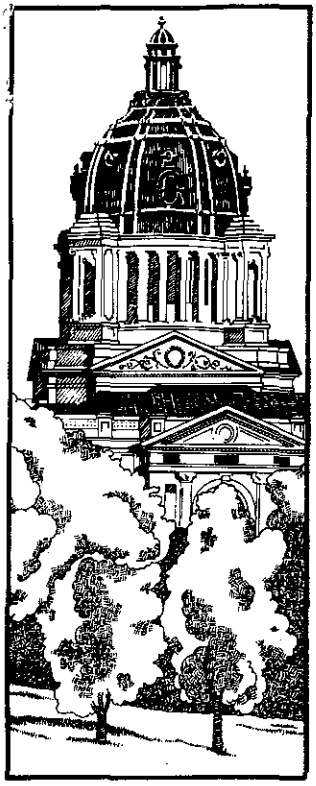

South Dakota

Public Utilities Commission

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December 7, 1992

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DEC 07 1992

SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

Marshall Damgaard, Executive Director
Public Utilities Commission
State of South Dakota
State Capitol Building
Pierre, South Dakota 57501

RE: IN THE MATTER OF THE APPLICATION OF THE SOUTH DAKOTA INTRASTATE PIPELINE COMPANY FOR APPROVAL OF INITIAL RATES AND TARIFFS DOCKET NO. NG92-005

Dear Mr. Damgaard:

Enclosed are copies of the testimony and exhibits of the following Staff witnesses in the above-captioned proceeding:

Gregory A. Rislov
Steven M. Wegman

On Monday, December 7, 1992 (via Federal Express or hand delivery), Staff also provided South Dakota Intrastate Pipeline Company and the intervenors (list attached) to this docket with Staff's testimony and exhibits.

Sincerely,

Greg Rislov

Greg Rislov, Director
Fixed Utilities Division

Enclosures

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BEFORE THE

PUBLIC UTILITIES COMMISSION

STATE OF SOUTH DAKOTA

SOUTH DAKOTA INTRASTATE PIPELINE COMPANY

DOCKET NG92-005

TESTIMONY OF

GREGORY A. RISLOV

ON BEHALF OF THE COMMISSION STAFF

DECEMBER, 1992

BEFORE THE
PUBLIC UTILITIES COMMISSION
STATE OF SOUTH DAKOTA

South Dakota Intrastate Pipeline Company
Application for Authority to Establish
Rates for Natural Gas Transmission Service
in South Dakota

Docket No. NG92-005
Testimony of Gregory A. Rislov
On Behalf of the Commission Staff
December, 1992

Q. Please state your name, business address, and occupation.

A. Gregory A. Rislov; my business address is: State Capitol Building, Pierre, S.D. 57501. I am presently employed as Director of the Fixed Utilities Division of the Public Utilities Commission.

Q. What is your educational background and experience?

A. I was graduated from the University of South Dakota with both a Bachelor of Science in Business Administration degree, majoring in Accounting, as well as a Master of Business Administration degree. I have been employed by the Commission since July of 1976. I was a utility analyst from 1976 until my appointment in April of 1984 as Director. The main focus of my work has been general regulation of jurisdictional electric, natural gas, and telecommunications utilities. Rate regulation has been a significant portion of that work.

Q. Have you previously testified before this Commission?

A. Yes. I have testified and/or provided exhibits in approximately 40 major electric, natural gas, or telecommunications revenue requirements dockets.

Q. What is the purpose of your testimony in this proceeding?

A. I shall address both in general and in specific issues related to the filing. I shall also provide testimony and exhibits which develop the appropriate rate to be charged by South Dakota Intrastate Pipeline Company (SDIPC) for natural gas transportation service. I have, in the development of my recommended rate, incorporated for comparative purposes, sales estimates provided by Staff Witness Steve Wegman.

GENERAL ISSUES

Q. Are there any issues brought about by this filing which are new or unique?

A. There are issues which may not be unique to regulation, but which are unique to this Commission. This is the first intrastate natural gas pipeline subject to our rate jurisdiction. This is also a new company. Our jurisdiction over natural gas and electric distribution companies began in July of 1975, and at that time all of them were ongoing concerns. We have established rates for new telecommunications companies, but for the most part the new telecommunications companies were to provide either in-kind substitutions or enhancements to service already being rendered. In this case the service will be new or unique in character.

Q. Have these "new" or "unique" issues complicated the processing of this filing?

A. Yes, they have. In order to develop an appropriate rate for service provision, one must be aware of the cost of the various elements necessary to provide the service. A cost may be "fixed" or constant within a given range of service provision. A good example is depreciation of the actual pipe through which gas

is delivered. If depreciation is $209,000 per year, and SDIPC transports 418,000 Mcf of gas, the rate must nominally include $.50/Mcf for depreciation. If 836,000 Mcf are transported, the rate must then only include $.25/Mcf for depreciation. Note that the amount of depreciation hasn't changed, but the per unit recovery of depreciation costs has. The point is that we are obligated to estimate both the costs of service as well as the actual throughput of gas in order to establish a fair rate. Cost in this sense (the rate to the consumer) is not only determined by the nominal cost of the property, but by the throughput of the commodity as well.

Q. Is the process of estimating costs or sales includable for ratemaking "new" to this Commission?

A. In a sense, no. But certainly the scope of the estimation process prevalent and necessary for establishment of rates in this docket is far greater than what has been required in past cases. Virtually every number is heavily dependent on one or more estimation processes.

Q. Which estimates are of the greatest concern?

A. While we are naturally concerned about all potential inaccuracies, we realize that the estimation process inherently leads to inaccuracy. Therefore, if this pipeline is to become operational, we have no choice but to recognize that some of the data used may be quite imprecise. Regardless, one must attach a large amount of concern to the estimated sales or throughput.

SALES/CONVERSIONS

Q. What is the relative significance of the sales estimate?

A. Although this pipeline is by law a regulated monopoly, the mere fact that it is so offers no guarantee that it automatically will become a profitable venture. This company will need to achieve a certain level of sales in order to both keep rates affordable and generate satisfactory earnings. As with most new businesses, it is expected that this company must operate unprofitably through a growth period until a satisfactory level of sales can be gained. If the estimate of the initial year's sales as well as the subsequent years' conversions to natural gas are substantially overstated, one can expect larger operating losses, operating losses extended over a longer period of time, and potentially higher rates.

Q. Do you believe that SDIPC has overstated potential sales?

A. Staff Witness Wegman will address this issue in detail. It does appear however, in light of actual experience that has occurred on other systems that SDIPC has overestimated both the initial sales as well as the rates of conversion.

Q. What are the consequences of an overstated estimate?

A. SDIPC (the transmission entity), eventual local distribution companies, and customers are all concerned about sales as the higher the sales, the lower the rates and the greater the profitability. SDIPC is not the only party at risk and of concern to us in this matter as others will be relying on the conclusions in this docket for purposes of planning and decision making. Certainly the solvency of any business depends on the development of the market. It is imperative to properly gauge the market when making business decisions.

Q. Given that provision of natural gas is a monopoly service and not subject to competition, may not Staff be overly concerned about the sales estimate?

A. This pipeline will not enjoy territorial protection, so its monopoly status will depend on the willingness of pipeline competitors to challenge SDIPC. Given the size of the market, any immediate and direct challenge would be surprising. However, SDIPC and any connected distributor will be competing directly with propane, fuel oil, and electrical suppliers. It is important to note that natural gas is a fuel source used primarily for space heating and water heating. Everyone in the offered estimate of sales is already heating their homes and water, and if acting rationally, will convert to natural gas only if and when natural gas proves to be a lower cost source than what currently is being used. If the cost of conversion is significant and the potential savings either limited or nonexistent, there is no rational reason to convert fuel sources. There does not exist, as stated before, a guarantee that the necessary level of sales will develop.

Q. Isn't it unusual for Staff to be concerned about a utility overstating sales, given that the higher the sales number, the lower the rates?

A. Our interest, in concern of both the customer and the company, is in being fair and making proper measurements. Regardless, no matter how high rates could or should be under a regulated cost of service regimen, if the cost of natural gas exceeds the cost of competing energy sources an economically rational user will use a lower-priced source. In other words, the total price for natural gas should face a market ceiling based upon the price of fuel oil, propane, and electricity and the cost to convert to usage of natural gas. If the "market" price level is less than the cost of providing the service as determined on a regulated basis, any usage of the rate developed on regulatory principles should result in diminished or a complete loss of sales. Any investment in time or money in the natural gas business would be subject to loss.

Risk

Q. Is it the Commission's responsibility to ensure that these companies operate profitably?

A. Not necessarily. There are business risks that simply must fall upon the shoulders of the operating companies. Even so, we must be concerned that customers are offered adequate and reliable service at a fair and reasonable rate. We are also concerned that customers which undertake the expense of fuel conversion facilities do so with a reasonable expectation of benefitting from the conversion.

Q. Are there any other unidentified risks that may have to be borne by those involved in the sale and use of natural gas?

A. Yes. There must be an awareness of the possibility of bypass and fuel switching on the part of larger usage customers.

Q. What is "bypass" and "fuel switching"?

A. Bypass occurs when a customer uses facilities other than those provided by the public utility for delivery of service. A hypothetical example of bypass would be the State Capitol Complex constructing its own facility to the SDIPC pipeline, thus bypassing the distribution company operating in Pierre. The distribution company would lose the contribution generated by those sales. Fuel switching is simply usage of alternate fuels when cost dictates. Frequently large customers have the ability to burn more than one type of fuel. This dual ability along with the amount of fuel consumed often gives these customers negotiating leverage which tends to lower their costs, or alternatively, lowers the contribution to the utility. This loss in contribution must then be borne by the other customers or by the company providing service.

Q. Given all of the above, has Staff determined that SDIPC'S sales estimate should not be considered for development of the rate?

A. As stated above, estimates are inherently inaccurate. Staff's forecasted sales are also based upon estimates, as SDIPC's, and no doubt will fail in some degree to portray what actually occurs. Regardless, we recognize that any new business venture must rely upon estimates and given that business's willingness to absorb the risk of loss, and further given that no party has conducted an extensive market analysis, it seems that Staff's and SDIPC's sales estimates could provide planning and decision parameters for the ratemaking process. Staff's calculation of sales tends to depict market conditions which do not support profitable operation of this pipeline for the intermediate term given the current prices of competitive fuels. Staff's function is to develop rates based upon sound regulatory principles. SDIPC is willing to use their sales estimates as a benchmark for rates, and given the overall degree of uncertainty prevalent in this docket and the somewhat limiting influence of alternative fuel market prices, Staff has calculated a rate based upon Staff's revenue requirement and SDIPC's sales projections.

Elements of Service

Q. Of what significance is the transportation (SDIPC) cost in the rate paid by the ultimate consumer?

A. There are three major elements of cost which determine the retail rate. The first is simply the cost of gas at the pipeline receipt point. The cost of gas is in part determined by the wellhead price, gathering costs, and transportation to SDIPC's delivery point. There are other potential costs (such as balancing and brokerage fees) which are not as significant, but may still be part of the cost of

gas.

The second element is the transmission or transportation cost to bring gas to the city gate. This cost is the concern of the current docket, i.e., the rate payable to SDIPC.

The third element of cost is the cost necessary to distribute the gas. Consumers are normally most familiar with the distribution company or municipality which distributes the commodity. The distribution company takes delivery of the gas at a point near the city limits and is responsible for providing service to or past the customer's meter.

The significance of the transportation rate is that in order to consider the marketability of the gas, one must consider the cost of all three elements in combination in order to determine the ultimate rate to the retail customer.

Q. Should Staff be concerned in this transportation cost docket about the other two elements of cost?

A. We must be concerned as there is an interdependence between the transporter and the distributor when considering the marketability of the commodity. The marketability will determine the sales. We can be fairly confident that any attempt, at a minimum in the first few years, to fully reflect service costs in the rates will result in pricing above the price of competing fuels. Therefore there appears to be the need, assuming that it's legally possible, to initially price below the normally derived regulatory rate. If this creates a burden, the Commission must determine how this potential burden is to be borne between the distributor and the transporter.

Q. Have you any recommendation?

A. No. Until there is a filing on the part of a distributor, it may be premature to even try to develop an answer to this potential problem. I do believe, however, that the Commission should be aware of the potential need to develop some sort of approach.

Levelized Rates

Q. SDIPC has requested usage of levelized rates. What are levelized rates and how do they differ from the normal rate-setting process?

A. Levelized rates are developed by computing the cost of service over a period of years, and then averaging the composite of the annual costs of service in order to develop an average rate to be charged for the entire period of time. Rates are normally established by reviewing the cost of service for one year, and then determining the rate on the basis of that one year's cost.

Q. Do you support the levelized rate concept advanced by SDIPC?

A. I have concerns. Notwithstanding those concerns, I realize that if the goal is to bring natural gas to the proposed towns along the route, and if levelized rates are a necessary element toward accomplishment of that goal, they will simply have to be used.

Q. Could levelized rates result in unfair treatment to the retail customer?

A. It's speculative. One fact that is a virtual certainty is that each and every customer will have an array of options; no one will be forced to use natural gas. If the levelized is deemed unsuitable by the customer, that customer should

avail him- or herself of another option. Regardless, if natural gas is not available given the absence of a levelized rate, it follows that there would be no choice to make.

Q. Has Staff adopted the initial levelized rate period of ten years which was proposed by SDIPC?

A. There is a degree of skepticism relative to the ten-year levelized rate period. We are aware that SDIPC will not commit to maintaining that rate for the entire ten years. Understandably they wish to file, if necessary, to change the rate as circumstances dictate. In a sense any changes would make the ten year calculation merely an academic exercise, although the average would conceivably be a starting point for any subsequent adjustment to the cost of service.

My exhibits are presented on both a five and ten year levelized basis.

Q. Why have you calculated a five year levelized rate?

A. A five year period seems more reflective of a period of time over which a rate could be sustained. Given the lack of theoretical justification for the levelized rate in general, the five year rate would be an option for Commission consideration. The five year levelization results in higher rates for those years in comparison to the ten year levelized rate.

Q. SDIPC has also proposed levelized rates, albeit at a different level, for the second ten years of operation. Why has Staff not proposed something similar?

A. If the Commission would decide to levelize rates over a twenty year period, it would make more sense to consider doing so with several years' operating

experience and known costs. I see no reason to speculate now on an event occurring ten to twenty years in the future, and especially so when we have no hard data to use in development of the rate. Regardless, I doubt that approval now of such a rate would be binding on future Commissions.

There is also a possibility that the pipeline will be extended to additional communities. If so, new rates may be required to incorporate altered cost relationships which may eventuate with the extension(s). Of course if new rates are necessary, the current levelization would be in need of revision as well.

Q. If what you suggest above is true, what is the point in stating a levelized rate?

A. It would provide a pricing indication, a pricing intent, which are both conditional. Even if the rate was subsequently changed, it could still be levelized on a revised basis for a given period of time. It should be recognized however, that the existence of a levelized rate is no guarantee of an unchanged rate.

COST OF SERVICE

Rate Base

Q. Please discuss your development of rate base.

A. My determination of rate base is found on Exhibit_(GAR-2). The exhibit lists SDIPC's requested rate base estimate, adjustments to rate base, and Staff's estimated rate base. This first year rate base is then carried to Exhibit_(GAR-7), column (b), and subsequently extended, with further adjustment, for nine years in order to develop a levelized cost of service.

Q. What are the specific adjustments you've made to SDIPC's filed rate base?

A. Plant has been adjusted downward by $582,000 for estimated O&C/A&G and Environmental costs incurred in the construction phase. Accumulated depreciation has been adjusted by $138,577 to reflect one-half of the first year's depreciation; SDIPC reflected no initial year's accumulated depreciation in its filing. I have added $150,000 to the company's rate base as an allowance for materials and supplies, and I have eliminated SDIPC's claimed cash working capital requirement of $90,000.

Plant

Q. Why have you recommended elimination of $582,000 related to estimated O&C/A&G and Environmental costs to be included in rate base?

A. SDIPC in its calculation of rate base included, with some degree of detail, approximately $10,000,000 worth of plant items. The company then added a five percent allowance for O&C and another five percent allowance for A&G, each allowance worth $500,000, and in combination totalling to an additional $1,000,000 in rate base. SDIPC also included $100,000 for Environmental.

The O&C/A&G estimates represent speculation compounded as they are estimates based upon estimates. Further, when comparing the rate base filed as Exhibit 1 in the NG92-002 Docket (SDIPC siting) with SDIPC's July 22, 1992 response to Staff's May 13, 1992 data request, the amount applicable to O&C had apparently been reduced in what appeared to be an attempt to offset other amounts which had increased. By halving the amount requested for rate base inclusion I too am speculating that these amounts will be prudently expended, but am doing so in a more conservative manner than the company.

SDIPC also included a rate base allowance of $100,000 for what they termed "environmental" expenditures. Although SDIPC became aware that an environmental impact statement (EIS) would not have to be prepared, SDIPC cited, in its July 22, 1992 data response, the probability of uncovering archeological finds during the construction period as reason for this contingency fund. While I think it questionable that any amount be placed in rate base based upon this type of speculation, my exhibits reflect a $20,000 allowance for this speculative cost category. Again it should be noted that SDIPC had originally budgeted this amount based upon the EIS contingency, yet retained the amount in full after it became obvious that an EIS would not have to be prepared.

My total plant adjustment of $582,000 may at first glance appear to overstate by $2,000 the value of the items eliminated. The reason for this seeming inconsistency is the changes made by SDIPC in their July 22, 1992 response to a Staff data request. Certain estimates now differ from what was offered in the initial filing.

Accumulated Depreciation

Q. SDIPC did not include any accumulated depreciation offset for the first year's rate base. Why have you done so?

A. SDIPC has asked for depreciation expense recovery for the first as well as subsequent years, so its only proper and fair to ratepayers to offset the average of that depreciation from rate base.

Q. Is there any theoretical reason for not reflecting the average accumulated depreciation balance?

A. No. In order to achieve a proper matching of test year investment, expenses, and revenues, one must determine both the depreciation as well as the accumulated depreciation arising therefrom. As stated above and reflected on my Exhibit_ (GAR-2), only one-half of the depreciation, or an average of year beginning and ending depreciation amounts, is reflected in the accumulated depreciation account. This average corresponds with Commission precedent and proper ratemaking technique. As we move forward to effect a ten-year levelized rate, this matching adjustment assumes additional importance.

Materials and Supplies

Q. SDIPC has not requested any rate base allowance for materials and supplies (M&S), yet you have placed an amount for M&S in your calculation of rate base. Please explain why.

A. SDIPC is the only jurisdictional utility in memory that has not asked for some sort of M&S allowance. It can be presumed with a fair degree of certainty that there will be a need to maintain an inventory of M&S. In the interest of fairness, I have calculated and included an amount for M&S based upon measurement of other natural gas utilities' inventories. My amount is conservative in SDIPC's favor in that my comparative percentages were based upon plant ratios of established companies. Considering that SDIPC is a new entity with investment in all new plant, it could be assumed the ratio may overstate SDIPC's need. My calculation of the allowance appears on Exhibit_(GAR-4).

Cash Working Capital

Q. SDIPC asked for a cash working capital (CWC) allowance of $90,000, yet you

have recommended no allowance be given for CWC. Isn't it common sense that a business needs working capital to operate?

A. I certainly don't deny that any business needs a cash fund in order to operate. The question at hand is not whether cash is necessary, but rather whether ratepayers need to fund this separate amount of cash.

Q. If having a cash fund is a necessary part of doing business, why wouldn't a rate base allowance be required?

A. A cash supply can be generated in a number of ways. One way (which has been requested by SDIPC) would be to stockpile an amount of cash and then have the ratepayers pay a return to SDIPC on this cash balance. However, ratepayers may be double-funding the required cash balance if an up front fund is allowed. A lead-lag study is required for indication of cash need.

Q. What is a lead-lag study?

A. A lead-lag study measures timing of the flow of cash in and out of the business. A lead-lag study is a widely accepted regulatory tool for measuring cash requirements, and has been used, with Commission acceptance, for a number of years in this jurisdiction .

Q. What are the mechanics of a lead-lag study?

A. An example of the measurements common to a lead-lag study is payment of property taxes. Customers pay, as an element of the rate, amounts related to the property taxes accrued by the utility. The utility on the other hand won't actually remit the cash payment to the Department of Revenue until the following year. This phenomenon will recur year after year. A lead-lag study

depicts this transaction and would show the utility has cash available until the cash is delivered to the Department of Revenue. Considering that it is the ratepayers who pay for this expense through rates, any duplicative cash balance funded and included in rate base would force the ratepayers to pay twice. Any time the ratepayers pay the utility for service, and this service payment precedes the time the utility must pay its vendors, suppliers, or governmental agency for whatever it needs or must pay to provide that service, the utility can benefit from a positive cash flow. All of our recent lead-lag studies have shown that a rate base **offset** is necessary due to positive lead-lag cash balances. Using a conservative approach and given the scarcity of data, I have merely zeroed out the company's claimed requirement.

Rate Base - General

Q. Are there any general comments you wish to make regarding rate base?

A. Yes. I would again like to emphasize the highly speculative nature of all amounts included in rate base. In the above discussion I touched upon some theoretical errors in SDIPC's filing, I included an amount for an account which they've not asked for any allowance, it's shown that SDIPC failed to revise their case even when material circumstances changed; in sum the rate base allowance is not capable of being precisely measured. I think it is important to note however, that some estimates are theoretically superior to others. One tool in measuring that superiority is adherence to Commission precedent, and Staff's case is certainly more reflective of precedent than SDIPC's.

One further note. SDIPC has requested a line pack amount of $21,000 in its offered rate base. SDIPC had initially estimated 13,000 Mcf necessary for line pack (Exhibit 1 of the NG92-002 Application), but subsequently revised the

amount to 11,900 Mcf in its July 22, 1992 response to a Staff data request. SDIPC has priced the Mcf at $1.75 per Mcf. I think there is merit in questioning the unit cost considering the function of the gas. SDIPC should more completely justify the pricing of the line pack gas before their depicted amount is included in rate base.

Rate of Return/Capital Structure

Q. Staff exhibits adopt both the rate of return (ROR) and the capital structure proposed by SDIPC. May it be assumed that you take no issue with SDIPC's proposals?

A. I have reflected SDIPC's ROR and capital structure as elements of the revenue requirement. My action should not necessarily be considered as acceptance of their proposals however. I would more accurately describe my usage as being based upon an acknowledgement of the current speculative nature of both issues, judgement that both appear to be in a zone of reasonableness on a first-glance basis, and comfort in knowing that the Commission can subsequently review these issues to assure their reasonableness.

Q. What is SDIPC proposing with regard to return and capital structure?

A. SDIPC is requesting a capital structure of 75% debt and 25% common equity. The debt has a 10% cost rate and the equity has a 14% rate. The weighted ROR is 11%.

Q. Have you nothing to recommend with regard to these issues?

A. I would recommend that whenever and wherever SDIPC obtains their financing,

as these facts become known they should be reported to the Commission.

Operating Income

Q. Have you made adjustment to SDIPC's proposed components of operating income? If so, please enumerate them.

A. Yes, I have. The operating income in this case is a pro forma amount developed in synchronization with rate base, revenue and return requirements, federal income taxes and other operating expenses. My Exhibit_(GAR-1) depicts all of the above elements.

This exhibit again uses SDIPC's submission as a starting point. The stated SDIPC revenues are based on a levelized rate, whereas my revenues reflect a revenue requirement before levelization. Staff's levelized rate which will correspond to SDIPC's revenues can be found on Exhibit_(GAR-10).

On line three is an adjustment amount of $28,000. This downward adjustment to SDIPC's claimed O&M expense is comprised of the elimination of $15,000 of estimated consultants expense, elimination of $8,000 of training expense, and elimination of $5,000 of advertising expense.

The depreciation adjustment of $273,496 on line five is developed on Exhibit_(GAR-3). This adjustment reflects both longer lives as well as certain rate base eliminations.

Line six is the taxes other than income taxes. This has been adjusted by $20,577 for elimination of the contingency listed on SDIPC Statement L and for inclusion of special hearing fund assessments.

The adjustment to federal income taxes, $11,910, simply follows the change in equity return requirements.

On line eight I've eliminated the SDIPC offered AFUDC related income tax allowance of $1,665.

Other O&M

Q. Would you please describe in more detail why you recommend elimination of consultant, training, and advertising expenses?

A. I have not recommended complete elimination of consultant and training expenses. I have recommended that SDIPC be allowed less expense for those items than what they've requested. I have recommended that the advertising and promotional expense be eliminated, however.

Q. Why have you recommended a reduction in claimed consulting and training expenses?

A. Those expenses should be at their peak now, when SDIPC is attempting to get this operation up and running. As the business matures, one can reasonably expect fewer expenditures for consultants and training. Because we are attempting to establish a levelized cost of service which may remain effective over a period of years, it is incorrect to pro form an abnormally high expense into the cost of service. My recommendation is designed to reflect a more normal level of expense.

Q. Is $40,000 an abnormally high level of ongoing consultant expense?

A. For this company, in this business and charging levelized rates, it is. In our line of work we have an opportunity to note consultant expenditures of our office and other utilities. Comparatively, a $40,000 annual built-in recovery of consultant expense is intuitively too high. SDIPC's estimate (which remains unsubstantiated in any way), failed to recognize jurisdictional differences among different states and that SDIPC may be operating under a levelized rate which is designed to keep them away from regulatory activity. It also may well be that SDIPC will develop the necessary expertise with in-house personnel.

Q. Does the same rationale generally hold true for training expense?

A. Yes, it does. While it may be necessary to initially incur relatively high costs of training, one can reasonably expect those costs to diminish over time. The rate should not, inherently and on an ongoing basis, reflect start-up training costs which even initially may be overstated depending on the level of expertise of the employees hired. Again, there is no evidence on record which corrobates SDIPC's request.

Q. Why have you eliminated advertising expense and promotional?

A. As a combination of Commission precedent and uncertainty with regard to the nature of the advertising expense. Commission precedent does not call for allowance of promotional advertising.

Q. Why is promotional advertising not allowed as a recoverable item?

A. Because of the nature of the expense. Promotional advertising is designed to benefit the owners of the utility most generally by increasing sales and resultant profits. Because promotional activities are accomplished at management's discretion for the benefit of the owners, it's a long held regulatory principle that

the owners should bear the cost. There is a wealth of writing on this subject and numerous arguments have been advanced. I do believe however, the essence of the reasoning behind disallowance is contained in the above statement.

Depreciation

Q. Your recommended adjustment to SDIPC's depreciation is the major difference between the two computed costs of service. What circumstances are responsible for the variation?

A. Exhibit_(GAR-3) details, by major plant accounts, my calculation of depreciation expense. Although depreciation expense is reduced due to my recommended disallowance of a portion of O&C/A&G and environmental amounts, the effect is relatively minor compared to the effect caused by the difference in depreciable lives. The bulk of that difference can be traced to one account, mains, which is listed on line two.

Q. You have determined depreciation based on varying lives, whereas SDIPC has depreciated all of its plant over twenty years. The difference between the two recommendations is striking. How do you explain the difference?

A. Our goals appear to be different. There is plethora of theory regarding the development of depreciation rates. Depreciation is the allocation of the cost of an asset over a period of years. Depreciation could be defined as an attempt to properly match, within a given time period or level of output, the benefit gained by usage of the asset with the cost or amount of the asset consumed.

Depreciation rates may also be established based upon an intent to

conservatively (conservative for the owners of the business and potential investors) present a statement of income. One could do this by depreciating the asset over a period of time which is less than the expected useful life.

I believe SDIPC's depreciation rates, in the composite, seriously understate both the physical and the economic life of the plant. The effect of using SDIPC's high depreciation rates will be accelerated cost recovery and a mismatching of service costs and benefits. SDIPC's rates would unfairly burden customers in the first twenty years to the benefit of the customers taking service after twenty years of operation.

The unfairness of the rapid recovery of plant would be further exacerbated when SDIPC attempted to invoke the requested ownership fee. Not only would SDIPC recover their capital over an unrealistically short period, they would then ask the Commission to allow an ownership fee based upon twenty percent of the plant's original value.

Q. SDIPC Witness Szklarski offered testimony citing FERC's approval of a 5% depreciation rate for Iroquois Gas Transmission System in Docket Nos. CP89-629 et al. Do you wish to comment on that case as justification of a 5% rate or twenty year life?

A. Mr. Szklarski's testimony pointed out that in the above-mentioned docket there was a fifteen year export license for shipment of gas. Deliveries hinged upon the potential actions of a foreign government, which could certainly affect the useful economic life of the assets involved. Given the circumstances of that determination, FERC's decision would seem to be of little value for purposes of this docket. This pipeline is neither international or interstate and could be supplied by a variety of sources. In any event, I would be surprised to learn that SDIPC believes its pipeline, when built, would be in operation for only

twenty years.

Q. How did you develop the depreciation rates reflected on Exhibit_(GAR-3)?

A. I reviewed depreciation rates previously filed by other jurisdictional utilities and approved by this Commission. I then specifically chose depreciation rates approved by this Commission in Docket F-3445, Montana-Dakota Utilities Co.

Q. Do you believe these rates to be representative?

A. Yes, I do. While this docket was processed ten years ago and any of the rates could now possibly be altered based upon subsequent findings, I think it reasonable to assume that the rates retain the bulk of their relevance today.

Q. Isn't it possible that interim revisions could have materially increased current depreciation?

A. I suppose there s a possibility, but to be significant in this docket the change would have to be applied to mains. A review of other jurisdictional rulings indicates that's not the case. One may also postulate that intervening changes could just as well serve to lower depreciation, so essentially the F-3445 rates should be usable in this matter. Regardless, SDIPC's offered rate makes virtually no attempt to accomplish anything other than rapid capital recovery. It appears to be based upon concerns other than technical measurement of physical or economic obsolescence which are the standards of this Commission for approval of depreciation rates.

Taxes Other Than Income Taxes

Q. What are taxes other than income taxes?

A. Property taxes, workmens compensation, unemployment insurance, and the special hearing fund; SDIPC has also included a contingency which appears to relate in bulk to property taxes.

Q. What adjustments have you made to SDIPC's claims for these items?

A. I've simply eliminated the $24,000 "contingency" and added $3,423 for the special hearing fund.

Q. Why have you eliminated the contingency?

A. SDIPC cited the uncertainty of the final route as the basis for the contingency. The route is now fairly certain, and again, considering that we are in theory establishing a levelized rate, it appears more likely in the forthcoming years that property taxes will decrease rather than increase. Therefore, even though I've eliminated the contingency, and given the assumption that SDIPC's original estimate is reasonably accurate, it is more likely that I have overstated, not understated, the appropriate level of property taxes to be included in the levelized rate calculation.

Federal Income Taxes

Q. What issues are present in this cost category?

A. Essentially none. The difference between cases is due to differences in rate base.

AFUDC-Equity Income Tax Allowance

Q. Why have you chosen to eliminate this cost item?

A. Given my revisions to depreciation expense, it would be appropriate to measure deferred income taxes and the related accumulated deferred offset to rate base. In lieu of making this determination, for purposes of expediency given the shortness of time and the speculative nature of the data, I eliminated this item and considered the effect offsetting. Obviously this is not a major cost of service item, so I have no objection to further reviewing it in conjunction with a calculation of deferred income taxes related to all applicable tax-timing differences.

Revenue Requirements

Q. What is the result of all the above-discussed adjustments?

A. On Exhibit_(GAR-6), line 9, under traditional cost of service principles, a revenue requirement of $2,285,524 is developed. Given SDIPC's first year estimate of sales, this would compute to a rate of $3.5162 per Mcf. Under Staff's informal estimate of first year sales volumes, the rate would be $7.3216 per Mcf. These rates do not reflect any levelization.

Q. Have you computed a levelized rate?

A. Yes, I have for both SDIPC and Staff volumes on both a five and ten year levelized basis. The rate is shown on Exhibit_(GAR-10). The five year levelized rate appears in column (l), and the ten year levelized rate appears in column (m).

Q. You have explained the development of your initial year determination of the cost of service, but obviously a five or ten year levelization requires determination of additional years' costs of service. What have you done to accomplish the future years' cost of service calculation?

A. The subsequent years' costs of service estimates are found on Exhibit_ (GAR-7), Exhibit_(GAR-8), and Exhibit_(GAR-9). Exhibit_(GAR-7) essentially has as a starting point a combination of Exhibits_(GAR-2) and _(GAR-5), which are rate base and return/federal income taxes, respectively. The only change which I would term as basic is the continued accrual of accumulated depreciation. The resultant rate base, return, and federal income taxes simply follow the change in accumulated depreciation.

Exhibit_(GAR-9) extends Exhibit_(GAR-6) by incorporating the necessary changes made to rate base, return (for both interest and equity), and federal income taxes, along with O&M inflated by 4% per year. This exhibit then develops the special hearing fund and revenue requirements.

Exhibit_(GAR-8) develops the annual income statements which incorporate amounts derived on the previous two statements.

Exhibit_(GAR-10) develops both the annual as well as levelized rates based upon the revenue requirements and the volumes. Both the yearly Mcf rates as well as the annualized rates, on a five and ten year basis are developed on lines three and six for SDIPC and Staff volumes, respectively.

Q. What are the per Mcf results of your analysis?

A. All of the per Mcf rates are based upon my cost of service calculation. Differing volumes and levelization periods are the reason for the variety of rates.

Usage of SDIPC's volumes leads to rates of $2.5557 per Mcf on a ten year levelized basis (directly comparable to SDIPC's filed rate of $2.90 per Mcf), and $3.0474 per Mcf on a five year annualized basis.

Usage of Staff's volumes leads to rates of $4.4085 per Mcf on a ten year levelized basis, and $5.5176 per Mcf on a five year basis.

Conclusion

Q. What is Staff's recommended rate?

A. I recommend that the Commission adopt the rate of $2.5557 per Mcf.

Q. Doesn't this rate clearly contradict the Staff computation of sales volumes?

A. Yes, it does. Staff's estimated volumes are well below those estimated by other parties. Further, given various assumptions that went into Staff's determination of volumes, and Staff's decision to error on the high side of certain inputs to sales, it may well be that Staff's volumes are unreasonably high.

Q. Why then do you recommend that the Commission adopt SDIPC's sales/throughput estimate?

A. I touched on the point earlier in my testimony. SDIPC and certain others appear to be convinced that the load necessary for profitable operation exists and will continue to grow. We readily admit that we are not experienced in forecasting natural gas load in newly served communities. Therefore, if the marketers are willing to act upon their convictions and bear the risk of loss, it

appears prudent for Staff to adopt the sales projections offered for determination of the rate.

Q. Are there any further recommendations you wish to make?

A. Yes. Given that Staff's cost of service develops a rate which is approximately $.35 per Mcf below SDIPC's requested levelized rate based upon SDIPC's calculated volumes, it wouldn't be surprising if SDIPC attempted to revise their load estimate in order to move the rate upward. Given that SDIPC had more than ample time to review load estimates prior to the time Staff filed testimony, the Commission should view with skepticism any subsequent attempt by SDIPC to move the rate upward on the basis of lowered sales estimates.

There also remains a potential host of rate terms and conditions problems. SDIPC should be put on notice that the Commission will have to conduct a detailed review of tariffs as they are filed.

One additional area of potential problem is the possibility that certain large customers with fuel usage options may attempt to use their ability to fuel switch or bypass as levers to extract rate concessions. There is no mechanism yet established or designed to deal with this possibility. Additionally, if this were to happen it would further erode margins, and potential margin erosion has not been reflected in any sales/revenue estimate.

SDIPC has also requested an ownership fee be allowed once the plant investment is depreciated to 20% of its original value. Again, I believe it's premature to consider such a fee given the fact that future Commissions cannot be bound by a decision in this docket. The ownership fee issue should be deferred until the timing is relevant.

The Commission is free to review rates and revenue requirements at any time, however I believe that everyone should be put on notice that all of the estimated data appearing in this docket may be subject to actual measurement with subsequent rate revision in the near future if the Commission deems it necessary.

Q. I have no further questions.

BEFORE THE

PUBLIC UTILITIES COMMISSION

STATE OF SOUTH DAKOTA

SOUTH DAKOTA INTRASTATE PIPELINE COMPANY

DOCKET NG92-005

EXHIBITS OF

GREGORY A. RISLOV

ON BEHALF OF THE COMMISSION STAFF

DECEMBER, 1992

South Dakota Intrastate Pipeline Company

Exhibit ____ (GAR-1)

Operating Income
December 1992

		SDIPC	Adjustments	Staff
	(a)	(b)	(c)	(d)
1	Operating Revenues	$1,885,252	$400,272	$2,285,524
	Operation and Maintenance			
2	Payroll and Benefits	$312,000	$0	$312,000
3	Other	188,000	(28,000)	160,000
4	TOTAL Operation and Maintenance	$500,000	($28,000)	$472,000
5	Depreciation	550,650	(273,496)	277,154
6	Taxes other than income	220,000	(20,577)	199,423
	Federal income taxes			
7	Currently payable	200,190	(11,910)	188,280
8	AFUDC - Equity income tax allowance	1,665	(1,665)	0
9	**TOTAL Operating Expenses**	$1,472,505	($335,648)	$1,136,857
10	**Net operating income**	$412,747	$735,920	$1,148,667

Source:

Col (b) Line(s) 1: SDIPC Statement I.
2&3: SDIPC Statement H.
5: SDIPC Statement M.
6: SDIPC Statement L.

Col (c) & (d) Line(s) 1: Staff Exhibit ____(GAR-5), Line 9
3: SDIPC Statement H less $ 5,000 for advertising and promotional, $25,000 for consultants and $8,000 for training
5: Staff Exhibit ____(GAR-3)
6: Staff Exhibit ___ (GAR-6) (Special Hrg. Fund) less contingency on Statement L.
7: Staff Exhibit ____ (GAR- 5)

Exhibit ____ (GAR-2)

South Dakota Intrastate Pipeline Company
Rate Base
December 1992

		SDIPC	Adjustments	Staff
	(a)	(b)	(c)	(d)
1	Plant	$10,992,000	($582,000)	$10,410,000
2	Less: Accumulated Depreciation	0	(138,577)	(138,577)
3	Net Plant	$10,992,000	($720,577)	$10,271,423
4	Materials and Supplies	$0	$150,000	$150,000
5	Gas inventory (line pack)	21,000	0	21,000
6	Cash working capital	90,000	(90,000)	0
7	**TOTAL rate base**	$11,103,000	($660,577)	$10,442,423

Source: Col. (c) Line(s) 1 & 2: Staff Exhibit ___ (GAR-3).
4: Staff Exhibit ____ (GAR-3).
5: July 22, 1992 SDIPC Response to Staff Data Request

Exhibit ___ (GAR-3)

South Dakota Intrastate Pipeline Company
Depreciation
December, 1992

		Estimated Cost	Estimated Life (Years)	Straight-Line Rate	Allowable Depreciation (Col.b X Col. d)
	(a)	(b)	(c)	(d)	
1	Rights of Way & Permits	$110,000	50	.02	$2,200
2	Mains	8,351,000	40	.025	208,775
3	SCADA Systems	200,000	10	.10	20,000
4	Cathodic Protection	90,000	40	.025	2,250
5	Pig Traps	125,000	40	.025	3,125
6	SUBTOTAL	$8,876,000		.0266	$236,350
7	Supervision, Engineering & Drafting	1,014,000	Composite	.0266	26,972
8	O&C/A&G	500,000	Composite	.0266	13,300
9	Environmental	20,000	Composite	.0266	532
10	TOTAL (L. 6+7+8+9)	$10,410,000			$277,154
11	Average Accumulated Depreciation (divided by 2)				$138,577

Source:

Col. (b) Lines 1-7: July 22, 1992, Response of SDIPC to Staff Data Request 1.

8: 1/2 of SDIPC estimate

9: Testimony of Staff Witness Rislov

Col. (c) Lines 1-5: Useful life estimates based upon MDU Docket F-3445.

7-9: Composite based upon items 1-5.

South Dakota Intrastate Pipeline Company
Development of Materials and Supplies
December, 1992

		Staff - Pro Forma		
		Total Plant	**M & S**	**Ratio (b/a)**
		(a)	**(b)**	**(c)**
	Recent Natural Gas Dockets:			
1	Minnegasco - F-3826	$30,116,106	$244,071	.008
2	MDU - F-3445	34,716,442	731,362	.021
3	**TOTAL**	$64,832,548	$975,433	.015
4	Total Plant - SDIPC	$10,390,000		
5	Ratio	.015		
6	Materials & Supplies Allowance	$155,850		
7	Use	$150,000		

Sources:

Line (1): Exhibit ___ (RGT-1) p. 3 of 3.

(2): Exhibit ___ (GAR-1) Sch. 1.

(4): NG92-005, Exhibit ___ (GAR-3), Depreciation.

Exhibit _____ (GAR-5)

South Dakota Intrastate Pipeline Company

Rate Base - Return - Federal Income Taxes

December 1992

		w/o ADFIT
	(a)	(b)
1	Rate Base	$10,442,423
2	Rate of Return	0.11
3	Return	$1,148,667
4	Equity Component	0.035
5	Equity Return (Line 1 x Line 4)	$365,485
6	Federal Income Taxes (.51515)	188,279
7	Rate Base financed with Debt (.75 x Line 1)	$7,831,817
8	Cost of Debt	0.10
9	Interest	$783,182

Source:
Line(s) 1: Exhibit _____ (GAR-7)
2,4,7&8: SDIPC Statement G

Exhibit ___ (GAR-6)

South Dakota Intrastate Pipeline Company
Calculation of Required Revenues
December, 1992

		Staff Starting
1	Operation and Maintenance Expenses	$472,000
2	Depreciation	277,154
3	Taxes Other Than Income	196,000
4	FIT	188,280
5	Return	1,148,667
6	Revenue Required Before SHF	$2,282,101
7	Special Hearing Fund %	.0015
8	Special Hearing Fund	$3,423
9	Total Revenue Required	2,285,524
10	Less: Expenses Before Interest and FIT	948,577
11	Income Before Interest	$1,336,947
12	Interest	783,182
13	Income Before FIT	$553,765
14	FIT (X .34)	188,280
15	Net Income	$365,485

Source:

Line (1): Staff Exhibit ___ (GAR-1).
(2): Staff Exhibit ___ (GAR-1).
(3): Staff Exhibit ___ (GAR-1) Without SHF.
(4): Staff Exhibit ___ (GAR-5).
(5): Staff Exhibit ___ (GAR-5).
(7): Statutory Rate.
(10): Line 9 Less FIT and Return.
(12): Staff Exhibit ___ (GAR-5).
(14): Staff Exhibit ___ (GAR-5).

Exhibit ___ (GAR-7)

South Dakota Intrastate Pipeline Company

Rate Base and Capitalization Components

December 1992

	ITEM	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Five Year Average	Ten Year Average
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)		
1	Plant	$10,410,000	$10,410,000	$10,410,000	$10,410,000	$10,410,000	$10,410,000	$10,410,000	$10,410,000	$10,410,000	$10,410,000		
2	Less: Accumulated Depreciation	($138,577)	($415,731)	($692,885)	($970,039)	($1,247,193)	($1,524,347)	($1,801,501)	($2,078,655)	($2,355,809)	($2,632,963)		
3	Net Plant	$10,271,423	$9,994,269	$9,717,115	$9,439,961	$9,162,807	$8,885,653	$8,608,499	$8,331,345	$8,054,191	$7,777,037		
4	Materials and supplies	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000		
5	Gas Inventory (line pack)	$21,000	$21,000	$21,000	$21,000	$21,000	$21,000	$21,000	$21,000	$21,000	$21,000		
6	Cash Working capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0		
7	TOTAL rate base	$10,442,423	$10,165,269	$9,888,115	$9,610,961	$9,333,807	$9,056,653	$8,779,499	$8,502,345	$8,225,191	$7,948,037	$9,888,115	$9,195,230
8	Return (line 7 x 11%)	$1,148,667	$1,118,180	$1,087,693	$1,057,206	$1,026,719	$996,232	$965,745	$935,258	$904,771	$874,284	$1,087,693	$1,011,475
	Equity Component of return												
9	(Line 7 x 3.5%)	$365,485	$355,784	$346,084	$336,384	$326,683	$316,983	$307,282	$297,582	$287,882	$278,181	$346,084	$321,833
	Federal income taxes												
10	(Line 9 x .51515)	$188,279	$183,282	$178,285	$173,288	$168,291	$163,294	$158,297	$153,299	$148,302	$143,305	$178,285	$165,792
	Rate base financed with												
11	debt (line 7 x 75%)	$7,831,817	$7,623,952	$7,416,086	$7,208,221	$7,000,355	$6,792,490	$6,584,624	$6,376,759	$6,168,893	$5,961,028		
12	Cost of Debt	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10		
13	Interest	$783,182	$762,395	$741,609	$720,822	$700,036	$679,249	$658,462	$637,676	$616,889	$596,103	$741,609	$689,642

1 Source:

Column (b) Line(s) 1-7: Staff Exhibit ___ (GAR-2).

8-13: Staff Exhibit ___ (GAR-5)

(c) 2: Staff Exhibit ___ (GAR-3). 1/2 of current year's expenses plus previous year's ending balance.

Exhibit ___ (GAR-8)

South Dakota Intrastate Pipeline Company
Operating Income
December 1992

ITEM	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Five Year Average	Ten Year Average
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1 Operating revenues required	$2,285,524	$2,269,495	$2,254,247	$2,239,812	$2,226,219	$2,213,505	$2,201,704	$2,190,851	$2,180,988	$2,172,149	$2,255,059	$2,223,449
2 Operation and maintenance	$472,000	$490,880	$510,515	$530,936	$552,173	$574,260	$597,231	$621,120	$645,965	$671,803	$511,301	$566,688
3 Depreciation	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154
4 Taxes other than income	199,423	199,999	200,600	201,228	201,882	202,565	203,278	204,020	204,796	205,603	200,626	202,339
5 Federal income taxes	188,280	183,282	178,285	173,288	168,291	163,294	158,296	153,299	148,302	143,305	178,285	165,792
6 Total operating expenses	$1,136,857	$1,151,315	$1,166,554	$1,182,606	$1,199,500	$1,217,273	$1,235,959	$1,255,593	$1,276,217	$1,297,865	$1,167,366	1,211,974
7 Net operating income	$1,148,667	$1,118,180	$1,087,693	$1,057,206	$1,026,719	$996,232	$965,745	$935,258	$904,771	$874,284	$1,087,693	1,011,476

Source:
Line(s) 1,2,3,5 & 7: Exhibit ___(GAR-9)
4: Exhibit ___(GAR-9), Line 3 + Line 7

Exhibit ____ (GAR-9)

South Dakota Intrastate Pipeline Company
Development of Revenue Requirements
December 1992

	ITEM	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	FIVE YEAR AVERAGE	TEN YEAR AVERAGE
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	Operation and Maintenance Expenses	$472,000	$490,880	$510,515	$530,936	$552,173	$574,260	$597,231	$621,120	$645,965	$671,803	$511,301	$566,688
2	Depreciation	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154	277,154
3	Taxes other than income	196,000	196,600	197,224	197,873	198,548	199,250	199,980	200,739	201,529	202,350	197,249	199,009
4	Federal income taxes	188,280	183,282	178,285	173,288	168,291	163,294	158,296	153,299	148,302	143,305	178,285	165,792
5	Return	1,148,667	1,118,180	1,087,693	1,057,206	1,026,719	996,232	965,745	935,258	904,771	874,284	1,087,693	1,011,476
6	Revenue required before Special Hearing Fund	$2,282,101	$2,266,096	$2,250,871	$2,236,457	$2,222,885	$2,210,190	$2,198,406	$2,187,570	$2,177,721	$2,168,896	$2,251,682	$2,220,119
7	Special Hearing Fund at .15% of line 6	3,423	3,399	3,376	3,355	3,334	3,315	3,298	3,281	3,267	3,253	3,378	3,330
8	Total revenue required	$2,285,524	$2,269,495	$2,254,247	$2,239,812	$2,226,219	$2,213,505	$2,201,704	$2,190,851	$2,180,988	$2,172,149	$2,255,060	$2,223,449
9	Less: Expenses before interest and FIT	948,577	968,033	988,269	1,009,318	1,031,209	1,053,979	1,077,663	1,102,294	1,127,915	1,154,560	989,081	1,046,182
10	Income before interest	$1,336,947	$1,301,462	$1,265,978	$1,230,494	$1,195,010	$1,159,526	$1,124,041	$1,088,557	$1,053,073	$1,017,589	$1,265,978	$1,177,268
11	Interest	783,182	762,395	741,609	720,822	700,036	679,249	658,462	637,676	616,889	596,103	741,609	689,642
12	Income before FIT	$553,765	$539,067	$524,369	$509,672	$494,974	$480,277	$465,579	$450,881	$436,184	$421,486	$524,369	$487,625
13	Federal income taxes at 34%	188,280	183,283	178,285	173,288	168,291	163,294	158,297	153,300	148,303	143,305	178,286	165,793
14	**Net Income**	$365,485	$355,784	$346,084	$336,384	$326,683	$316,983	$307,282	$297,581	$287,881	$278,181	$346,084	$321,833

Source:

Column(s) (b), Line(s) 1-14: Staff Exhibit ____ (GAR-6)

(c-k) 1: Inflate by 4%/year.

(c-k) 3: Staff Exhibit ____ (GAR-1), line 6, column (d), after eliminating the Special Hearing Fund and inflating workers compensation balance by 4%/year.

4 ,5,11,13&14: Staff Exhibit ____ (GAR-7)

9: Line 8 less FIT and Return

Exhibit ____ (GAR-10)

South Dakota Intrastate Pipeline Company

Levelized Service Rates

December 1992

ITEM	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	FIVE YEAR AVERAGE	TEN YEAR AVERAGE
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1 Revenue requirement per Staff	$2,285,524	$2,269,495	$2,254,247	$2,239,812	$2,226,219	$2,213,505	$2,201,704	$2,190,851	$2,180,988	$2,172,149	$2,255,059	$2,223,449
2 Estimated volumes per SDIPC	650,000	650,000	700,000	800,000	900,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	740,000	870,000
3 Per MCF cost	$3.5162	$3.4915	$3.2204	$2.7998	$2.4736	$2.2135	$2.2017	$2.1909	$2.1810	$2.1721	$3.0474	$2.5557
4 Revenue requirement per Staff	$2,285,524	$2,269,495	$2,254,247	$2,239,812	$2,226,219	$2,213,505	$2,201,704	$2,190,851	$2,180,988	$2,172,149	$2,255,059	$2,223,449
5 Estimated volumes per Staff	312,160	360,027	426,297	450,998	494,047	600,000	600,000	600,000	600,000	600,000	408,706	504,353
6 Per MCF Cost	$7.3216	$6.3037	$5.2880	$4.9663	$4.5061	$3.6892	$3.6695	$3.6514	$3.6350	$3.6202	$5.5176	$4.4085

Source:

Line(s) 1&4: Exhibit ____ (GAR-8)

2: SDIPC Statement I

3: Staff Witness Wegman Exhibits and Testimony