in comparison to amounts projected to be necessary for energy development. The natural flows of the Missouri
River, however, have been enhanced by the construction of 6 reservoirs on the mainstem of the river itself. Four of those reservoirs are located in South Dakota, 1 in North Dakota and 1 in Montana. The total storage capacity of those reservoirs is approximately 74 million acre feet of water. Chart III shows the actual level of storage in those reservoirs during 1981 and the projected storage levels during the remainder of the 1982. On the right hand side of the chart, the bottom line represents a storage forecast if precipitation for the remainder of the year is in the lower 10% of the historical experience. The next to the bottom line represents the storage forecast if precipitation for the remainder of the year is in the lower quartile, the middle line represents the storage forecast for median precipitation, the next to the top line is the forecast for upper quartile precipitation, and the top line is the forecast for precipitation in the top 10% of the historical experience. As the Chart shows at the beginning of March in 1982, there were still approximately 52 million acre feet of water in storage in the main stem system on the Missouri River. This represents more than 2 years' average flow of the Missouri held in storage in South Dakota, North Dakota and Montana.

The purposes of these dams is navigation, flood control, irrigation and hydropower development. Chart IV shows a comparison in year 1975 of the actual flows of the Missouri River at Sioux City, Iowa, with the flows that would have naturally occurred in the absence of the mainstem reservoirs. Flood stage at Sioux City is approximately 90 thousand cubic feet per second. As you will note, for most of the months of May, June and July the Missouri River at Sioux City would have been at or above flood stage. Because of the dams, however, this water was held back and at no time did the actual flow ever exceed flood level. Furthermore, the natural flows during the last
portion of the navigation season in September, October, and November would have fallen way below those flows necessary to maintain navigation on the Missouri River. Actual releases from the dams, however, maintained flows at a level very close to 65,000 cubic feet per second and a full service navigation season was provided up until the end of November. A similar chart for 1980 and 1981 is presented in Chart V. Chart VI shows the power generated by the Missouri River mainstem system. The receipts from this power are used to repay the federal government for its investment in the power and irrigation portions of the mainstem reservoirs.

Chart VII shows the flood damages prevented by the mainstem reservoirs. As of 1981 the cumulative savings in flood damages estimated by the United States Army Corps of Engineers is 1,537 billion dollars. This total exceeds the money invested by the United States Government in the mainstem dams for flood control purposes. These benefits are received almost entirely by the downstream states. Note that 1978 represented a savings of $450 million of flood damages that never occurred. In exchange for this flood protection downstream, the State of South Dakota gave up approximately 530,000 acres of prime farm land that is now under water and is contributing little or nothing to the South Dakota economy.

Chart VIII shows the navigation on the Missouri River through 1982. The top portion of the bar represents navigation tonnage moving in an upstream direction. The remainder of the bar represents navigation tonnage moving in a downstream direction. As is evident from the fact that little or no navigation occurred in the years prior to 1954 when the first dams were closed, this navigation would not be taking place without the construction of those dams.
The question arises from South Dakota's standpoint: Who is benefitting from the construction of these reservoirs? They were all authorized in the Flood Control Act of 1944. In addition to the flood control and navigation benefits downstream which have been realized, the 1944 Act also provided and authorized the irrigation of 806,000 acres of land in South Dakota, 1 million acres of land in North Dakota and a similar amount in Montana. Those irrigation developments have, to the largest extent, never been achieved. Not one gallon of Missouri River water is being used for irrigation in South Dakota under a facility authorized by the 1944 Flood Control Act. In exchange for this, the overwhelming majority of the power generated in South Dakota on these dams is exported out of state. Chart IX shows the distribution of power from South Dakota dams during federal fiscal year 1980. This allocation changes slightly from year to year but its basic point that other states receive more power benefits from the dams constructed in South Dakota than does South Dakota continues to be true year after year after year.

While the loss of 530,000 acres of land in South Dakota is providing substantial navigation, flood control and power benefits for our neighboring states, South Dakota itself is receiving little or no benefit in a substantial economic sense from the construction of those reservoirs. Chart X is a representation of water used in the member states of the Western Governor's Policy Office. As will be noted, no state in that organization uses less water than South Dakota. In fact, our sister State of Nebraska who is complaining loudly about South Dakota's relationship with ETS! is one of the larger water users among the western states. This chart shows in a graphical manner why at the time South Dakota was confronted with a need to make a decision on ETS!, it was felt that the State should do these things
which will enable it to gain benefits from the development under the 1944 Flood Control Act that other states downstream from us have been receiving for the last 20 years.

One thing that was reserved to the State of South Dakota was the right of the upper basin states to allocate water pursuant to their state laws. In fact, the 1944 Flood Control Act is notable as an expression by Congress of State's rights in the allocation of waters during an era when TVA and the Boulder Canyon Project Act represented substantial steps in the opposite direction—total federal control of the allocation and use of water resources. Chart XI shows the language of Section 1B of the 1944 Flood Control Act. That section was enacted into law at the insistence of the western states and is commonly known as the O'Mahoney-Milliiken Amendment. Its plain language is that states lying wholly or partially west of the 98th meridian (South Dakota and the upper basin states) have the right to allocate the waters in their states for beneficial consumptive uses even if such allocation represents an impairment in navigation uses of the river.

It is interesting to note that there was no doubt in the mind of Congress when this provision was enacted that this is exactly what Congress intended. In fact, Senator Milliken stated during the hearings on the 1944 Flood Control Act:

"As I pointed out the other day, you take navigation here. The people are figuring on a 9 foot channel or a 12 foot channel and, assuming, Congressman, that that reflects a conflict of water use—I don't know whether it will or not; the figures are so conflicting here that I cannot reach a decision. But assume that it would. In the meantime they have built their barges, they have built their docks, they have established their track sidings. They have built their wharves, they have built all their accessories, and then they would be claiming to be a vested interest recognized by Congress. Now these are the things that we got to guard against."
In addition, remarks from other Congressmen indicated clearly that they understood the meaning of this provision. Representative Lente of North Dakota simply stated, "We are not going to take the water from the people in the states where it originated so that some fellow may float a yacht down the lower Mississippi Valley, while the people and their cattle in the upper regions go hungry on account of the lack of food and water."

House Debate on HR 4465 (Cong. Rec., 78th Cong., Second Sess., page 4213). Representative Dirksen from Illinois stated "Now come the folks from this area, where water is a priceless commodity, and say that before we take away all their water for navigation purposes to sustain a barge or a vessel that may haul commodities, we believe preference should be given to beneficial consumptive uses." Id at page 4215. Representative Dirksen later said "They know as no other person can know, from a lifetime of experience what water means and they seek assurance that the basic daily needs of their people will not be neglected and that navigation should be subordinated to essential needs. Is that asking too much?" Id at page 4216. Senator O'Mahoney himself stated that "the purpose has been at all times to protect the historic and traditional rights of the people of the west to use the waters rising in the west in a manner that has been recognized by law and by court decision for almost 100 years." Id at 8420. There can be little doubt that the meaning of the O'Mahoney-Milliken amendments was to guarantee to the states the right to allocate waters within their boundaries without regard to the impact of such allocation on navigation.
Why ETSI and South Dakota?

In 1974 the Wyoming State Legislature authorized the Wyoming State Engineer to issue groundwater permits from the Madison formation to ETSI. Those permits, as eventually issued, entitled ETSI to withdraw an average of 15,000 acre feet of water a year from the Madison formation. Individual yearly withdrawals could go up to 20,000 acre feet per year as long as the long term average was not violated. Chart XII is taken from the Bureau of Land Management Environmental Impact Statement on the ETSI Coal Slurry Pipeline. It shows the relative location of ETSI's proposed well field in Niobrara County. The well field is located immediately adjacent to the South Dakota Wyoming border. The concentric lines on the chart indicate the number of feet in drawdown that would experienced by the potentiometric head in the lifetime of the ETSI project. It will be noted from the chart the City of Edgemont's water level would drop approximately 275 feet. This would necessitate the drilling of new wells not only for Edgemont but for numerous ranchers and other communities in the area. In addition, flow in the Fall River which runs through the municipality of Hot Springs would be reduced to such an extent that Hot Springs wastewater treatment costs would increase by approximately $100,000 per year. Finally, the flow reductions would also affect environmental and esthetic values in streams in the Black Hills of South Dakota. The Black Hills are located within the Madison outcrop in Custer, Pennington, Lawrence and Meade Counties in South Dakota. This potential use of groundwater in Wyoming presents an unacceptable threat to existing uses of water in the State of South Dakota. In order to prevent this potential damage, the State found itself facing long and protracted litigation that may have preserved the status quo but would not have presented any net gain to either South Dakota, Wyoming or ETSI.
In addition to the need to eliminate ETSI's threat to South Dakota's Madison Aquifer water supplies, there exists in that area of South Dakota between the Oahe Reservoir and the Black Hills a very real need for good quality drinking water for both livestock and humans. In fact, some communities and ranches in this area have naturally occurring contents in their water supplies that are 3 to 30 times the EPA primary drinking water standard. It has long been the dream of western South Dakota residents to bring Missouri River water westward to cure these and other deficiencies in their water supplies but physical and, ultimately, economic barriers prevented this from happening.

It soon became apparent to the western residents of our State that the only practical means of achieving their dream was through a massive subsidy either from the Federal government or from the emerging energy industry in Wyoming.

Finally, as is apparent from the preceding section of these remarks and the accompanying charts, South Dakota has received little that was authorized under the Pick-Sloan Plan that has provided so much benefit in navigation, flood control, and hydropower to the downstream states. While Nebraska which gave up virtually no land to the Missouri River Reservoirs has received 222,800 acres of Pick-Sloan Irrigation projects, not one acre of South Dakota land is irrigated from the Missouri River by a Pick-Sloan diversion. With cost sharing rapidly becoming the word of the day in Federal water development, it was apparent that South Dakota's chances of obtaining this Pick-Sloan Irrigation development were going to get slimmer unless she developed a revenue source currently unavailable to South Dakota comparable to Nebraska's irrigated economy and Wyoming's, Montana's and North Dakota's coal, oil and gas reserves.
South Dakota's relationship with ETSI prior to 1981 had a long and stormy history. As far back as 1974, ETSI and South Dakota have been cussing and discussing the potential for an arrangement that would avoid a showdown over the Madison Formation. In 1977, the South Dakota Legislature passed a bill authorizing the grant of a water right for Oahe Reservoir water to ETSI that ETSI could have used merely as a backup for its Madison Aquifer source. That bill was vetoed and an attempt to override it failed in the State Senate by one vote.

It was not until May of 1981 when ETSI's South Dakota Counsel happened to run into me in the Capitol cafeteria one day that I mentioned an interest in avoiding what seemed to be inevitable litigation. The resulting conversation grew into more formal negotiations, and it was not until this process began that it became apparent that ETSI was willing to look to the Oahe Reservoir as a primary source of water instead of a backup and hold its Madison Formation water rights in reserve to be used only if Missouri River water were physically or legally available. In our negotiations we attempted to persuade ETSI to give up its Madison Formation water rights, but it soon became apparent that no deal containing that condition could be struck.

Once ETSI's willingness to use Missouri River water as a primary source became apparent, the other main provisions of the contract to provide water to western South Dakota communities along the pipeline and money to the State's Water Facilities Construction Fund were hammered into place after long and arduous negotiations, a special session of the South Dakota Legislature, and longer and more arduous negotiations to actually draft the technical agreement. Once this agreement began to take shape and it appeared that our goals with respect to preserving the Madison Formation, providing
water to western South Dakota communities, and obtaining money for water
development were actually achievable, it became impossible for South Dakota
to reject this virtual bird in the hand in favor of protracted and uncertain
litigation that might possibly accomplish only one of our goals.

The Deal

Charts 13, 14, 15, 16, and 17 outline the basic agreement between the South
Dakota Conservancy District, which is the contracting entity for the State of
South Dakota, and ETSI. The basic $9 million payments which begin with
construction of the coal slurry pipeline proper are indexed to the GNPD
(gross national product deflator). Our calculations show that if the GNPD
behaves over the next 50 years exactly as it did during the last 50 years,
the Indexed payments could total approximately $1.4 billion over the life of
the contract.

Negotiating this contract and structuring the arrangement presented several
unique and sticky legal problems. The first was the provision of the South
Dakota State Constitution which prohibits the legislature from granting to
any private concern any special privilege, franchise, grant, or immunity
whatsoever and prohibits the legislature from enacting any special
legislation where the same purpose can be accomplished through a law of
general applicability. We have preserved the legality of this transaction in
this regard by enacting a statute of general applicability which allows the
South Dakota Conservancy District to apply for and to obtain water rights for
the purpose of transferring them for consideration to third persons for
ultimate use in energy development both in and out of South Dakota. The
general provisions of the agreement as presented here in Charts 13 through 17
were, in fact, presented to the legislature. In reality, however, the
legislation made no specific mention of ETSI and the South Dakota Conservancy District could, in fact, have applied for and transferred the water rights to energy users other than ETSI. Nothing in the legislation mentioned ETSI, and nothing except our desire to prevent the legislation from being repealed in the January, 1982, Legislative Session required us as a matter of law to consummate the proposed arrangement with ETSI.

In addition, the application by the South Dakota Conservancy District for a water right passed through the same legal and administrative procedures as any other water right application in South Dakota. The approving body, the South Dakota Water Management Board, held over 40 hours of administrative hearings on this permit application alone. The application was submitted to the same rigorous tests and scrutiny that this Board administers to all other permit applications, and the Board, as a result, voted unanimously to approve the permit noting that ETSI as ultimate recipient of the permit had the present intent to appropriate the water, that the project was feasible, that unappropriated water was available, and that the proposed project was clearly in the public interest of the citizens of South Dakota.

The other major theoretical problem involved the basic ability of the State to convert its interest in water held for ultimate use by individual members of the public into other assets, namely cash. Our legal analysis is that, among other things, the arrangement described above whereby the Conservancy District obtains the water right and the consideration for its transfer is placed in a trust fund for water development administered by the Conservancy District preserves this transaction in this regard. Water rights, after all, are sold every day in many of the western states. If private individuals that can do this with property acquired from the State,
Independent authority created by the State for water development purposes should be able to do the same.

In addition, a great deal of attention was paid to the legal rights of the states downstream from South Dakota. After analysis of the pertinent provisions of the Flood Control Act of 1944 discussed above and a review of some of the facts pointed out in the next section, it was determined that South Dakota's allocation of Missouri River water to a coal slurry pipeline originating in Wyoming stood on firm legal ground vis-à-vis downstream states.

What Are The Other States Complaining About?

On a substantive basis, the downstream states claim ETSI and, even more so, additional diversions of this type will impair their claimed rights to Missouri River water for navigation, municipal, domestic, irrigation, pollution assimilation, fish and wildlife, recreational, and esthetic purposes. On a legal basis, their complaints apparently center around their claim that ETSI is an inter-basin transfer and also around Section 6 of the Flood Control Act of 1944 which authorizes the Army Corps of Engineers to enter into contracts for surplus water for municipal and industrial purposes.

Chart 18 compares the average ETSI withdrawal at the rate of 50,000 acre feet per year with the discharge of the Missouri River at the Oahe Dam near Pierre, South Dakota. As you will note, ETSI's withdrawal represents only 0.28% of the average annual 1981 discharge of the Oahe Dam. In contrast to this, most measuring devices have an inherent error of 5%. The result is that it would take more than 17 ETSI's at 50,000 acre feet per year each to create a withdrawal from the Oahe Reservoir large enough to be measured at
Pierre, South Dakota. Because of contributions to the Missouri River
downstream from Pierre, the effect of 17 ETSI's still could not be measured
with any certainty when the river passes through Sioux City, Iowa.

As a further comparison, it should be noted that each year at the end of the
navigation season releases from the Gavins Point Dam, which is furthest
downstream on the Missouri, are cut from approximately 32,000 cfs to about
15,000 cfs for the purpose of conserving water in storage and concurrently to
maintain stream flows for municipal, domestic, and other uses including water
quality downstream. Whether such large releases during the off season are
necessary for downstream purposes is problematic. The Corps of Engineers,
however, has determined that releases of this magnitude can be made without
impairing other requirements and purposes of the reservoirs. This cut-back
in flow lasts for approximately 4 months until the beginning of the next
ensuing navigation season and represents a reduction in Missouri River flow
of approximately 53%. We are unaware of any inability of the Missouri River
to meet downstream desires other than navigation during this period when its
flow above Sioux City is cut to 47% of navigation season releases. The
Missouri River, after all, is a gaining stream and picks up, on an average,
33 million acre feet of water every year below Sioux City in addition to an
average contribution of 21 million acre feet of water from the watershed
above Sioux City.

Another interesting figure comes from a report written by the Missouri River
Basin Commission, a joint federal-state entity governed by Federal agency
representatives and representatives appointed by the governors of all 10
Missouri River Basin states, was published in December, 1978 at the request
of the now nearly defunct Water Resources Council. That report entitled
Upper Missouri River Basin Water Availability Assessment for Coal Technology Requirements addressed the water necessary, and its availability, for probable energy development in the States of Wyoming, Montana and North Dakota. In its baseline assessment, the Missouri River Basin Commission projected that, by 1985, 150,706 acre feet of water per year would be necessary to meet coal development requirements in these States. 30,488 acre feet of this total would be used for coal slurry pipelines. By the year 2000, the Commission projected that 237,481 acre feet per year with 78,056 acre feet per year going to coal slurry pipelines would be necessary for energy development. These figures are interesting not because they represent relatively large amounts of water, but because the total amount projected for the year 2000 even if it were all diverted from the Oahe Reservoir could still not be accurately detected by a gauge in the stream below the Oahe Dam. The projected 2000 demand is less than one-half of the annual evaporation from the Oahe Reservoir and should certainly be no cause for alarm in light of the 53% reduction in stream flow that occurs every fall at the close of the navigation season.

With respect to the inter-basin transfer issue, the legal questions here are easily resolved. The United States Supreme Court has on three separate occasions declared a diversion's status as an inter-basin transfer to be irrelevant from a legal perspective. New Jersey v. New York, 283 U.S. 336 (1931); Connecticut v. Massachusetts, 282 U.S. 660 (1931); Wyoming v. Colorado, 259 U.S. 419 (1922). I am sure these cases will be examined in great detail during this conference, and I need not repeat that exercise here. I do, however, draw your attention to Justice Holmes' opinion in New Jersey. In that case the State of New York proposed the diversion of 600 million gallons of water a day from the Delaware River into the Hudson River.
basin. New Jersey's complaint against this proposed diversion resembles nothing more than a script for the cries currently being made by downstream states against South Dakota's proposed diversion for ETSL. It was in New Jersey that Oliver Wendell Holmes wrote his famous line, "A river is more than an amenity, it is a treasure." 283 U.S. @ 342. Shortly thereafter, Justice Holmes made it abundantly clear that the issue of an inter-basin transfer is truly irrelevant and serves only as a make-weight argument. Justice Holmes said, "the removal of water to a different watershed obviously must be allowed at times unless States are to be deprived of the most beneficial use on formal grounds. In fact, it has been allowed repeatedly and has been practiced by the States concerned." 283 U.S. @ 343. Justice Holmes then went on to allow the diversion from the Delaware River basin in the amount of 440 million gallons daily. According to the best information available to us, this amounts to 6% of the average flow of the Delaware River. As was discussed earlier, nothing approaching that high percentage of Missouri River flows is currently being contemplated for diversion to energy industry use.

In addition, it is a bit difficult to understand how the States of Nebraska and Missouri, for instance, can, in all honesty, complain about inter-basin transfers. Nebraska, while engaging in no inter-basin transfers itself, is downstream on the Platte River and is the direct or indirect beneficiary of at least 3 inter-basin transfers from the Colorado River Basin into the Platte River Basin. The largest of this amounts to 505,000 acre feet of water yearly in the Denver, Colorado area. If these inter-basin transfers were not being made it is difficult to predict how much worse the water disputes between Nebraska and its upstream neighbors on the Platte would be.
Missouri takes this process one step further and actually exports water out of the Missouri River Basin at the town of Springfield. This diversion consists of a water supply intake within the City of Springfield and within the Missouri River Basin and a wastewater outfall within the City of Springfield lying outside the Missouri River Basin. South Dakota acknowledges that Springfield's diversion of water out of the Missouri River Basin may be necessary in order to distribute water from one side of the City to the other. It does not appear to us, however, that Missouri's necessity is any less than South Dakota's need to use industrial water development to subsidize delivery of Missouri River water to western South Dakota towns where the radium concentrations exceed the EPA limits by a factor of 30. The inter-basin transfer at Springfield amounted to 16,800 acre feet in 1978, a diversion of the same order of magnitude as that proposed by ETSI. A similar inter-basin transfer of water is conducted by the City of Butte, Montana in its municipal water supply. All in all the Missouri Basin States Association has identified four inter-basin transfers importing water into the Missouri River and two inter-basin transfers supporting water from the Missouri River Basin. (Chart 19) The net result is that the Missouri River Basin is a net gainer of approximately 644,000 acre feet of water yearly. It is difficult to understand how Missouri River Basin States can be complaining about inter-basin transfers when all of the basin states and particularly those riparian to and downstream from the Platte River, have been the beneficiaries of such actions for a long period of time.

Finally, with respect to the interbasin transfers, I submit that ETSI is not an inter-basin transfer in the traditional sense of that word. Water is not being used to develop resources located outside of the Missouri River Basin. It is Missouri River water that is used to develop Missouri River Basin
resources-Wyoming Coal. Water is consumed and the beneficial use is initiated within the Missouri River Basin near Gillette, Wyoming.

Logic dictates that there is little difference between this use of Missouri River water to develop in-basin coal and the use of water by an Omaha brewery which may ship its products into eastern Iowa or the actual export of raw water out of the basin to the extent of 54 million acre feet per year at the mouth of the river above St. Louis. With respect to this last figure, the additional water released from Gavins Point Dam during the navigation season during 1980 amounted to approximately 8,100,000 acre feet of additional water released for navigation purposes. Navigation tonnage during 1980 totaled 3,009,612 tons. The cargo carrying efficiency of this navigation water was, therefore, 0.37 tons per acre foot of additional water released. ETSI on the other hand will deliver in its first pipeline 37,500,000 tons of coal with only 20,000 acre feet of water. The carrying capacity of water to be used by ETSI is 1,875 tons per acre foot. The water use efficiency of ETSI's first coal slurry pipeline, will, therefore, be nearly 507,000% greater than that of the increased water released for navigation during the 1981 season. This comparison, it should be noted, includes only the increased flows released from the upper basin at Gavins Point Dam and does not include any of the 33 million acre feet of contributions occurring below that point.

Finally, with respect to the argument that Section 6 of the 1944 Flood Control Act requires water service contracts out of the mainstem reservoir to be executed by the Corps of Engineers, it can only be said that those who are making this claim ought to review their legislative history and the very nature of the Pick-Sloan program. Section 6 states:
"That the Secretary of War is authorized to make contracts with States, municipalities, private concerns, or individuals at such prices and on such terms as he may deem reasonable for domestic and industrial uses for surplus water that may be available at any reservoir under the control of the War Department: Provided That no contracts for such water shall adversely affect than existing lawful uses for such water."

A reading of this Section begs two questions: What is surplus water? And is the authority granted the Army Corps of Engineers under Section 6 exclusive?

With respect to the first question the Army Corps of Engineers have a regulation which states "The term surplus water means water trapped or stored in a reservoir project which is not utilized to fulfill an authorized project purpose." ER 1105-2-20 (28 Jan. 1982). If that is the Army's definition of surplus water, it is clear from the legislative history that the water to be used by ETSI is not surplus to any project purposes.

The Oahe Reservoir, which is the source of water for the ETSI project was originally authorized by the Flood Control Act of 1944. Section 9(a) of that Act authorized the construction of the Oahe Reservoir as described in Senate document No. 191, 78th Congress, 2nd Session (April 1944). At pages 115-116 of that document, the Oahe Reservoir is described as containing storage to Irrigate an area of 750,000 acres along the James River in South Dakota. Page 117 of the document lists additional smaller pumping units which could also be served out of the Oahe Reservoir and other reservoirs in South Dakota. The dam, therefore, was authorized and constructed with an Irrigation function for service to more than 750,000 acres of Irrigation. At the present time, diversions to serve only approximately 190,000 acres of the full potential capacity are specifically authorized by Congress. This leaves
a surplus reclamation capacity in the Oahe Reservoir capable of serving somewhere in the neighborhood of 560,000 acres. It is unlikely that this reclamation capacity nearly all of which is still carried as a function of the Pick-Sloan project will be used for irrigation until further specific diversions are authorized by Congress. Under Section 9(c) of the Reclamation Project Act of 1939, the Secretary of Interior is authorized to make interim use of reclamation projects if he determines that such use will not interfere with the irrigation function of the project. It is clear in this case that where in excess of 500,000 acres of irrigation capacity awaits further Congressional authorization in order to be utilized, the amount allocated to ETSI will not present any interference with irrigation development in South Dakota over the next 40 to 50 years.

The bottom line is that ETSI's water is not surplus to the reclamation function of the Pick-Sloan Plan but is being utilized as an integral part of that function. In fact Section 9(c) of the 1944 Flood Control Act specifically requires the Secretary of the Interior to operate the reclamation portions of the Pick-Sloan development under Federal Reclamation Law, and the Reclamation Project Act of 1939 is a portion of the general body of Federal Reclamation Law.

In answering the first question in this matter it is easy to see that the second question is also answered. The Army Engineers' authority to contract surplus water is inapplicable in this case and, therefore, is not exclusive in its application.
Conclusion

In this paper I have presented a basic outline of the nature, history, and extent of South Dakota's involvement with ETSI Pipeline Project and its proposal to develop a coal slurry line from Wyoming to Arkansas and Louisiana. It is South Dakota's position that the actions taken were not only reasonable under the circumstances but were also perfectly legal and within the envisioned purposes of the Pick-Sloan program when it was originally authorized in 1944.

I do not rest, however, on our own analysis of the reasonableness of South Dakota's actions. The downstream states have received practically all of the benefits that they bargained for in the passage of the 1944 Flood Control Act. South Dakota and her upstream sisters on the other hand, have received practically none of those benefits. An Iowa economist funded by the Iowa General Assembly to analyze the impact on Iowa of Missouri River diversions, essentially concluded the same thing. It is apparent from his remarks included in the last two charts of this presentation that when South Dakota's action is subjected to rigorous analysis even her opponents must agree with what South Dakota did in establishing her relationship with ETSI. The Iowa report written by David Osterberg concludes with a final word on ETSI.

A Final Word on ETSI

The ETSI slurry pipeline, the subject of many recent newspaper articles, has come as a warning shot to Iowa. Coming in a low water year when navigation has been reduced, talk of decreasing the flow made citizens and policy-makers aware of all plans to make the Missouri Into a smaller river.
Governor Janklow of South Dakota has claimed that the new pipeline will remove water equal to one-tenth the annual evaporation on Lake Oahe and that downstream users should "quit being selfish" about the Missouri (UMC 1981, p. 8,9). There is merit on both counts: (1) If 50,000 fewer acres flowed past Sioux City in a year, river gauges would have trouble measuring the loss; (2) South Dakota has a claim on water from the River. Iowa has gained the benefits of flood control, farmland creation, navigation and cheap hydropower. Iowa has also suffered the destruction of thousands of acres of wildlife habitat and recreation areas and has a continuing serious problem with degradation. However, Iowa has received the benefits promised. South Dakota has not.

South Dakota receives power from the Missouri River dams and enjoys four "Great Lakes" which are reputed to have the best walleye fishing south of Canada. However, South Dakota has not received the irrigated acres it was promised to make up for the 500,000 now under the four Corp-built lakes.

All Basin states would like to see the Missouri used within the Basin. This remains true even after the ETSI deal. South Dakota greed to the ETSI pipeline first because it prevented ETSI from taking groundwater from the Madison formation and drawing down the potable water sources of South Dakota towns bordering the ETSI pump field in Wyoming. Second, the pipeline will carry water to western South Dakota towns along its path. South Dakota is protecting its water resources.