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**RUSSIAN FEDERATION
WATER AND WASTEWATER PROJECT**

***Russian Water Loan Feasibility Assessment:
Pechora Structural Sub-Unit
“Vodokanal,” Republic of Comi***

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FOREWORD

This report on the Pechora Municipal Enterprise "Vodokanal" represents a single volume of a 9 volume series. The series contains 8 individual vodokanal reports (including this one) and an "Overview" Report. The series was produced in support of the Russian Water and Wastewater Project with financing from the United States Agency for International Development (USAID) under the Shelter Sector Reform Program for the Newly Independent States. The effort was carried out during the first half of 1997.

Like the other individual vodokanal reports, this report presents the results of institutional and financial assessments related to the Pechora Vodokanal's ability to contract debt. The report's institutional and financial recommendations are presented to assist vodokanal decision makers improve the Pechora Vodokanal's operational and financial autonomy in order to enhance its debt repayment capabilities.

This report was written by Samuel Coxson, Chief of Party - Finance and Institutional Specialist, Alexander Krishtop, Institutional Specialist, Kirill Sivolapov, Financial Specialist, Michael Sinclair, Privatization Legal Specialist and Ernest Slingsby, Technical Manager. Accounting and financial data management and analysis assistance was provided by Sunil Perera. Additional legal research, analysis and commentary was provided by Anton Litvinov. Additional commentary was provided by Alexander Gamota, Economist/Institutional Specialist, Michael Schaeffer, Financial Specialist and Eugene Gurenko, Tariff Specialist. All these individuals are with PADCO, Inc.

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EXECUTIVE SUMMARY AND ACTION PLAN

1. EXECUTIVE SUMMARY

Financial Conditions

Reduced Financial Assistance

The Pechora Vodokanal has encountered, as have many Russian Cities and Communal Services, a very significant reduction in financial assistance from the traditional sources of funding, the City, the Republic and Federal governments. This has not only affected the capital improvements of the Vodokanal but its operational financial condition as well. Delayed payments for services have also adversely affected the Vodokanal's financial capacity and its cash or liquidity soundness and flexibility. The Vodokanal's largest single series of accounts receivable is with government budget organizations that belong to the City, Republic and Federal governments.

Increase in Non-Cash Transactions

Increases in barter and offsets have grown dramatically. During 1995, barter and offsets were 71 percent of total collections while in 1996, these forms of payment were 97 percent leaving actual cash collections of only 3 percent. This extremely low level of cash collections and liquidity would, if continued, would preclude the Vodokanal from servicing any long term debts without outside assistance. Without very significant assistance and guarantees from the City and Republic governments, it is unlikely that a lender would enter a loan arrangement. Later in the report, we estimate that cash collections must approximate 50 percent of total receipts if the Vodokanal is to service debt and meet its minimal cash obligations.

Institutional Environment

The Pechora Vodokanal is a subsidiary of Pechora Zhilishchno-Kommunalnoe khozhaistvo ("Pechorzhilkomkhoz"), a holding company established by the City to manage several communal services. As a subsidiary, the Pechora Vodokanal is severely constrained in self-management and financial transactions. It is not a legal entity and cannot enter into legally-binding agreements with customers or other entities. These must go through the parent enterprise, Pechorzhilkomkhoz. Profits made by the Vodokanal are siphoned off to losses of the other communal services at the expense of the Vodokanal's ability to make essential payments for its own operations such as repairs and rehabilitation, mandatory personnel payments, etc.

Consumption-based Pricing

Pricing based on consumption or treating water and treated wastewater as economic goods is a goal that the Pechora Vodokanal management has stated they would like to achieve. The Vodokanal does not meter residential or budget organization customers. Only the production enterprises are metered. The City and Vodokanal should work together to install water meters at the whole building level for apartment houses, individual houses, and each budget enterprise. Production enterprises are already being metered. The tariff should be billed on actual

consumption as opposed to billing by norm. This will act as an incentive to reduce consumption by the consumer, but will concurrently reduce some of the expenses for the Vodokanal. However, there would not be a direct reduction ratio between reduced consumption and operation expenses since some of the overhead costs would continue regardless of consumption levels.

Reduce Water Losses/Increase Efficiency of System

The Vodokanal does not have a good picture of where its losses occur. Our research in other cities suggests that losses comprise roughly 50 percent in the apartment houses and 50 percent in the system's lines. Production meters and metering at the building level will more explicitly identify the ratio of loss. Programs to reduce the losses in both apartments and transmission and distribution lines can be started. Since electricity accounts for more than 50 percent of the Vodokanal budget, any significant reduction in this expense would add to the financial flexibility of the Vodokanal.

Establish Vodokanal as a Separate Legal Entity

The Pechora Vodokanal needs to be established as a separate legal entity. As a subsidiary of Pechorazhilkomkhoz it does not have the authority to sign contracts, and generally be in full management control of the financial operations of Vodokanal. Additionally, although profitable in an overall sense, the Vodokanal has incurred additional expenses as a result of its being a subsidiary (the fines and penalties for late payment of mandatory taxes are an example of this financial subordination of the Vodokanal to Pechorazhilkomkhoz).

There are three general types of organizational structure that the Vodokanal may choose as its structure: municipal unitary enterprise, closed joint stock company and open joint stock company. The closed joint stock company does not offer much autonomy if the municipality owns the stock (it would be essentially the same as the unitary municipal enterprise). If the employees owned the stock in a closed joint stock company it would give the employees a near monopoly on the provision of the service and the conditions under which those services would be provided (along with being the owner of the stock, the employees would negotiate the worker's collective agreement with the people that they control). Additionally, the closed joint stock company would not bring any capital into the picture as an open joint stock company could.

Our preference is to create an open joint stock company or a municipal unitary enterprise but do so in conjunction with negotiating a service agreement. Under the open joint stock company it is possible that the only stockholder would be the City, or the City as majority stock holder and other groups as part owners (e.g. workers collective, Pechorazhilkomkhoz, etc.). This structure would enable investments in the future by stockholders, etc. The municipal unitary enterprise would continue the closer municipal control over operations and financial transactions by appointing the Director and continuation of the capital improvements contributions to the Vodokanal. While the municipal unitary enterprise presents us with less Vodokanal autonomy, it is more appealing to local governmental officials who may see the open joint stock company as a loss of control or letting a natural monopoly have "too much" control. However, we would not recommend the municipal unitary enterprise without the accompanying service agreement. We see the service agreement as the key to provide Vodokanal autonomy as well as municipal control

through a negotiated service agreement that speaks to specific performance levels as well as payment obligations of the local government.

**PECHORA ACTION PLAN FOR
FINANCIAL AND INSTITUTIONAL REFORM**

| ACTION ITEM | RESPONSIBLE PARTY | APPROX. DATE DONE |
|--|---|--------------------------|
| 1. Establish Pechora Vodokanal as an independent enterprise | City of Pechora, Pechorazhilkomkhoz and Pechora Vodokanal | December 31, 1997 |
| 2. Select an organizational structure | City and Pechora Vodokanal | December 31, 1997 |
| 3. Reach a performance-based service agreement with the City | City and Pechora Vodokanal | December 31, 1997 |
| 3. Establish strategic planning and budgeting | Pechora Vodokanal | December 31, 1997 |
| 4. Consider outsourcing functions such as: -- Systems line maintenance -- Laboratory Services -- Fleet services and maintenance | Pechora Vodokanal | December 31, 1997 |
| 5. Establish a demand management program | Pechora Vodokanal | December 31, 1997 |
| 6. Request wastewater pre-treatment legislation for industrial wastes | Russian Federation, Republic of Komi, and City of Pechora | December 31, 1998 |
| 7. Establish a metering program for system production and consumption at the whole building level | City of Pechora, Pechorazhilkomkhoz and Pechora Vodokanal | December 31, 1998 |
| 8. Purchase of new lab equipment | Pechora Vodokanal | December 31, 1997 |
| 9. Computerize all aspects of financial transactions and use cost accounting software | Pechora Vodokanal | December 31, 1997 |
| 10. Increase cash transactions whenever possible with set goals of reaching a given percentage on a time schedule | Pechora Vodokanal and City, Pechorzhilkomkhoz | December 31, 1997 |
| 11. Establish a formal budgetary process and have the budget approved by the Vodokanal Director | Pechora Vodokanal | December 31, 1997 |
| 12. Carry out trial balances monthly | Pechora Vodokanal | December 31, 1997 |

2. INSTITUTIONAL/REGULATORY ASSESSMENT

2.1. Present Institutional/Regulatory Environment

2.1.1. Vodokanal-Municipal Relations

The Pechora Vodokanal is a subsidiary of the Pechora Zhilishchno-Kommunalnoe khozhaistvo "Pechorazhilkomkhoz" and as such, it is not a legal entity. Its parent enterprise, Pechorazhilkomkhoz, was established as a unitary municipal enterprise by Resolution Number 301 of the Pechora City Administration on April 2, 1996. This Resolution adopted the Charter that lists the duties and responsibilities of the parent enterprise and the City Administration. Shortly after the Pechorazhilkomkhoz's Charter was approved, the Property Committee of the City reached an agreement with Pechorazhilkomkhoz giving it the right of economic management over all the assets of the water and wastewater systems. This agreement with Pechorazhilkomkhoz came into force on May 7, 1996. The agreement spells out general the authority and responsibility but does not mention payment for the use (lease) of the assets assigned to the Vodokanal. The City Property Committee clearly reserves the right to dispose of assets to itself rather than the Vodokanal.

Pechorazhilkomkhoz then entered an agreement with the Director of the Vodokanal. This agreement goes into more detail concerning specific water and wastewater functions and the responsibilities of the Vodokanal Director.

In the past, the City of Pechora contributed capital grants to the Vodokanal. However, falling federal and republic financial assistance means that the City can contribute only very small amounts of funding for capital improvements. With the founding of Pechorazhilkomkhoz and the transfer of the right of economic management to the parent enterprise, Pechorazhilkomkhoz and its subsidiary (Pechora Vodokanal) have been given the responsibility for financing capital improvements.

Pechorazhilkomkhoz plans to reorganize the Pechora Vodokanal as an open joint stock company. Legal research is underway with the goal of reorganizing the Pechora Vodokanal by the end 1997. Such a reorganization will require a new charter, a new agreement with the City Property Committee and new agreement with the Vodokanal Director. Additionally, the Workers' Collective will have to agree to the reorganization.

2.1.2. Obstacles to Operational and Financial Autonomy

The primary obstacle to relative independence of operations and self-sustaining financial activities is the Vodokanal's subordination to Pechorazhilkomkhoz. As a subsidiary, the Vodokanal can not bring its full financial resources to bear on its specific problems. The parent enterprise takes the Vodokanal's profits to finance losses of its other communal services at the expense of the Vodokanal. As a result, the Vodokanal lacks adequate cash to meet its obligations. For example, the Vodokanal incurs fines because it pays its taxes late, although its cash flow is sufficient to cover the taxes.

While spreading the Vodokanal profits to other enterprises under the Pechorazhilkomkhoz umbrella might make excellent financial sense for the parent enterprise, it subordinates the needs of the Vodokanal to that of the larger parent enterprise. If long term debt is to be undertaken, separating the Vodokanal from its parent enterprise will be essential to make the Vodokanal an autonomous, self-governing, self-financing enterprise.

2.2. Assessment of Vodokanal Management and Operations

2.2.1. Organization and Management

Except for being a subsidiary of a larger communal services enterprise, the Pechora Vodokanal is organized very similarly to that of other Russian vodokanals. It has a Director, Chief Engineer, who functions as the chief operations officer, a Chief Accountant, Customer Service Department and several other departments (see the Organization Chart in Appendix I). The Vodokanal receives its authority and responsibility from two source documents, the Charter founding the parent enterprise and the agreement between the parent enterprise and the Director of the Vodokanal. However, in the second agreement, the term for the "Director" as the chief executive officer of the Vodokanal is not used, rather "Executor" is used suggesting further subordination.

The agreement between Pechorazhilkomkhoz and the Vodokanal Executor goes into more detail than does the Charter. Through it, the Director is given operating control and responsibility for all aspects of the water and wastewater services. Both the Charter of the parent enterprise and the agreement with the "Executor" refer to the planning, controlling and management functions of the Vodokanal. The Property Committee of the City of Pechora, in this Charter and by separate agreement, has given the Director of the Vodokanal nearly complete control over the property, equipment and plant of the water and wastewater systems. However, the City reserves the right to approve the sale or transfer of any fixed assets. General day-to-day control of operations and asset utilization of the water and wastewater systems vests with the Vodokanal Director.

2.2.2. Human Resources Management

The Pechora Vodokanal employs 369 people. With a service population of 56,700, this amounts to one employee for every 154 persons served by the system. Of the total number of employees, 17 employees are management, 134 work in the Water Division and 210 work in the Wastewater Division. Eight people are classified as support for both divisions in various specialties. Table 1 below presents a graphic picture of the employment over the last seven years.

Table 1. Employment Levels at Vodokanal

| Year | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---------------------|------|------|------|------|------|------|------|
| Number of Employees | 196 | 214 | 256 | 257 | 288 | 336 | 369 |
| Percent Increase | 0% | 9% | 20% | 0% | 12% | 17% | 10% |

Personnel increases from 1991 to 1997 have been very substantial, nearly doubling in the seven years (88 percent). The General Director of Pechorazhilkomkhoz explained that the growth, especially from 1994, has paralleled the increased shifting of housing and communal services from production enterprises to the City and then on to Pechorazhilkomkhoz. Increased numbers of customers, increased production, transmission and distribution lines and also maintenance of wastewater lines, and maintenance in general have caused the needed increase in Vodokanal personnel.

Position vacancies and promotions are handled on a competitive basis according to recruitment and promotion regulations and the worker's collective labor agreement. Generally, a Recruitment Board consisting of Vodokanal Management, representatives from the Workers' Collective and the City reviews the applications and recommends a candidate to the Vodokanal Director. Then the board certifies that the candidate has the required education, training and skills to fulfill the responsibilities of the position.

2.2.3. Finance Department

The Finance Department is made up a billing section, a payroll section, accounts payable section, warehouse section and a bookkeeping section. This Department is described in detail in the financial analysis portion of this report.

Computerization is limited. Most financial data and records are maintained manually. Where computerization has been undertaken, it is piecemeal. Computerized functions do not form an integrated single financial management system, nor are they tied into other accounting and records keeping functions. For example, the General Ledger is computerized but subsidiary journals are recorded by hand.

Management oversight of the day to day financial transactions and monitoring expenses against revenues at the Vodokanal is only partially carried out. Because of the subsidiary nature of the Vodokanal, financial transactions are monitored, if at all, at the parent company level. In discussions with parent company staff, close oversight of Vodokanal financial transactions at the parent company level was evidently limited to transactions involving the parent company (e.g. agreements for offset, barter, etc.).

Budgeting at the Vodokanal is done by the Economist who receives estimates from department heads and generates budget estimates from their projections. However, here the budget process stops. The Vodokanal Director does not approve a formal budget for the Vodokanal nor is it forwarded onto the parent company for review and comment or approval.

2.2.4. Operations and Maintenance

Preventive maintenance is carried out at the Pechora Vodokanal regularly. Maintenance of all types is closely coordinated with support shops and personnel.

The service area of Pechora Vodokanal includes the City of Pechora and three small villages (Kopeva, Haberezhni, Putesy). The combined service area serves approximately 56,740 people. There are three main well fields that serve Pechora. The systems are not only out of town they are

also spread long distances from each other. Therefore, the water supply system has approximately 125 kilometers of transmission and distribution lines. More than half the transmission and distribution system (68 kilometers) has been depreciated 80 percent or more.

Water production is metered. According to the Vodokanal, the total water production for 1996 was 7,926,959 cubic meters or approximately 21,718 cubic meters per day. The Vodokanal's water extraction license permits it to extract 34,600 cubic meters per day. However, this apparent surplus from the upper extraction limit distorts production figures because of the poor water quality of one well field. Often, the iron level in water from the poorest quality well field exceeds the allowable quality limits by 21 times and has exceeded the level by 72 times (0.3 milligrams of iron per liter is the allowable limit for iron in the water). The poorest well field has generated water that has tested at 21.5 milligrams of iron per liter.

Wastewater is treated at an aging plant. Wastewater treatment for 1996 was 7,934,269 cubic meters for the year or approximately 21,737 cubic meters of wastewater per day. The Vodokanal has begun to replace some intake chambers and plans to build two new clarifiers. Currently, the Vodokanal is treating approximately 21,738 cubic meters per day. The repair and replacements planned for the wastewater treatment plant will not add to its capacity. Dried sludge is stored on site near the wastewater treatment plant and can be land applied for agricultural purposes. City residents are allowed to come to the site and take the dried sludge to their gardens, etc.

Table 2. Customer Categories and Volume Billed

| Customer Category | Number of Customers | Amount of Water Volume Billed (In m3) | Amount of Wastewater Volume Billed (In m3) | Estimated Total (In m3) |
|------------------------|---------------------|---------------------------------------|--|-------------------------|
| Population | 56,740 | 3,195,563 | 3,064,238 | 6,259,801 |
| Budget Organizations | 40 | 3,447,453 | 3,447,030 | 6,894,483 |
| Production Enterprises | 163 | 1,283,585 | 1,422,643 | 2,706,228 |
| Other | n/a | 358 | 358 | 716 |
| Total | | 7,926,959 | 7,934,269 | 15,861,228 |

Source: Pechora Chief Economic Planner and Vodokanal Customer Service Department

The joint laboratory for testing water and wastewater quality is located in the wastewater treatment compound in a separate building. Although the laboratory is adequate to meet the current standards, the Chief of the Laboratory said that when the new regulations become effective on July 1, 1997, the laboratory will not have all the equipment needed to meet the analysis required by these regulations.

Both water and wastewater systems have as-built drawings showing the location of lines and shut-off valves. The Chief Engineer said that this tool had been very helpful in the older parts of the

system where the breaks have been more frequent. Additionally, in the winter when digging is especially difficult, the as-builts can reduce the work time in accurately locating valves and probable break points.

Outsourcing Vodokanal functions has not been considered by the Vodokanal or its parent company Pechorazhilkomkhoz. Some areas where the possibility of outsourcing can be done are motor pool services and maintenance, water and sewer line maintenance and, possibly the laboratory function.

2.2.5. Tariff Approval Process

The Pechora Vodokanal submits proposals for tariff increases directly to the Center for Information and Indexation created by the government of the Komi Republic for gathering information and approving tariffs. This body has broad-based authority to review utility tariffs and makes final decisions about what can be included in a tariff as well as the amount of increases for each item.

As a part of its regulatory role, the Center sets the level of profit allowed to be included in the tariff. Recently, in March 3, 1997, the Center reduced the "*rentabilnost*" or profitability that the Pechora Vodokanal could include in its tariff from 25 percent to 9 percent.

Current Russian Accounting Regulations and Russian Law (Decree No. 552) require that interest for long term debt be taken from "*rentabilnost*" or profitability. However, up to 50 percent of the profit tax can be taken as an offset for the interest as a profit tax credit. This helps somewhat but still limits the amount of debt that can be serviced and confuses the difference between true profit and expenses. At 9 percent profitability, the resources that can be made available for interest payments is severely restricted. Including interest for long term debt in the expenditures' portion of the tariff would be more transparent and would more clearly identify profits than the current practice.

The Vodokanal is ostensibly set up as a private enterprise meaning that its goal is to earn a profit and distribute dividends to its shareholders. On the other hand, vodokanals are expected to finance rehabilitation of their systems out of "profits." If the assets were fully owned by the Vodokanal as opposed to constructive use this might be appropriate. However, the Vodokanal does not own the assets. It cannot dispose of the assets without the approval of the parent enterprise and the municipal property committee. This quasi-public nature of the operation and ownership creates a barrier between full private ownership and operations, especially controls over the assets. If the Vodokanal is expected to rehabilitate its aging and poorly functioning systems, then all costs associated with doing so should be clearly part of the overall costs of providing the service. This is the practice in Western, industrialized economies. Further, the segregating of "cost" from "profit" would add clarity for the regulatory agency to evaluate the level of true profit.

Summary of Vodokanal System

Pechora's Vodokanal suffers from being a subsidiary to its parent enterprise, Pechorazhil-

komkhoz. Management and financial directions are dictated from the General Director of the parent company. While there may be some benefits of being a subsidiary, the stated reason for accumulating the five communal service enterprises into one organization was to lessen value added tax, serious drawbacks exist as well. In the Vodokanal's case, it has been a profitable enterprise, yet funds for needed repairs and maintenance or rehabilitation and funds that could be used to avoid fines for not making mandatory personnel costs payments have been siphoned off and used in the other communal service enterprises. If the Pechora Vodokanal is to be a financially self-sustaining enterprise, it should be separated from the other communal enterprises that make up Pechorazhilkomkhoz.

Additionally, the Vodokanal has not attempted to establish any demand management programs. Management has felt that the poor quality of the water may be a deterrent to over consumption but recognizes that should it succeed in improving the quality of the water it would also have to establish a demand management program in addition to its plans to install meters at the whole building level.

2.3. Recommended Institutional Reform

The following recommendations for changes in institutional/regulatory reform should be taken in conjunction with the financial/tariff recommendations provided in the financial analysis section of this report.

Recommendation 1.

Establish the Pechora Vodokanal as an independent, self-sustaining enterprise. To accomplish this, a new Charter will need to be written, the Agreements between the City Property Committee and Pechorazhilkomkhoz amended and new ones for the Vodokanal negotiated.

Recommendation 2.

The Pechora Vodokanal should be established as either an open joint stock company to enable it to work with all types of potential investors, or a municipal unitary enterprise. As a municipal unitary enterprise, the Vodokanal would operate essentially as a department of the City. The closed joint stock company limits the potential sources of investment capital to those who form the closed joint stock company.

Recommendation 3

Establish a service agreement between the Vodokanal and the City specifying performance targets for both and parties. The details of these agreements are discussed in the general overview chapters.

Recommendation 4

Establish a goal oriented strategic planning and budgeting system for upper management to follow. Management should be given the task of monitoring the differences between the budget and actual results. This practice is especially important in the limited cash environment in which

the Vodokanal is operating. Upper management should undertake the responsibility of ensuring that there is sufficient cash to cover any long term debt and other essential financial transactions.

Recommendation 5.

Consider and evaluate contracting out the billing and collection function through competitive bidding as compared with in-house billing and collecting. The above may allow for cost savings, greater efficiency and reduction in necessary work force.

Recommendation 6.

Review the entire operations in an effort to out-source as many functions that can be done by competitive bid to increase efficiency and reduce costs, including work force.

Recommendation 7.

Begin a demand management program that will address approximately one-half of the total water loss. This program can be started shortly after the production is metered and some meters are installed throughout the transmission system.

Recommendation 8.

Request that the City or Republic enact legislation requiring industrial pre-treatment of wastewater before it enters the wastewater system. Such a system should set standards and sanctions for those industries that do not meet them. The same legislation should allow for a sewage treatment surcharge for above average sewage that is below the threshold that would be fined.

Recommendation 9.

Establish a program to install production meters at the wells. Concurrently, in fluent meters should be installed at the sewage treatment plant. Install meters throughout the distribution system to enable early identification of system water leaks.

Recommendation 10.

The Vodokanal should request that the City or Republic require metering in all apartments of new buildings, all budget organizations and production enterprises and kept in working order or penalties be levied. The Vodokanal should establish a program of work with the City to install at least building-wide meters in those older residential buildings where the design does not economically lend itself to individual apartments.

Recommendation 11.

Make provisions to purchase new analytical equipment for the joint laboratory. The existing equipment is not calibrated nor sensitive enough to measure water and wastewater treatment of the new standards soon to be adopted.

3. FINANCIAL REVIEW AND TARIFF STUDY

Introduction

Pechora Vodokanal has seen a substantial reduction in the financial support that it formerly received from the Federal and Local governments. Problems with cash collection have further complicated financial management despite the fact that Pechora's 1996 total collection was 76% of the amount billed.

Pechora, like many other Russian Vodokanal's, has resorted to an increased use of barter and offsets to deal with waning levels of cash. In 1995, the Vodokanal received only 29 percent of its total collections in cash. Actual cash collections were only 3 percent of the total amount collected and less than one percent of total billed and opening balance for 1996 further underscoring the seriousness of the cash collection problem. At this level of cash collection, the Vodokanal is forced to delay payments of cash obligations. As was discussed in the previous section, the Vodokanal's subordinate status has further exacerbated its cash position.

3.1. The Current Tariff for Water/Waste Water

As of May 1, 1996, Vodokanal's tariff for water supply is 2,900 rubles per cubic meter and 1,633 rubles per cubic meter for wastewater treated. The total combined rate is 4,533 rubles per cubic meter. This tariff is currently applicable to residential users, budget organizations and production enterprises.

Residential consumers receive an 80 percent subsidy borne by the Municipal Fund. Through its parent company which consolidates all communal services charges, the Vodokanal bills 100 percent of the residential tariff to the City's Municipal Fund. The City in turn bills the residential consumers 20 percent of the combined communal services tariff and subsidizes the remainder out of other city revenues. In the past, the City has paid this eighty percent subsidy to the Vodokanal on a regular basis. However, the City has had cash flow problems of its own and has difficulty in making the periodic subsidy payments as well as forwarding on the twenty percent payment it receives from the residential customer. Another indicator of the difficulty that the City is having in forwarding the payments it receives from the residential customer as well as making up the subsidy it provides the residential customer is the amount of offsets it uses.

Tariffs have increased five times from 1995 to 1996 recording an increase of 480% for water supply and 250% for waste water treatment. Table 3 lists the increases in the water and wastewater tariffs. These tables do not contain all the costs that a full cost recovery tariff would require. There are no provisions for bad debt or debt service in the tariff figures shown in the table.

Table 3. Recent Tariff Increases by Customer Category

| Date | Feb. 1, 1995 | Mar 10, 1995 | May 1, 1995 | Feb. 1, 1996 | May 1, 1996 |
|-------------------|--------------|--------------|-------------|--------------|--------------|
| Water (in rubles) | 500 | 668 | 1,016 | 1,890 * | 2,900 |
| Sewer (in rubles) | 460 | 564 | 708 | 1,090 | 1,633 |

Source: Pechora Vodokanal Chief Economist

* As of February 1, 1996 a single rate was charged all customer categories. Prior to that time there was a different tariff for each customer category. What is shown above is the Residential category for that time frame.

Table 4 presents estimated consumption for each customer class. Although the Pechora Vodokanal meters production, consumption is not metered except the production enterprises. Residential units, except individual houses, and budget organizations are billed base on a norm. The norm for budget organizations is based on a statistical table indicating the average consumption developed in 1981 and issued by the Ministry of Construction Division of Communal Services as a part of the Instructions (regulations) to be used by the vodokanals. Additionally, the water losses are very difficult to quantify. Without the consumption being metered, it is impossible to determine with any accuracy what the losses are.

Table 4. Volume Billed by Customer Category and Estimated Consumption for 1996

| Customer Category | Number of Customers | Estimated Volume of Water Consumed (In m3) | Estimated Volume of Wastewater (In m3) | Total Consumption (In m3) |
|------------------------|---------------------|--|--|---------------------------|
| Population | 56,740 | 3,195,563 | 3,064,238 | 6,259,801 |
| Budget Organizations | 40 | 3,447,453 | 3,447,030 | 6,894,483 |
| Production Enterprises | 163 | 1,283,585 | 1,422,643 | 2,706,944 |
| Other | n/a | 358 | 358 | 716 |
| Total | | 7,926,959 | 7,934,269 | 15,861,228 |

Source: Chief Engineer of the Pechora Vodokanal

3.2. Financial Overview

Cash collections are a crucial element in our review of the revenues of Vodokanals. From Table 5, the decline in the Vodokanal's cash position is evident. Collection for 1995 was 66 percent and for 1996 it was 76 percent of the amount billed. Of the 1996 revenues, only 3 percent was received in cash with the rest being barter, offset and promissory notes. We will return to the discussion of receivables and their aging later in this review.

**Table 5. Cash Collections
Cash versus Non-Cash Collection - Pechora Vodokanal**

| | 1995 | | 1996 | |
|---|---------------------------|----------------------------------|------------------------------|----------------------------------|
| | Amount (In 000 Rubles) | Percent of Total Collected | Amount (In 000 Rubles) | Percent of Total Collected |
| Total Billed and Opening Balance | 19,014,830 | | 42,775,259 | |
| Cash Collections | 3,693,961 | 29% | 971,946 | 3% |
| Non-Cash Collections | | | | |
| Promissory Notes and Offsets | 6,037,748 | 48% | 29,680,238 | 85% |
| Barter | 2,899,857 | 23% | 4,208,790 | 12% |
| Total Collected | 12,631,566 | 100% | 34,860,974 | 100% |
| Total Collected as a Percent of Total Billed and Opening Balance | | 66% | | 76% |

3.3 Present Financial Management Policies and Systems

3.3.1. Organization of the Accounting Department

The Accounts Department of the Vodokanal is headed by a Chief Accountant. The Chief Accountant is assisted by the Deputy Chief Accountant. Each division of the accounting department has an accountant in charge. The divisions of the Accounting Department are:

- Billing section
- Payroll section
- Payments section
- Warehouse and Stores section
- Book keeping section.

The organization and the main functions of the divisions are described under the heading for each section. The bookkeeping function is carried out by the Chief Accountant and Deputy Chief Accountant. Additionally, the Chief Accountant performs all financial management functions and checks the work of the other accountants.

3.3.2. Financial Policies and Principles

3.3.2.1. Accounting

The Vodokanal follows the Russian system of accounting. The accounting codes used by the Pechora Vodokanal are the same as those required by the Russian Accounting Regulations.

3.3.2.2. Documentation

The Vodokanal has adequate documentation and formats to comply with Russian Accounting Regulations and other official financial reporting requirements. The filing system is satisfactory; files are neat, labeled and easily accessible.

3.3.2.3. Consistency

The accounting reports and financial statements are generally consistent from one year to another. Where they are not, the deviation is pointed out in the relevant sections of our report. Accounts have been prepared on a cash basis up to 1995. In 1996, accounts have been prepared on an accrual basis.

3.3.2.4. Inventory valuation

Inventory (spare parts, etc.) are valued on a first in first out basis (FIFO).

3.3.2.5. Depreciation

Through its charter, the Pechorazhilkomkhoz leases City owned water and wastewater assets on behalf of the Vodokanal. Thus when the parent company was established, City owned assets that were formerly leased by the Vodokanal were transferred to the parent company. Nevertheless, depreciation is applied to all the Vodokanal's assets including those owned by the City and leased to the parent company, Pechorazhilkomkhoz.

Fixed assets are depreciated annually following depreciation schedules established at the Federation level. Depreciation rates are applied on the cost of assets and are consistent from one year to the next. Various fixed asset categories as well as various assets of the same category have different depreciation rates. Some depreciation rates used by the Vodokanal are given below:

- Buildings - 2.5%
- Motor vehicles - 13%
- Pipelines - 2% to 5%.
- Equipment - 6% to 14%.
- Pumps - 12.5% to 20%.

3.3.2.6. Income tax withholding and social taxes

The Vodokanal withholds income tax on staff salaries and forwards withholdings and payments to social funds to the tax directorate and respective social funds. The Vodokanal pays social taxes on employee salaries to various funds including pension fund, medical fund, social insurance and other funds as required by the law.

3.3.2.7. Profit tax and other taxes

Profit tax is calculated at 35% of the annual taxable profit. In 1996, profit tax of the Vodokanal were offset, in part, against the losses of the main company. Other taxes include property tax and a tax for police services.

3.3.2.8. Contingent liabilities

As of the Balance Sheet date, there were no contingent liabilities or pending litigations against the Vodokanal.

4. FINANCIAL SYSTEMS AND CONTROLS

4.1. Billing and Collection

4.1.1 Billing

The Pechora Vodokanal is not registered as a legal entity. Therefore, the Vodokanal cannot enter into legally-binding agreements with third parties. Its parent, the Pechorazhilkomkhoz, contracts on behalf of the Vodokanal. Presently the Vodokanal's customer agreements are broken down into three main groups: population, budget organizations and production enterprises. In 1996, 224 agreements with enterprises representing residential customers had been finalized. Of this number, 200 agreements have been signed with housing collectives organized into enterprises; five agreements with local governments that own a portion of the apartmental housing (City of Pechora and four adjacent villages); and 19 agreements with industrial enterprises who provide housing for their employees (the housing and communal services have not been turned over to the City Property Committee).

The Vodokanal bills all customers. As previously mentioned, population customers (the 224 entities) are invoiced for 20 percent of total water and wastewater costs and the remainder is billed to the Municipal Fund of City of Pechora and villages.

The Vodokanal has several industries and commercial organizations as customers. Some of the largest customers are concrete manufacturing, ship building and repair, mining, baking and food processing. Commercial enterprises are mainly comprising food stores, building materials and groceries geared for the local market. However, the largest customers of the Vodokanal are the Heat Company where cold water in bulk is supplied to this company, and State Municipal Housing Fund. The heat company is billed on the based on its metered consumption of water. The monthly bill to the heat company is about 1.5 billion rubles whereas the monthly bill to the Municipal Fund is about one billion rubles.

The Vodokanal bills all customers monthly. The bills are prepared monthly within one week of the next month and delivered to its customers. Billing procedures are partially computerized. Monthly invoices are prepared by inputting water consumption data to the computer for each customer. Meanwhile, a register is maintained manually showing the invoice number, the name of the customer and the amount.

Billing and collection are the responsibility of the Accountant under the supervision of the Chief Accountant, an assistant and a water technician (who checks the water meter readings and gives the water consumption figures for billing). The staff of this section is quite competent and carries out their responsibilities satisfactorily.

4.1.2 Collection

Because the Vodokanal is not a legal entity, payments by customers are made to the parent company. The general bank account of the parent company is used for bank wire transfers by customers. The cash received by the parent company is credited to the Vodokanal. However, the cash received on behalf of the Vodokanal is not segregated by the parent company and therefore gets commingled with money received for other communal services provided by the parent company. The cash management by the parent company is so weak that all bank wire transfers received are diverted by the bank to mandatory payments like taxes and payments to funds that are significantly in arrears.

The parent company enters barter and offset agreements with customers of the Vodokanal. Offsets are on a ruble to ruble basis as also are the offsets between sums owed to and from third parties. As such, offsets are nearly as good as cash transactions. Almost all transactions with State enterprises are done on an offset basis.

Barters, however, present a problem in establishing the exchange of service value and the value of the bartered goods, not to mention holding and disposition costs. Additionally, barters attract value added taxes.

After merger with its parent company, barter has been used for paying salaries as well. The Vodokanal through the parent company issues coupons for the purchase of food in stores where it has worked out an agreement. Although, the internal control aspect on this type of barter is potentially weak, the Accountants take care to adhere to proper documentation and control any possible misuse of this weak system.

The parent company barter Vodokanal debts with third parties who are creditors to other subsidiaries of the parent company. This practice is unsatisfactory because there is no value for money being received by the Vodokanal from the barter system. The net result is that the amount due from the parent company continues to increase and there is no improvement in the Vodokanal's liquidity.

Cash received by the Vodokanal was 29% of the total collection in 1995 whereas in 1996, only 3% of collection was received in cash and bank wire transferred (see Index Section II, Table 10). Bank payments are not encouraged from customers because the wire transfers are automatically diverted by the bank to settle mandatory taxes and payments to social funds.

When payments are received at its bank in either cash or other methods, Vodokanal's parent company sends a statement showing the details, amounts and method of payment received by the parent company for the Vodokanal. The Vodokanal passes the accounting entries based on these advice. The current account with the parent company has been reconciled regularly.

4.2. Payroll System

The Vodokanal's payroll covers 369 employees. About 17 senior staff members of the Vodokanal have signed contracts of employment with the parent company. As the Vodokanal has no legal status, the other employees have no contracts of employment. All staff is paid monthly.

Payroll is managed through field cost centers under the supervision of center supervisors. Time sheets are maintained for staff in the field cost centers and the Supervisor checks and signs the time sheets. Monthly time sheets are approved at the field cost centers and sent to the office for the preparation of the payroll.

Each employee has a history card showing the rate of pay, personal data and monthly salary particulars. Although history cards are maintained manually, they are legible and well maintained.

Salary components of the payroll are comprised of basic salary, bonuses, regional coefficient of 30% of salary plus bonus, and north climate coefficient. Salary deductions are made for the following items: income tax, 1% pension fund contribution, salary advances paid in cash and coupons on barter system, 1% trade union contribution, and salary deductions for the payment of housing and communal services. The net salary for the month is aggregated with the balance brought forward from the previous month. A bonus is payable to employees when the Vodokanal makes profit. The basis of bonuses for various categories of staff is set out in a separate schedule. Bonuses are about 30% of the basic salary.

Preparation of the payroll is computerized. Pay slips are also produced by the computerized system. Individual pay slips are given to the employee for his or her information. Upon receipt of payment, the employee signs and acknowledges cash payments or the provision of coupons.

Coupons are issued to employees at their request. Coupons are used primarily for food items from bakeries and furniture. Employees can also request bartered goods available in the Vodokanal stores. When this transaction is made, 40% of the value of the goods is added to the transaction amount. To avoid this additional rate, the employees request coupons instead. Coupons are quite popular with employees. The Accounting Department handles the coupon transactions with adequate documentation, thus, minimizing errors and fraud at this weak point of the payroll system.

Salary advances are paid in cash covering basic salary and a part of the allowances. Payments made in cash and coupons cover about 60 to 80% of the gross salary minus the statutory deductions. The gross salary of a worker is about 1.2 million rubles. The amount of payable due to employees as of March 31, 1997 amounted to about 1 billion rubles which is approximately 25 percent of the total annual wages for the Vodokanal. The amount that the Vodokanal owes its employees is increasing and should be brought to a stop. Since the Vodokanal is a profitable organization, it should reduce the payable to its employees. Salaries of employees were paid regularly up to October 1995. The practice of paying a part of the gross salary started after the Vodokanal was merged with the Pechorazhilkomkhoz in October 1995.

The Payroll staff is comprised of an Accountant and a computer operator. Computer operator inputs payroll data which is then checked by the Accountant. The Chief Accountant does a test check and signs off the payroll together with the Accountant.

4.3. Cash Receipts and Payments System

Cash receipts and payments are the responsibility of the Accountant/Cashier. Cash receipts are received from some customers. Cash advances are received from the parent company particularly for the payment of salary advances. Cash receipts are supported by adequate documentation. Cash receipts are recorded in the cash book .

Cash payments are made once duly approved payment vouchers are received. Payment vouchers are approved by the Chief Accountant and the Director. Payment vouchers are serially numbered and filed. The cash book is checked by the Chief Accountant. All documentation with regard to cash receipts and payments are properly filed and easily accessible.

4.4. Inventory and Stores Control System

Spare parts and replacement items are stored in the parent company warehouse. Vodokanal inventory and spare parts items are located in a separate section of the warehouse. Purchasing function is the responsibility of the Purchasing Engineer. Goods received at the warehouse are acknowledged by the Store Keeper on a Goods Received Note. Raw material requirements of yards are sent to the Chief Engineer . The Chief Engineer approves the raw material requirements. The warehouse issues the raw materials. Stock cards are maintained at the warehouse showing the quantities received, issued and the balance in stock.

A stock ledger is maintained at the Accounts section by the Inventory Accountant. The stock ledger is computerized. Quantities and rates of raw materials purchases form the input data to the computer as well as the quantities of raw materials issued to yards. Stores items are identified by stock codes. Monthly totals of the value of stock items issued to various cost centers as shown in the computer printouts are summarized manually by the Inventory Accountant. Accounting entries are recorded on a monthly basis by crediting the stores account and debiting the cost of sales account (20) under raw materials consumed column with the total value of issues for the month.

The inventory is maintained on a First In First Out basis and is computerized. Physical verification of the inventory is done once a year by an independent team of staff. The verified balances are compared with the stock card balances.

4.5. Budgetary Control System

An annual financial plan (Budget) is prepared by the Economist of the Vodokanal. The Budget shows the revenue and expenses on a quarterly basis for the full year. It is not a detailed plan. Actual revenue and expenses are not compared for budget monitoring purposes in a methodical manner. A capital expenditure plan is also prepared. Actual capital expenses are about 30% of the plan.

The Vodokanal budget is not approved by the Vodokanal's management or its parent company. There is no cash flow forecast supporting the budget document. Further, the budget is used for internal uses only, it is not submitted to tariff approval authorities as justification for tariff increases.

4.6. Bookkeeping system

Posting of the general ledger is done by the chief accountant. The general ledger is written manually. Other books of account maintained are cash book, inventory ledger, payroll and salaries register, and billing register. Some of the subsidiary ledgers are computerized as was previously discussed.

The general ledger is posted by recording the monthly totals from the subsidiary ledgers. The general ledger shows the opening balance as of January 1 and December 31. However, a trial balance is not prepared by the Vodokanal. The Balance Sheet and the annual Financial Results statement of the Vodokanal are prepared from balances in the general ledger. These financial statements are filed with the Tax Directorate.

5. PECHORA VODOKANAL PROFIT AND LOSS

Our review has, thus far, looked at Pechora Vodokanals customers and the nature of its operating revenues. In the near GAAP restatement of financial statements, the Profit and Loss Statement reviews the vodokanal's overall financial activity for the year. However, many aspects of the Profit and Loss Statement should be noted.

Pechora Vodokanal showed a profit after tax but before depreciation of 1.8 billion Rubles in 1995 and 9.4 billion Rubles in 1996. Depreciation in 1996 increased by 172 percent primarily due to the revaluation of fixed assets in 1995.

5.1. Profit and Loss Statement Analysis

5.1.1. Sales Revenues and Cost of Sales

The increase in water and wastewater revenues is due to the five tariff increases in 1995 and 1996 resulted in a total increase of 480% for water supply and 255% for wastewater. The significant increase in profit in 1996 resulted from a more rapid increase in revenue than the increase in expenses. Table 8 below gives the major expenses for both years along with the percentage increase in expense categories.

**Table 6. Pechora Vodokanal Profit and Loss
for the Years ended December 31, 1995 and 1996**

| Item | 1995 (In 000s Rubles) | 1996 (In 000s Rubles) | Percent Change |
|--|--------------------------|--------------------------|-------------------|
| + Water and Sewer Revenue | 13,473,036 | 30,329,422 | 125% |
| + Other Income | 14,747 | 4,778 | -68% |
| = Total Revenues | 13,487,783 | 30,334,200 | 125% |
| - Total Expenses (excluding Depreciation) | (10,955,322) | (15,091,521) | 38% |
| = Net Income before Taxes and Depreciation. | 2,532,461 | 15,242,679 | |
| - Depreciation | (1,342,940) | (3,653,664) | |
| - Taxes (Non-labor) | (770,836) | (5,848,712) | |
| Net Income/(Loss) | 418,685 | 5,740,303 | |

Table 7. Pechora Vodokanal Expense Comparison - 1995 and 1996

| Expense | 1995 (In 000 Rubles) | Percent of Total | 1996 (In 000 Rubles) | Perce nt of Total | Increase 1995 to 1996 |
|---|----------------------------|---------------------|----------------------------|-------------------------|-----------------------------|
| + Salaries | 2,892,841 | 22% | 3,940,646 | 16% | 36% |
| + Bonuses | 364,029 | 3% | 525,379 | 2% | 44% |
| + Taxes and Mandatory Labor Payments | 1,202,341 | 9% | 2,295,546 | 9% | 91% |
| + Electricity | 3,002,431 | 23% | 3,991,259 | 16% | 33% |
| + Materials and Chemicals | 1,934,971 | 15% | 2,032,714 | 8% | 5% |
| + Repairs and Maintenance. | 10,102 | 0% | 0 | 0% | 5% |
| + Taxes (Excluding Labor Related) | 770,836 | 6% | 4,001,363 | 16% | 419% |
| + Depreciation | 1,342,940 | 10% | 3,653,664 | 15% | 172% |
| + General & Administration | 729,431 | 6% | 836,381 | 3% | 15% |
| + Support Shop Expenses (includes all labor costs of the Support Function.) | 535,750 | 4% | 1,253,219 | 5% | 134% |
| + Other Expenses * | 283,426 | 2% | 216,377 | 1% | -24% |
| + Fines | 0 | 0% | 1,847,349 | 8% | 0% |
| Total Expenses | 13,069,098 | 100% | 24,593,897 | 100% | 88% |

* Other expenses include such items as costs of support services from auxiliary department and overhead expenses. Depreciation expense has increased along with the revaluation of the assets.

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5.2. Balance Sheet Analysis

5.2.1. Accounts Receivable

The total accounts receivable as of December 31, 1996, was 7.9 billion rubles. This amount represents 26 percent of the total amount billed for the year. Of this amount, 3.5 billion rubles or 45 percent of the total accounts receivable are over one year in arrears. The accounts receivable between six months and one year in arrears is 1.8 billion rubles or 23 percent of the total accounts receivable. Accounts receivable less than six months old amounted to 2.6 billion rubles that represents 32 percent of the total accounts receivable. The Vodokanal is now and will need to continue to focus on getting payment from those accounts over one year old.

The unusually high rate of collection (over 98 percent) from the customer category population is due to two aspects to the billing. The first aspect is that Pechorazhilkomkhoz bills the population customer for 20 percent of its total communal services bill and the Municipal Fund of City of Pechora for the remainder. This helps explain the high receivable for the customer category of Budget Organizations as well as the slowness of payment for that customer category. In essence, the 98 percent collection rate covers only 20 percent of the total bill for the population category. Another aspect, and perhaps unique, is the deduction from the employees of Pechorazhilkomkhoz for their water and sewer bill. The parent enterprise, providing nearly all communal services in Pechora, has a total of 1,650 employees.

**Table 8. Accounts Receivable by Customer Category as of December 31, 1996
(In 000 Rubles)**

| Total | Population | Budget Organizations | Enterprises | Other |
|------------------|------------|----------------------|-------------|---------|
| 7,914,278 | 3,013,087 | 4,509,772 | 251,314 | 139,805 |
| Percent of Total | 38% | 57% | 3% | 2% |

Fifty seven percent of these accounts receivable are owed by government enterprises of the City.

5.2.2. Bad Debt Estimate

The Vodokanal does not currently write-off or put into a reserve account a percentage of its accounts receivables as bad debt. As of December 31, 1996, its accounts receivable was 7,914,278,000 rubles. This amount is 22% of the total billed for 1996. Based on Russian law and Accounting Regulations, Vodokanals write-off accounts receivable for enterprises only after they have been declared bankrupt or after a three year waiting period. Given that they must wait for three years to write off doubtful accounts and given the high inflation rate for the last three years, the amount of non-governmental receivables is negligible. Governmental accounts receivable are considered collectible because they will eventually be paid by cash, offset or promissory note. However, some portion of the accounts receivable will not be collected and the inflation rate is stabilizing. For purposes of projecting expenses while carrying a loan, the PADCO loan model assumes a 5 percent of the total billed as bad debt

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expense. Although, it must be kept in mind that there will need to be changes in Russian Federal legislation and accounting regulations for the vodokanals to carry out this procedure.

The amount of accounts receivable over one year old from budget organizations may be bartered or offset as well as paid in cash. The same is true of the amount owed by the production enterprises. Hence, the amount that is actually considered uncollectible is relatively small. As of December 31, 1996, it was estimated to be 18,416,000 rubles. The distinction between the estimated bad debt based on the accounting information and the loan model is that the loan model assumes an independent enterprise as opposed to the subsidiary relationship the Vodokanal has to Pechorzhilkomkhoz. As an independent enterprise the Vodokanal will not have the freedom to transfer payments from one category to another or from one service to another as the parent enterprise has been able to do. This will, in turn, allow for fewer barter and offset transactions that would reduce the Vodokanal accounts receivable and potential for bad debt to occur. In other words, the accounts receivable is expected to grow significantly for the Vodokanal and along with it the bad debt expense.

5.2.3. Accounts Payable

In 1996, accounts payable (including salaries and social taxes payable) grew by 187 percent from 2.5 billion rubles at the beginning of the year to 7.4 billion rubles at end of the year. Of this amount, 13 percent was over one year old. A portion of the amount over one year old represents accounts payable that are difficult to barter or pay by offset. Sixty-four percent of the accounts payable is for salaries and social taxes payable. These two categories of payables are mounting because of the very low cash collection by the Vodokanal. Additionally, heavy penalties accrue because of non-payment of the social funds. The rather quick build up of accounts payable needs to be addressed immediately.

6. FINANCIAL ANALYSIS SUMMARY

The Pechora Vodokanal could be in a position to be financially self-sustaining based on the tariffs that have been approved and the profitability analysis has shown for 1995 and 1996. However, as we have described above, by being a subsidiary of the larger communal housing and services enterprise, the Vodokanal does not have financial decision-making autonomy. Even the profitability and apparent self-sustainability may be at stake if the collection of cash is not increased. Certainly carrying debt service for loans is highly questionable when cash receipts are less than ten percent of the total receipts. Financial independence from the parent enterprise and greater cash collections are the two most critical problems standing in the way of Vodokanal autonomy and self-management.

There are other issues in the financial management and policies of the Pechora Vodokanal that we feel need to be addressed and are incorporated in the recommendations listed below.

6.1. Recommendations

6.1.1. Billing and collection system

1) The Vodokanal needs to have its own legal status as soon as possible so that it can manage the collection of funds in a more direct and an efficient manner. The Vodokanal needs to be free of the liquidity problems of the other subsidiary companies of the parent company.

2) Barter system is an ancient method of completing transactions and perhaps dates back to the stone age when legal currency was not in existence. Barter transactions need to be minimized and discouraged. Offsets from State enterprises may be acceptable because they exchange ruble for ruble payments. Bank wire transfer is the legal and the most acceptable method of settlement of accounts. The Vodokanal should insist that production enterprises (these are non-governmental) pay in cash. Since the City collects about 20% of the bills in cash from the population, the Vodokanal should insist that the City pay that 20% in cash. The Vodokanal should open its own bank account once its legal status has been established. The bank account should be kept free of any lien or restriction so that the Vodokanal can plan its cash management more efficiently and effectively.

3) Monthly billing and collection records that are manually maintained by the Vodokanal could be computerized. It can be either integrated to the existing computerized billing system or simple spreadsheets could be developed in-house for this purpose to replace the cumbersome handwritten records..

6.1.2. Payroll System

4) Employee salaries need to be paid in full and on time as was done prior to October 1995. It is important that the employees be adequately and timely remunerated for their efforts. There is no reason for accumulating arrears of salary payments particularly when the Vodokanal is showing significant profits. This is a reflection of poor cash planning and management by the management of the Vodokanal and / or interference by the management of the parent company.

Full employee salaries should be paid in cash rather than barter with coupons. Barter in coupons weakens the payroll system.

5) It is recommended that the employees of the Vodokanal be issued with letters of appointment to give them the feeling of security of employment, once the Vodokanal establishes its legal status. However, some of the unskilled workers may continue as casual labor.

6.1.3. Budgetary control system

6) The budget needs to be a detailed document. Details of calculation of arriving at revenue and expense figures should be shown. Details should include: quantities, rate and value wherever possible. Inputs from other departments are necessary to compile a realistic budget. Then the draft budget document should be discussed with the management of the Vodokanal. The final budget should be approved by its management.

Actual revenue and expense figures should be compared on a monthly or quarterly basis and the variances analyzed. Significant adverse variances should be investigated and corrective action taken where necessary.

While budgeting a cash plan should be prepared to show the cash receipts and payments on a monthly basis for the ensuing year. Cash planning is critical to the Vodokanal because of the cash problem that the Vodokanal is facing at the present time in spite of making significant profits.

6.1.4. Bookkeeping System

7) A trial balance should be prepared on December 31. The Balance Sheet should be prepared from the trial balance.

8) The general ledger be computerized because of the number of additions that have to be done. To start with, a simple spread sheet system may be adequate. An integrated accounting system covering the general ledger and the subsidiary ledgers should be installed.

7. LOAN FEASIBILITY

Under current conditions, the Pechora Vodokanal is NOT in a position to service debt at any significant level. However, even if several criteria are met, the maximum loan level indicated by the PADCO loan feasibility model of \$1.5 million dollars may be borrowed by the Vodokanal. The loan amounts are arrived at by assuming a collection rate approaching 95 percent. Further, the model inherently assumes a 50 percent cash collection rate. More importantly, the interest on the capital investment loan is financed "out-of-profit" thereby imposing a soft ceiling on the Vodokanal's borrowing. It is this "soft ceiling" that is one of the major constraints for the Vodokanal's ability to borrow. The nine percent profitability combined with the fact that interest for a loan must come out of profitability and that bad debt is not considered an expense all reduce the amount the Vodokanal can borrow. To illustrate, the same criteria was held constant except for the allowed profitability to illustrate the impact it had on the amount of loan the Vodokanal could carry. If the allowed profitability were increased to 15 percent, all other things being equal, the Vodokanal could borrow up to \$5 million dollars as opposed to the \$1.5 million dollar maximum it would qualify for, provided it meets all the preconditions. Additionally, the profit tax credit is assumed up to the 50 percent of tax when appropriate. These are relatively stringent financial criteria. The Pechora Vodokanal currently is not able to satisfy these financial prerequisites, especially the cash requirements. It is recommended that it meet all the following priority action items in order to become financially self-sustaining and capable of carrying the loan projected.

7.1. Loan Potential

Once the Pechora Vodokanal meets the priority conditions enumerated above it would be able to borrow for capital improvements. A maximum loan of \$1.5 million is illustrated below. However, this loan projection is considered feasible only if the criteria above are met. That is, 50 PERCENT CASH COLLECTION, A TOTAL COLLECTION RATE OF 95

PERCENT AND A BAD DEBT EXPENSE OF 5 PERCENT. With a loan of \$1.5 million, the combined tariff would have to increase to 5,983 rubles per m³ by the year 2003. Since the interest from the loan is "out of profit", the interest outlays would drive the net after tax position of the Pechora Vodokanal into negative cash flow for a loan greater than the \$1.5 million.

**Table 10. Estimated Combined Tariff For U.S. \$1.5 million loan
(in Rubles)**

| | Estimated Full Cost Recovery | | | |
|---|------------------------------|------------|------------|------------|
| | 1996 | 1997 | 2000 | 2003 |
| Estimated Total Expenses ('000s) | 24,593,897 | 27,900,230 | 42,432,763 | 71,976,081 |
| Average Cost per m ³ | 1,551 | 1,759 | 3,643 | 5,823 |
| Profitability of 10% of Average Cost M ³ (including VAT) | 2,140 | 2,301 | 5,027 | 7,616 |

**Table 11. Estimated Combined Tariff if Profitability were 15 Percent
(In Rubles Unless Otherwise Stated)**

| | Estimated Full Cost Recovery | | | |
|---|------------------------------|------------|------------|------------|
| | 1996 | 1997 | 2000 | 2003 |
| Estimated Total Expenses (in 000 rubles) | 24,593,897 | 27,900,230 | 42,432,763 | 71,976,081 |
| Average cost per m ³ | 1,551 | 1,759 | 3,643 | 5,823 |
| Profitability and VAT-Average Cost per m ³ | 2,140 | 2,301 | 5,027 | 8,035 |

7.1.1. Cash Collections

The PADCO review of the sampled vodokanal's financial requirements indicate that the average current level of cash collections (19 percent) is extremely low. Pechora's is 3 percent for 1996. In order to make timely debt repayments, and necessary operating expense payments, the vodokanal will need to dramatically increase its level of cash collections to at least 50 percent. The minimum 50 percent cash requirement assumes the following:

- Federal taxes must be paid in cash. Some VAT payable can be paid via offset arrangement.
- Payroll and other mandatory payments must also be made in cash.
- At a minimum, 70 percent of the electricity outlay must be in cash.
- Emergency costs and purchases of items outside the local area would require at least 40 percent cash payment. Expenditures tied to repairs and contracting service are assumed to be at a very minimum 50 percent in cash.

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- All debt service (interest plus principle) must be repaid in cash.

7.1.2. *Total Collections*

The 67 percent level of average total collections is significantly deficient from the PADCO tariff/loan forecast model's 95 percent level of total collections. At 81 percent collection of billed, Pechora must significantly increase its collection rate to reach the 95 percent level.¹ Further, the composition, quality and timing of collections is a major limitation in the current vodokanal's financial environment. As a result, it is recommended that Pechora Vodokanal total collections improve to at least 95% before any significant level of borrowing begins.

7.1.3. *Profitability*

The average level of the sampled group's 1996 profitability is -8.9 percent. Five of the 10 vodokanals showed significant negative profitability. Pechora was one of the few vodokanals with a positive 48 percent actual profit as a percent of expenses. The actual financial status of all surveyed utilities is more dire than these profitability percentages indicate. The abovementioned profitability figures are calculated on an accrual billed revenue and billed expense basis. On average, the sampled group of utilities was able to collect 67% of what it billed. None of the vodokanals write-off or have established bad debt reserves. Receivables are on average 4.7 months of billings and expanding. The Pechora Vodokanal average is 3 months of billings.

In connection with the Russian Federation Water and Wastewater Project loan implementation schedule, the following table outlines priority actions and implementation time line for each vodokanal to satisfy before long-term borrowing can realistically be initiated:

¹ In order to account for the prior year payments, PADCO consultants combined total billed with the beginning balance of accounts receivable then divided that into the amount received for 1996 to arrive at the collection rate.

**Table 12. Vodokanal Debt Service Priority Actions
and Implementation Time Line**

| Vodokanal Priority Action | Implementation Date | Corresponding Project Activity |
|---|----------------------------|---------------------------------------|
| Collect at least 50 percent of all user charges in cash ¹ | October 1997 | Loan Appraisal |
| <i>Collect at least 80 percent of all billings.</i> ² | December 1997 | Board Presentation |
| <i>Bill full-cost tariffs</i> | December 1997 | Board Presentation |
| <i>Meter at least 40 percent of all consumption.</i> ³ | February 1997 | Negotiations |
| <i>Eliminate cross subsidies</i> | August 1998 | Loan Effectivity |
| <i>Expand the Housing and Allowance Subsidy Program ("HASP") to incorporate the participation of at least 20 percent of all local families</i> ⁴ | August 1998 | Loan Effectivity |

7.1.4. Reforming Current Tariff-Setting Practices

This section presents a set of recommendations and action plan for the Pechora Vodokanal corporate management and local/regional government policy-makers. A preferred tariff structure is described, followed by a description of other water/wastewater related charges that need to be introduced or modified.

7.1.5. Cost-Recovery Pricing

Full cost recovery pricing should be the key of the Pechora Vodokanal's pricing policy. Tariffs should reflect the full marginal cost of water and sewerage service delivery and sustainability. Full cost pricing however, cannot be achieved unless bad-debt expenses, unaccounted for water, and the cost(s) of debt service are taken into account. Specific recommendations include:

- Identify a portion of accounts receivables as a bad debt expense.* Bad debt expense can initially be calculated by identifying the total value of accounts that are greater than six months or more overdue. Customer profiles should be individually reviewed to determine whether there is an ability to pay the Pechora Vodokanal. A certain percentage of the accounts receivables can be calculated and defined as "bad debt expense".² The "bad debt expense" percentage (or value) should be incorporated into the normal tariff setting

² It is recommended that a thorough evaluation of accounts receivable proceed at least every quarter

process. Bad debt allowances should be periodically reviewed (i.e., every quarter) to determine which accounts are still collectable and those that should be written off as bad debt. Service to bad debtor's should be turned off.

2. ***Improve User Charge Collection and Enforcement.*** Some different ways in which collections can be increased include: notifying and then shutting off service for delinquent customers; reducing in-kind payments; establishing automatic payment procedures from the bank account of customers; and, designing and implementing a system of fines.
3. ***Development More Efficient Cost Accounting Systems.*** At present the Pechora Vodokanal has very good fundamental financial information. However, it is apparent that the system is relatively inefficient with respect to understanding the true cost of the individual water or sewerage operations. The Pechora accounting department needs to computerize all its financial transaction recording and to implement a cost account system concurrently. A positive byproduct of a more accurate cost accounting system would be the potential for more accurate tariff calculations.
4. ***50% Minimum Cash Requirement*** The PADCO review of the Vodokanal's financial requirements indicates that the current level of cash collection (about 19 percent) is extremely low. In order to make timely debt repayments, and necessary operating expense payments, the Vodokanal will need to dramatically increase its level of cash collections to around 50 percent. The 50% cash requirement level assumes the following:
 - A. Federal taxes must be paid in cash. VAT can be paid via offset arrangement,.
 - B. Payroll and other mandatory payments must also be made in cash;
 - C. At a minimum, 70% of the electricity outlay must be in cash;
 - D. Emergency costs and purchases of items outside the local area would require cash payment. Expenditures tied to repairs and contracting service are assumed to be at a very minimum 50% in cash, and
 - E. All debt service (interest plus principle) must be repaid in cash.
5. ***Discontinue Barter/Offsets to the Extent Possible.*** The increased use of barter/offsets is leading to the demonetization of the local (and national) economy. Barter/offsets involve relatively high transaction costs that are currently not being recouped by the Orel Vodokanal. The Orel Vodokanal should discontinue the practice of barter/offsets or at the very minimum attach a surcharge for engaging in this practice.

3. Explanatory Notes to Accounts

Balance Sheet:

Note 1. Fixed Assets

Fixed assets were revalued in 1995 by using a multiplier of 3.99 times. In 1995, all fixed assets (except the buildings) were transferred to a State entity called Customer Service Company. This company was liquidated in 1996 and the assets were taken over by Pechorazhilkomkhoz (parent company to the Vodokanal). However, the value of fixed assets transferred to the parent company was restated in the Balance Sheet of the Vodokanal by passing a subsequent journal entry shown in Table 5/95. A revaluation was long overdue because of the significant depreciation of the ruble in the past decade. A more accurate value of fixed assets could be obtained by conducting an on site physical valuation by a professional valuation expert. However, the cost of such an exercise is substantial.

The movement in fixed assets account is shown in Table 4. A detailed list of fixed assets is available in the Accounting Department of the Vodokanal.

Note 2. Accumulated Depreciation

Accumulated depreciation was also increased by using a multiplier of 3.99 times to account for the revaluation of fixed assets. Corresponding accumulated depreciation was also transferred to the parent company in 1995. However, the value of accumulated depreciation transferred to the parent company was restated in the Balance Sheet of the Vodokanal by passing a journal entry shown in Table 5/95. The movement in this account for 1995 and 1996 is shown in Table 4.

Note 3. Inventories

Inventories are valued at First In First Out basis.

Note 4. VAT on Materials

The balance on this account is available for set off against VAT payable in future years.

Note 5. Accounts Receivable

Accounts receivable increased by 290% in 1995. The collection efficiency in 1995 and 1996 was 66% and 76% respectively (see Table 8). Collection by off-sets as a percentage to total collection in 1995 and 1996 was 45% and 82% respectively. Collection by barter in 1995 and 1996 was 23% and 12% respectively. Collection in cash in 1995 and 1996 was 29% and 3% respectively (see Table 8).

Collection by off-sets is a ruble to ruble transaction and, therefore, is as good as cash provided the off-sets is done with the Vodokanal payables. The parent company has off-set some of the Vodokanal receivables with that of payables of other subsidiary companies of the parent company. This is not an acceptable method of collection because the net effect is that the receivable gets transferred to the parent company account.

The Vodokanal identified 22 million rubles as bad debts out of the receivables. This amount is due from firms that are bankrupt. Accounts receivable accounts are cleared when: (I) payment is made and checked by an accountant of the Vodokanal, (ii) an arrangement to barter and off-sets is made with the budget organizations and State enterprises. Budgetary organizations owe 97% of the accounts receivable older outstanding for more than one year. These debts are generally collected by off-sets.

Note 6. Inter-company Receivable

The amount due from the parent company in 1996 was 6.4 billion rubles. This balance represents (i) balance due to the Vodokanal on account of bank wire transfers received by the parent company from Vodokanal customers, net of payments made by the parent company on behalf of Vodokanal, and (ii) off-sets done by the parent company by off-setting Vodokanal receivables with other subsidiary payables.

Net profit of 5.7 billion rubles in 1996 was transferred by the Vodokanal to the parent company. This entry was reversed by a journal entry when we restated the Balance Sheet (see Table 5/96).

Note 7. Cash Balances

The Vodokanal does not have a bank account. Cash balance as at December 31, 1996 was at a dangerously low level of 108,000 rubles.

Note 8. Salaries Payable

An amount of 0.9 billion rubles is due to employees. The Vodokanal does not settle in full the total salary. The balance on this account represent the unpaid portion of the Vodokanal employee salaries.

Note 9. Social Taxes Payable

Payment of social taxes are in arrears. Heavy penalties are being paid by the Vodokanal for late payment of taxes.

Note 10 Working Capital

Payables are covered by receivables. The large working capital surplus of 7.6 billion rubles as of December 1996 is because of the balance due from the parent company.

Note 11 Contributed Capital

Contributed capital was transferred to the parent company when the Vodokanal was merged with the parent company.

Note 12 Reserve Funds

This balance on this account represent the revaluation surplus.

Note 13 Profit and Loss Balance

Net profit for the year after all expenses including profit tax are shown in this account.

Explanatory notes to Profit and Loss Statement

The Profit and Loss Statement for 1995 and 1996 is shown in Table 6. Revenue for 1995 was accounted on a cash basis. Actual revenue for 1995 was obtained from the Vodokanal and shown in the Profit and Loss account so as to bring the accounting to an accrual basis. A journal entry was written to bring the account to an accrual basis (see Table 5/95). The Vodokanal changed its accounting policy from a cash basis to an accrual basis in 1996. Expense figures were obtained by analyzing the cost of sales account.

Note 1. Revenue from Water and Waste Water

Revenue increased by 125% in 1996 because of the increase in tariff.

Note 2. Fines for Late Payment of Taxes

In 1996, 1.8 billion rubles was paid as fines for late payment of taxes.

Note 3. Profit Tax

Profit tax has been calculated at 35% of taxable profits for the year.

Note 4. Net Profit for the Year

Net profit after all expenses and profit tax for 1996 increased by 13 times. The main reason for this significant improvement was the very significant increase in the tariff in 1996.

4. Ratio Analysis and Interpretation of Results

A set of ratios is shown in Table 15. Highlights of the ratio analysis are: (i) lack of cash resources of the Vodokanal for future operations unless corrective action is taken immediately, (ii) heavy fines being paid for late payment of taxes and mandatory payments, (iii) high rate of return in 1996.

The current cash balance cannot cover any current liabilities. Fines for late payment of taxes are as high as 6% of revenue. Although the working capital ratio is satisfactory, available cash is absorbed by the parent company. The parent company is having critical liquidity problems of its own because of the large losses of other subsidiaries in its total group of enterprises.

The average collection period in 1996 is 3 months which is satisfactory for a utility service firm. Net profit ratios have significantly increased in 1996 because of the increase in tariffs in 1996.

APPENDIX 11 - FINANCIAL, TARIFF, AND ACCOUNTING DATA

Section 1. Required Tariff Level for Loan Scenarios

1. Required tariffs to service three loan scenarios
2. Debt service table to accompany loan scenarios

Section 11. Restated Financial Statements and Accompanying Tables

1. Trial balance for 1995
2. Trail balance for 1996
3. Connecting table, connecting trial balance to balance sheets for 1995
4. Connection table for 1996
5. Balance Sheet for 1995
6. Balance Sheet for 1996
7. Explanatory tables to the balance sheet
8. Journal entries for 1995
9. Journal entries for 1996
10. Profit and Loss Statement for 1995
11. Profit and Loss Statement for 1996
12. Sources and Uses Statement for 1995 and 1996
13. Collection analysis table for 1995
14. Collection analysis table for 1996
15. Accounts receivable for 1995
16. Accounts receivable for 1996
17. Analysis of taxes and other mandatory payments for 1995
18. Analysis of taxes and other mandatory payments for 1996
19. Major expenditures for 1995
20. Major expenditures for 1996
21. Aging of accounts receivable for 1995
22. Aging of accounts receivable for 1996
23. Changes in accounts payable for 1995
24. Changes in accounts payable for 1996
25. Changes in accounts payable (including subsidiary company barthers and offsets)
26. Aging of accounts payable for 1995
27. Aging of accounts payable for 1996
28. Ratio analysis for 1996.

Annex 1. Assessment of Vodokanal's past and current financial position

SECTION I

REQUIRED TARIFF LEVELS FOR LOAN SCENARIOS

ra Vodokanal

COMPUTATION OF TARIFF LEVELS
Scenario II \$ 1.5 Million

| (in '000 Rubles) | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Expenses: | | | | | | | | |
| | 6 761 571 | 7 775 807 | 8 942 178 | 10 283 504 | 11 826 030 | 13 599 934 | 15 639 925 | 17 985 913 |
| | 3 991 259 | 4 589 948 | 5 278 440 | 6 070 206 | 6 980 737 | 8 027 847 | 9 232 025 | 10 616 828 |
| and Materials | 2 032 714 | 2 337 621 | 2 688 264 | 3 091 504 | 3 555 229 | 4 088 514 | 4 701 791 | 5 407 060 |
| | 7 748 | 8 910 | 10 247 | 11 784 | 13 551 | 15 584 | 17 922 | 20 610 |
| er Than Profit | 4 001 363 | 4 401 499 | 5 061 724 | 5 820 983 | 6 694 130 | 7 698 250 | 8 852 987 | 10 180 935 |
| nses | 3 538 894 | 4 069 728 | 4 680 187 | 5 382 215 | 6 189 548 | 7 117 980 | 8 185 677 | 9 413 528 |
| Collections*** | 606 684 | 697 687 | 802 340 | 922 691 | 1 061 094 | 1 220 258 | 1 403 297 | 1 613 792 |
| on | 3 653 664 | 4 019 030 | 4 621 885 | 5 315 168 | 6 112 443 | 7 029 309 | 8 083 706 | 9 296 262 |
| + Depreciation-Principal Debt Coverage | 0 | 0 | 0 | 0 | 0 | 1 348 191 | 1 509 974 | 1 691 171 |
| Deprec. of the 10% VKO Match and VAT | | | | | | 431 421 | 483 192 | 541 175 |
| Total Expenses | 24 593 897 | 27 900 230 | 32 085 265 | 36 898 054 | 42 432 763 | 50 577 290 | 58 110 495 | 66 767 274 |
| Water / Sewerage Sold (tm3) | 15 861 | 15 861 | 14 275 | 11 420 | 11 648 | 11 881 | 12 119 | 12 361 |
| ost per m3 | 1 551 | 1 759 | 2 248 | 3 231 | 3 643 | 4 257 | 4 795 | 5 401 |
| ty of 9% of Average Cost m3 | 1 783 | 2 023 | 2 585 | 3 716 | 4 189 | 4 895 | 5 514 | 6 212 |
| Combined Tariff with VAT | 2 140 | 2 427 | 3 102 | 4 459 | 5 027 | 5 875 | 6 617 | 7 454 |
| enue | 28 282 982 | 32 085 265 | 36 898 054 | 42 432 763 | 48 797 677 | 58 163 883 | 66 827 069 | 76 782 365 |
| eserve | 1 414 149 | 1 604 263 | 1 844 903 | 2 121 638 | 2 439 884 | 2 908 194 | 3 341 353 | 3 839 118 |
| ce Interest Payment* | | | 515 890 | 866 694 | 970 698 | 1 087 182 | 1 217 643 | 1 363 761 |
| itability | 2 274 935 | 2 580 771 | 2 967 887 | 3 413 070 | 3 925 031 | 4 678 399 | 5 375 221 | 6 175 973 |
| Profit Taxes*** | 796 227 | 903 270 | 1 038 760 | 1 194 575 | 1 373 761 | 1 637 440 | 1 881 327 | 2 161 590 |
| Plus Capital Improvement Interest Credit | 1 478 708 | 1 677 501 | 1 593 798 | 1 655 144 | 1 920 316 | 2 334 292 | 2 702 425 | 3 127 938 |

Associated with billing and collection services are estimated to be 2% of general population billings.

tion to cover principle debt coverage is assumed to be sufficient to carry out principle payments.

match of the VKO and the VAT associated with the project expenditures are amortized over the life fo the loan.

enue is calculated using the volume sold times the average cost per m3.

write off is assumed to be 5% of the total amount billed.

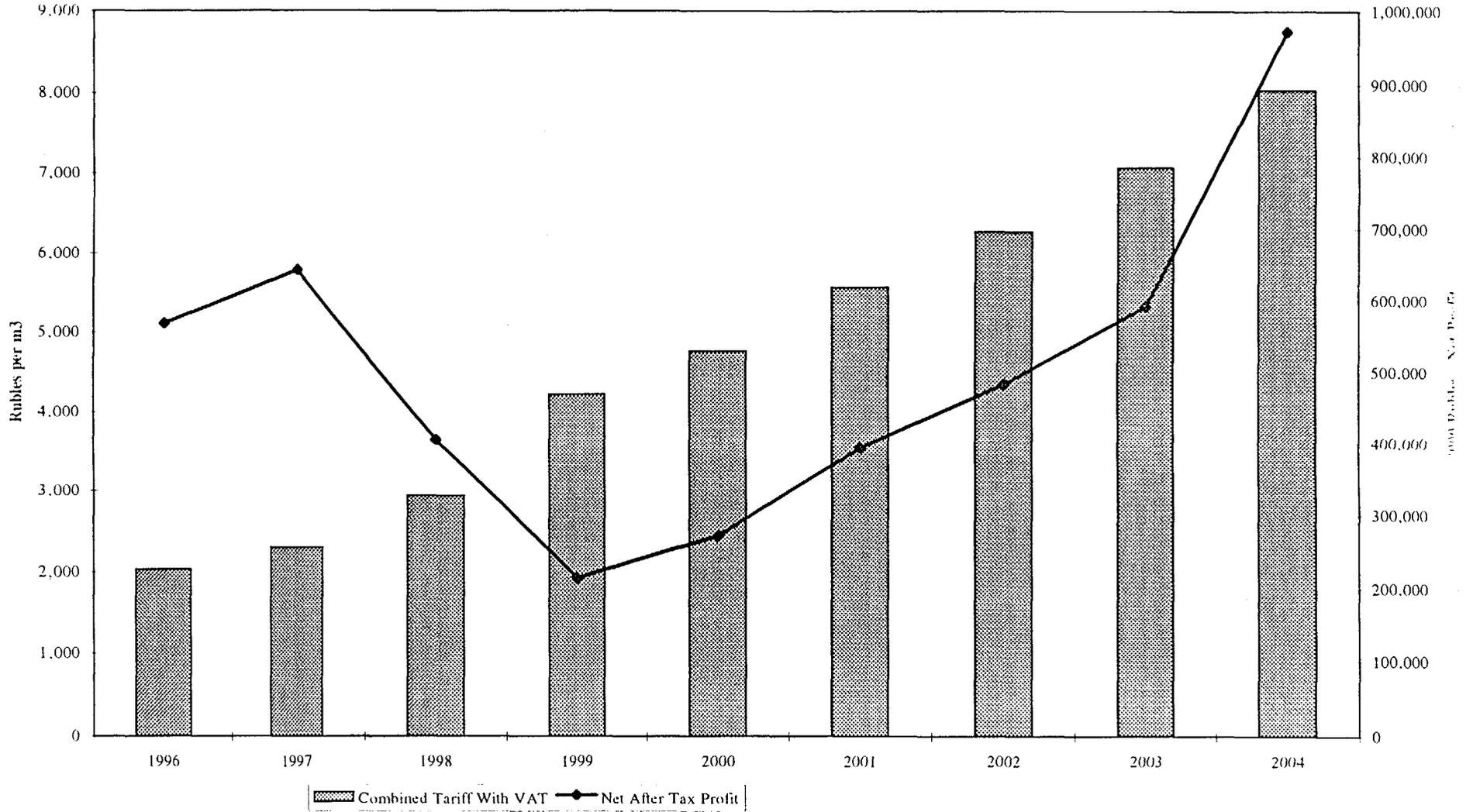
ment tax credit is assumed to be granted. This amounts to one-half the profit tax or 18% of profit.

reflect drops in volumes of water and wastewater as a result of efficiencies and metering. 1998-10%

for a gradual increase in the volumes at 2% growth per year thereafter.

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Combined Tariff With Net After Tax Profit For Loan of \$ 1. 5 Million



Pechora Vodokanal

Scenario I \$ 1.5 Million

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|-------------------|------------|------|------|------|------|------|------|------|------|
| Vodokanal Revenue | | | | | | | | | |
| Water Revenue | 19,262,820 | | | | | | | | |
| Sewerage Revenue | 11,066,602 | | | | | | | | |
| Other Income | 4,778 | | | | | | | | |

| | |
|---------------------|------|
| Ruble Exchange Rate | 5100 |
|---------------------|------|

| | | | | | | | | | |
|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Vodokanal Profitability | 9% | 9% | 9% | 9% | 9% | 9% | 9% | 9% | 9% |
| VAT | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% |
| 10% VK - Matching | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% |
| Profit Tax | 35% | 35% | 35% | 35% | 35% | 35% | 35% | 35% | 35% |
| Investment Tax Credit | 18% | 18% | 18% | 18% | 18% | 18% | 18% | 18% | 18% |

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|-------------------------|-------------------|------|------|------|------|------|------|------|------|
| Expenses | | | | | | | | | |
| Personnel | 6,761,571 | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Energy | 3,991,259 | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Chemicals and Materials | 2,032,714 | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Repairs | 7,748 | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Other Expenses | 3,538,894 | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Taxes Other Than Profit | 4,001,363 | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Depreciation | 3,653,664 | 10% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| Billing/Collection Fee | 0 | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Total | 23,987,213 | | | | | | | | |

Exchange Rate:

| | | | | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| Ruble Exchange Rate | 5,100 | | | | | | | | |
| Russian Inflation Forecast | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% | 15% |
| U.S. Inflation Rate Forecast | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Ruble Forecast | | 5,712 | 6,397 | 7,165 | 8,025 | 8,988 | 10,066 | 11,274 | 12,627 |

Volume of Water and Sewerage Sold (000 m3)

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Water Volume | 7,927 | 7,927 | 7,134 | 5,707 | 5,822 | 5,938 | 6,057 | 6,178 | 6,301 |
| Sewerage Volume | 7,934 | 7,934 | 7,141 | 5,712 | 5,827 | 5,943 | 6,062 | 6,183 | 6,183 |
| % Change Water | | 0% | 10% | 20% | -2% | -2% | -2% | -2% | -2% |
| % Change Sewerage | | 0% | 10% | 20% | -2% | -2% | -2% | -2% | -2% |
| Bad Debt Reserve | 5% | | | | | | | | |

| | | | | | | | | | |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Debt Multiplier | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 | 1,000,000 |
| Conversion Factor - '000 Rubles | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |

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a Vodokanal

COMPUTATION OF TARIFF LEVELS

Scenario II \$ 5 Million

| <i>(in '000 Rubles)</i> | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Expenses: | | | | | | | | |
| | 6 761 571 | 7 775 807 | 8 942 178 | 10 283 504 | 11 826 030 | 13 599 934 | 15 639 925 | 17 985 913 |
| | 3 991 259 | 4 589 948 | 5 278 440 | 6 070 206 | 6 980 737 | 8 027 847 | 9 232 025 | 10 616 828 |
| and Materials | 2 032 714 | 2 337 621 | 2 688 264 | 3 091 504 | 3 555 229 | 4 088 514 | 4 701 791 | 5 407 060 |
| | 7 748 | 8 910 | 10 247 | 11 784 | 13 551 | 15 584 | 17 922 | 20 610 |
| er Than Profit | 4 001 363 | 4 401 499 | 5 061 724 | 5 820 983 | 6 694 130 | 7 698 250 | 8 852 987 | 10 180 935 |
| ses | 3 538 894 | 4 069 728 | 4 680 187 | 5 382 215 | 6 189 548 | 7 117 980 | 8 185 677 | 9 413 528 |
| ollections*** | 606 684 | 697 687 | 802 340 | 922 691 | 1 061 094 | 1 220 258 | 1 403 297 | 1 613 792 |
| on | 3 653 664 | 4 019 030 | 4 621 885 | 5 315 168 | 6 112 443 | 7 029 309 | 8 083 706 | 9 296 262 |
| + Depreciation-Principal Debt Coverage | 0 | 0 | 0 | 0 | 0 | 4 493 971 | 5 033 248 | 5 637 238 |
| Deprec. of the 10% VKO Match and VAT | | | | | | 1 438 071 | 1 610 639 | 1 803 916 |
| Total Expenses | 24 593 897 | 27 900 230 | 32 085 265 | 36 898 054 | 42 432 763 | 54 729 719 | 62 761 216 | 71 976 081 |
| Water / Sewerage Sold (tm3) | 15 861 | 15 861 | 14 275 | 11 420 | 11 648 | 11 881 | 12 119 | 12 361 |
| ost per m3 | 1 551 | 1 759 | 2 248 | 3 231 | 3 643 | 4 606 | 5 179 | 5 823 |
| of 9% of Average Cost m3 | 1 783 | 2 023 | 2 585 | 3 716 | 4 189 | 5 297 | 5 956 | 6 696 |
| Combined Tariff with VAT | 2 140 | 2 427 | 3 102 | 4 459 | 5 027 | 6 357 | 7 147 | 8 035 |
| enue | 28 282 982 | 32 085 265 | 36 898 054 | 42 432 763 | 48 797 677 | 62 939 177 | 72 175 398 | 82 772 494 |
| eserve | 1 414 149 | 1 604 263 | 1 844 903 | 2 121 638 | 2 439 884 | 3 146 959 | 3 608 770 | 4 138 625 |
| erest Payment* | | | 1 031 779 | 2 888 982 | 3 235 659 | 3 623 938 | 4 058 811 | 4 545 868 |
| rtability | 2 274 935 | 2 580 771 | 2 967 887 | 3 413 070 | 3 925 031 | 5 062 499 | 5 805 412 | 6 657 788 |
| Profit Taxes*** | 796 227 | 903 270 | 1 038 760 | 1 194 575 | 1 373 761 | 1 771 875 | 2 031 894 | 2 330 226 |
| Plus Capital Improvement Interest Credit | 1 478 708 | 1 677 501 | 1 258 470 | -73 199 | 2 491 | 552 623 | 730 654 | 946 806 |

Associated with billing and collection services are estimated to be 2% of general population billings

on to cover principle debt coverage is assumed to be sufficient to carry out principle payments.

match of the VKO and the VAT associated with the project expenditures are amortized over the life fo the loan.

enue is calculated using the volume sold times the average cost per m3.

write off is assumed to be 5% of the total amount billed

ment tax credit is assumed to be granted. This amounts to one-half the profit tax or 18% of profit.

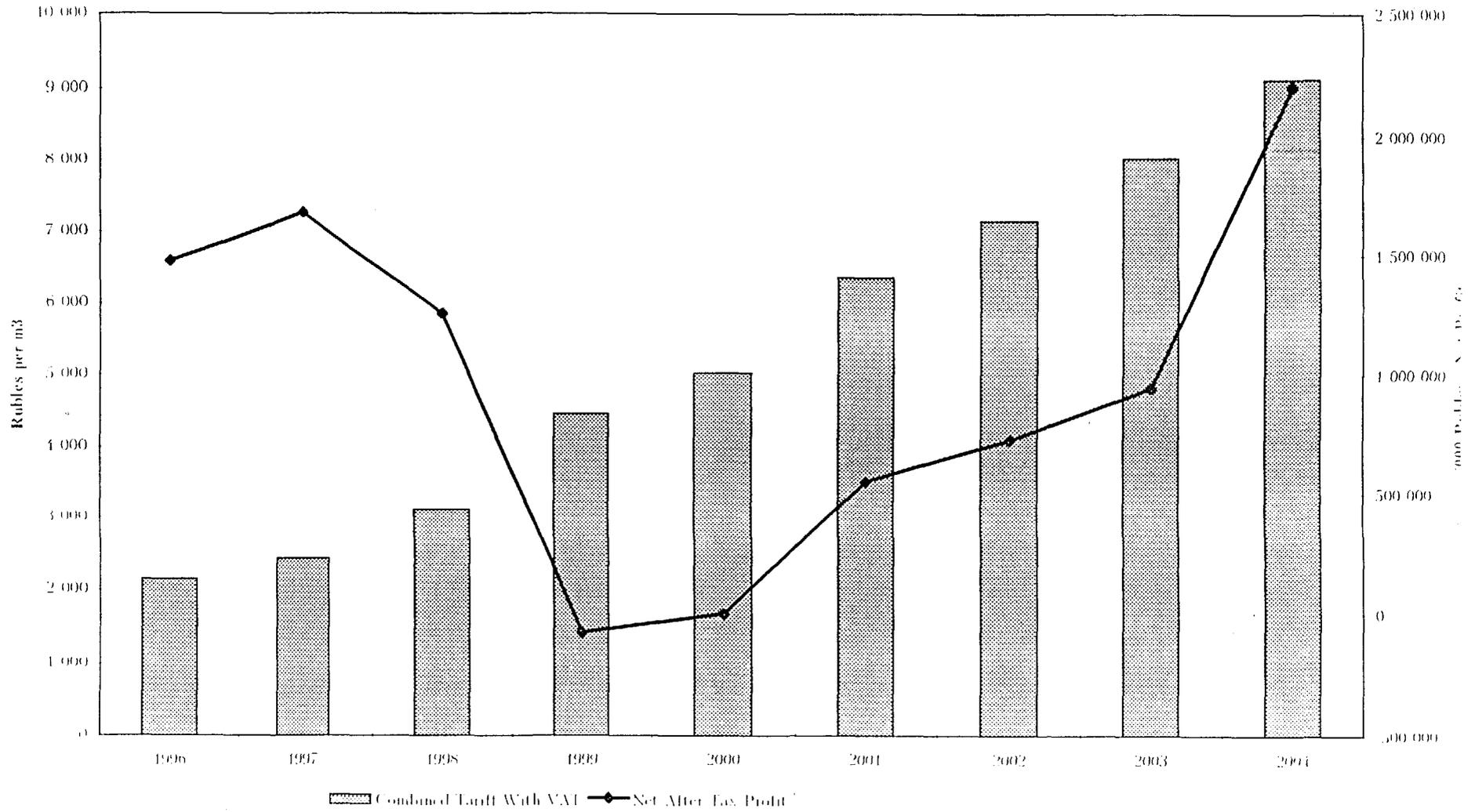
reflect drops in volumes of water and wastewater as a result of efficiencies and metering. 1998-10%

with a gradual increase in the volumes at 2% growth per year thereafter.

2

ECHORA VODOKANAL LOAN OF \$ 5 MILLION

Combined Tariff With Net After Tax Profit For Loan of \$ 5 Million



Prepared By P&D Co. Inc.

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SECTION II

**RESTATED FINANCIAL STATEMENTS
AND ACCOMPANYING TABLES**

Table 1
PECHORA VODOKANAL
TRIAL BALANCE AS OF JANUARY 1, 1995 AND DECEMBER 31, 1995

| Cod | Name of Account | JANUARY 1, 1995 | | DECEMBER 31, 1995 | | SUBSEQUENT JOURNAL ENTRIES JB#01/95 | | ADJUSTED TRIAL BALANCE DEC 31/95 | |
|--------------|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------------|-------------------------|----------------------------------|--------------------------|
| | | Debits in 000 rubles | Credits in 000 ruble | Debits in 000 rubles | Credits in 000 ruble | Debits in 000 rubles | Credits in 000 ruble | Debits in 000 rubles | Credits in 000 rubles |
| 01 | Fixed assets | 16,435,991 | | 2,400,745 | | 65,472,316 | | 67873061 | 0 |
| 02 | Accumulated depreciation | | 6,498,903 | | 868,584 | | 26,262,758 | 0 | 27131342 |
| 04 | Intangible assets | 8,500 | | 10,785 | | | | 10785 | 0 |
| 06 | Long-term investments | 2,315 | | 2,315 | | | | 2315 | 0 |
| 10 | Stores - materials | 81,875 | | 209,216 | | | | 209216 | 0 |
| 12 | Stores - consumables | 12,812 | | 33,825 | | | | 33825 | 0 |
| 13 | Accumulated depreciation of low value assets | | 5,914 | | 14,280 | | | 0 | 14280 |
| 19 | VAT | 16,754 | | 271,499 | | | | 271499 | 0 |
| 48 | Realization - others | 1,254 | | | 39 | | | 0 | 39 |
| 50 | Cash in hand | 19 | | 280 | | | | 280 | 0 |
| 51 | Cash at bank | 5,117 | | 28,688 | | | | 28688 | 0 |
| 53 | Cash - foreign currency | | | 10,227 | | | | 10227 | 0 |
| 55 | Letters of credit | 10,998 | | | | | | 0 | 0 |
| 60 | Settlements w/contractors | | 520,284 | | 1,004,966 | | | 0 | 1004966 |
| 62 | Settlements w/customers | 1,637,077 | | 4,651,883 | | 1,664,310 | | 6316193 | 0 |
| 65 | Property insurance | | 1,647 | | 3,624 | | | 0 | 3624 |
| 67 | Non budget tax | | 8,252 | | 0 | | | 0 | 0 |
| 68 | Income tax - budget | | 189,044 | | 126,239 | | | 0 | 126239 |
| 68-3 | VAT on accrued income | | | | | | 1,558,048 | 0 | 1558048 |
| 69 | Settlements/social insurance | | 47,942 | | 500,775 | | | 0 | 500775 |
| 70 | Settlements/labor | | 100,987 | | 840,905 | | | 0 | 840905 |
| 71 | Settlements/salaries | 910 | | 39 | | | | 39 | 0 |
| 73 | Settlements/personnel | 749 | 6,428 | 28,313 | 85,963 | | | 28313 | 85963 |
| 76 | Settlements/debtors and creditors | 11,843 | 782 | 24,372 | 3,270 | | | 24372 | 3270 |
| 79 | Parent Company balance | | | | 375,795 | | | 0 | 375795 |
| 80 | Profit and Loss | | | | 312,422 | | 106,262 | 0 | 418684 |
| 85 | Authorized capital | | 19,413 | | 19,413 | | | 0 | 19413 |
| 87 | Revaluation surplus | | 10,435,524 | | 2,961,951 | | 39,209,558 | 0 | 42171509 |
| 88 | Development fund | | 308,094 | | 241,717 | | | 0 | 241717 |
| 90 | Loans | | 83,000 | | 326,590 | | | 0 | 326590 |
| 96 | Target financing | | | 14,346 | | | | 14346 | 0 |
| Total | | 18,226,214 | 18,226,214 | 7,686,533 | 7,686,533 | 67,136,626 | 67,136,626 | 74,823,159 | 74,823,159 |

Source: Pechora Vodokanal trial balance as of January 1 and December 31, 1995.

Note:(1) Details of subsequent journal entries shown separately

Table 2
PECHORA VODOKANAL
TRIAL BALANCE AS OF JANUARY 1, 1996 AND DECEMBER 31, 1996

| Cod | Name of Account | JANUARY 1, 1996 | | DECEMBER 31, 1996 | | SUBSEQUENT JOURNAL ENTRIES JB#01&02/96 | | ADJUSTED TRIAL BALANCE DEC 31/96 | |
|--------------|--|-------------------------|--------------------------|-------------------------|--------------------------|---|--------------------------|-------------------------------------|--------------------------|
| | | Debits in 000 rubles | Credits in 000 rubles | Debits in 000 rubles | Credits in 000 rubles | Debits in 000 rubles | Credits in 000 rubles | Debits in 000 rubles | Credits in 000 rubles |
| 01 | Fixed assets | 2,400,745 | | 5,998,217 | | 65,748,248 | | 71746465 | 0 |
| 02 | Accumulated depreciation | | 868,584 | | 2,499,740 | | 26,411,948 | 0 | 28911688 |
| 04 | Intangible assets | 10,785 | | 10,073 | | | | 10073 | 0 |
| 06 | Long-term investments | 2,315 | | | | | | 0 | 0 |
| 10 | Stores - materials | 209,216 | | 372,311 | | | | 372311 | 0 |
| 12 | Stores - consumables | 33,825 | | 151,895 | | | | 151895 | 0 |
| 13 | Accumulated depreciation of low value assets | | 14,280 | | 57,119 | | | 0 | 57119 |
| 19 | VAT | 271,499 | | 199,380 | | | | 199380 | 0 |
| 45 | Shipped Goods | | | 1,127 | | | | 1127 | 0 |
| 48 | Realization - others | | 39 | | 389 | | | 0 | 389 |
| 50 | Cash in hand | 280 | | 108 | | | | 108 | 0 |
| 51 | Cash at bank | 28,688 | | | | | | 0 | 0 |
| 53 | Cash - foreign currency | 10,227 | | | | | | 0 | 0 |
| 55 | Letters of credit | | | | | | | 0 | 0 |
| 60 | Settlements w/contractors | | 1,004,966 | | 1,182,525 | | | 0 | 1182525 |
| 62 | Settlements w/customers | 4,651,883 | | 7,880,602 | | | | 7880602 | 0 |
| 65 | Property insurance | | 3,624 | | 8,693 | | | 0 | 8893 |
| 67 | Non budget tax | | 0 | | | | | 0 | 0 |
| 68 | Income tax - budget | | 126,239 | | 114,446 | | | 0 | 114446 |
| 69 | Settlements/social insurance | | 500,775 | | 3,668,340 | | | 0 | 3668340 |
| 70 | Settlements/labor | | 840,905 | | 922,149 | | | 0 | 822149 |
| 71 | Settlements/salaries | 39 | | | 19,515 | | | 0 | 19515 |
| 73 | Settlements/personnel | 28,313 | 85,963 | 13,008 | 93,612 | | | 13008 | 93612 |
| 76 | Settlements/debtors and creditors | 24,372 | 3,270 | 20,668 | 1,365,848 | | | 20668 | 1365848 |
| 79 | Parent Company balance | | 375,795 | 671,069 | | 5,740,303 | | 6411372 | 0 |
| 80 | Profit and Loss | | 312,422 | | | | 5,740,303 | 0 | 5740303 |
| 85 | Authorized capital | | 19,413 | | | | | 0 | 0 |
| 87 | Revaluation surplus | | 2,961,951 | | 5,210,469 | | 39,336,300 | 0 | 44546769 |
| 88 | Development fund | | 241,717 | | 175,413 | | | 0 | 175413 |
| 90 | Loans | | 326,590 | | | | | 0 | 0 |
| 96 | Target financing | 14,346 | | | | | | 0 | 0 |
| Total | | 7,686,633 | 7,686,633 | 15,318,458 | 15,318,458 | 71,488,551 | 71,488,551 | 86,807,009 | 86,807,009 |

Source: Pechora Vodokanal trial balance as of January 1 and December 31, 1996.

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Table 3

PECHORA VODOKANAL

CONNECTION OF THE TRIAL BALANCE AND BALANCE SHEET

| Code | | Dec 31/95 | | Dec 31/94 |
|------|--|---------------|-------------------|-------------------|
| | | in 000 rubles | in 000 rubles | in 000 rubles |
| 01 | Fixed assets | 67,873,061 | | 16,435,991 |
| 02 | Accumulated depreciation | (27,131,342) | | (6,498,903) |
| | | | 40,741,719 | |
| 04 | Intangible assets | | 10,785 | 8,500 |
| 06 | Long-term investments | | 2,315 | 2,315 |
| | CURRENT ASSETS | | | |
| 10 | Stores - materials | 209,216 | | 81,875 |
| 12 | Stores - consumables | 33,825 | | 12,812 |
| 13 | Accumulated depreciation of low value asse | (14,280) | | (5,914) |
| | Total inventories | 228,761 | | 88,773 |
| 19 | VAT | 271,499 | | 16,754 |
| 62 | Settlements/customers | 6,316,193 | | 1,637,077 |
| 48 | Realization- others | | | 1,254 |
| 71 | Settlements/salaries | 39 | | 910 |
| 73 | Settlements/personnel | 28,313 | | 749 |
| 76 | Settlements/debtors and creditors | 24,372 | | 11,843 |
| 96 | Target financing | 14,346 | | |
| | Total other receivables | 67,067 | | 13,502 |
| 50 | Cash in hand | 280 | | 19 |
| 51 | Cash at bank | 28,688 | | 5,117 |
| 53 | Cash - foreign currency | 10,227 | | |
| 55 | Letters of credit | | | 10,998 |
| | Total bank and cash balances | 39,195 | | 16,134 |
| | | 6,922,718 | | 11,721,397 |
| | DEDUCT: CURRENT LIABILITIES | | | |
| 60 | Settlements/contractors | 1,004,966 | | 520,284 |
| 90 | Loans | 326,590 | | 83,000 |
| 70 | Settlements/labor | 840,905 | | 100,987 |
| 65 | Property insurance | 3,624 | | 1,647 |
| 67 | Non budget tax | 0 | | 8,252 |
| 68 | Income tax - budget | 126,239 | | 189,044 |
| 68-3 | VAT payable on accrued income | 1,558,048 | | |
| 69 | Settlements/social insurance | 500,775 | | 47,942 |
| | Total social taxes payable | 2,188,686 | | 246,885 |
| 48 | Realization - others | 39 | | |
| 73 | Settlements/personnel | 85,963 | | 6,428 |
| 76 | Settlements/debtors and creditors | 3,270 | | 782 |
| | Total other payables | 89,272 | | 7,210 |
| 79 | Suspense account | 375,795 | | |
| 88 | Development fund | 193,338 | | 120,431 |
| | | 5,019,552 | | 1,078,797 |
| | | | 1,903,166 | |
| | | | 42,657,985 | 10,642,600 |
| | FINANCED BY: | | | |
| 80 | Profit and Loss | | 418,684 | |
| 85 | Authorized capital | | 19,413 | 19,413 |
| 87 | Revaluation surplus | | 42,171,509 | 10,435,524 |
| 88 | Development fund | | 48,379 | 187,663 |
| | Total | | 42,657,985 | 10,642,600 |

Source: Pechora Vodokanal trial balance as at January 1 and December 31, 1995.

Table 4
PECHORA VODOKANAL
CONNECTION OF THE TRIAL BALANCE AND BALANCE SHEET

| Code | | Dec 31/96 | | Dec 31/95 |
|------|---------------------------------------|-------------------|-------------------|-------------------|
| | | Rb 000 | Rb 000 | Rb 000 |
| 01 | Fixed assets | 71,746,465 | | 67,873,061 |
| 02 | Accumulated depreciation | (28,911,688) | | (27,131,342) |
| | | | 42,834,777 | |
| 04 | Intangible assets | | 10,073 | 10,785 |
| 06 | Long-term investments | | | 2,315 |
| | CURRENT ASSETS | | | |
| 10 | Stores - materials | 372,311 | | 209,216 |
| 12 | Stores - consumables | 151,895 | | 33,825 |
| 13 | Accumulated depretiation of low value | (57,119) | | (14,280) |
| | Total inventories | 467,087 | | 228,761 |
| 19 | VAT | 199,380 | | 271,499 |
| 45 | Shipped Goods | 1,127 | | |
| 62 | Settlements/customers | 7,880,602 | | 6,316,193 |
| | Total accounts receivable | 7,881,729 | | |
| 48 | Realization- others | | | |
| 71 | Settlements/salaries | | | 39 |
| 73 | Settlements/personnel | 13,008 | | 28,313 |
| 76 | Settlements/debtors and creditors | 20,668 | | 24,372 |
| 96 | Target financing | | | 14,346 |
| | Total other receivables | 33,676 | | 67,070 |
| 79 | Main Company receivables | 7,601,894 | | |
| 50 | Cash in hand | 108 | | 280 |
| 51 | Cash at bank | | | 28,688 |
| 53 | Cash - foreign currency | | | 10,227 |
| 55 | Letters of credit | | | |
| | Total bank and cash balances | 108 | | 39,195 |
| | | 16,183,874 | | 47,677,537 |
| | DEDUCT: CURRENT LIABILITIES | | | |
| 60 | Settlements/contractors | 1,182,525 | | 1,004,966 |
| 90 | Loans | | | 326,590 |
| 70 | Settlements/labor | 922,149 | | 840,905 |
| 65 | Property insurance | 8,893 | | 3,624 |
| 67 | Non budget tax | | | 0 |
| 68 | Income tax - budget | 114,446 | | 126,239 |
| 68-3 | VAT payable on accrued income | | | 1,558,048 |
| 69 | Settlements/social insurance | 3,668,340 | | 500,775 |
| | Total social taxes payable | 3,791,679 | | 2,188,686 |
| 48 | Realization - others | 389 | | 39 |
| 71 | Settlement/salaries | 19,515 | | |
| 73 | Settlements/personnel | 93,612 | | 85,963 |
| 76 | Settlements/debtors and creditors | 1,365,848 | | 3,270 |
| | Total other payables | 1,479,364 | | 89,272 |
| 79 | Intercompany payables | | | 375,795 |
| 88 | Development fund | | | 193,338 |
| | | 7,375,717 | | 5,019,552 |
| | | | 8,808,157 | |
| | | | 51,653,007 | 42,657,985 |
| | FINANCED BY: | | | |
| 80 | Profit & Loss | | 6,930,825 | 418,684 |
| 85 | Authorized capital | | | 19,413 |
| 87 | Revaluation surplus | | 44,546,769 | 42,171,509 |
| 88 | Development fund | | 175,413 | 48,379 |
| | Total | | 51,653,007 | 42,657,985 |

Source: Pechora Vodokanal trial balance as at January 1 and December 31, 1996

Table 5
PECHORA VODOKANAL
BALANCE SHEET AS AT DECEMBER 31, 1995

| Code | | Note | Dec 31/95 | | Dec 31/94 |
|--------------|------------------------------------|------|---------------|-------------------|-------------------|
| | | | in 000 rubles | in 000 rubles | in 000 rubles |
| 01 | Fixed assets | 1 | 67,873,061 | | 16,435,991 |
| 02 | Less Provision for depreciation | 2 | (27,131,342) | | (6,498,903) |
| | | | | 40,741,719 | |
| 04 | Intangible assets | | | 10,785 | 8,500 |
| 06 | Long-term investment | | | 2,315 | 2,315 |
| | CURRENT ASSETS | | | | |
| 10/12/-13 | Inventories | 3 | 228,761 | | 88,773 |
| 19 | VAT on materials | 4 | 271,499 | | 16,754 |
| 62 | Accounts receivable | 5 | 6,316,193 | | 1,637,077 |
| 48/71/73/76/ | Other receivables | | 67,070 | | 14,756 |
| 50/51/53/55 | Bank and cash balances | 7 | 39,195 | | 16,134 |
| | | | 6,922,718 | | 1,773,494 |
| | DEDUCT: CURRENT LIABILITIES | | | | |
| 60 | Accounts payable | | 1,004,966 | | 520,284 |
| 90 | Short term loans | | 326,590 | | 83,000 |
| 70 | Salaries payable | 8 | 840,905 | | 100,987 |
| 69/65/67/68 | Social taxes payable | 9 | 630,638 | | 246,885 |
| 68-3 | VAT payable on accrued income | | 1,558,048 | | |
| 79 | Intercompany payables | | 375,795 | | |
| 48/73/76 | Other payables | | 89,272 | | 7,210 |
| 88 | Revenue of future periods | | 193,338 | | 120,431 |
| | | | 5,019,552 | | 1,078,797 |
| | WORKING CAPITAL | 10 | | 1,903,166 | 694,697 |
| | TOTAL NET ASSETS | | | 42,657,985 | 10,642,600 |
| | FINANCED BY: | | | | |
| 85 | Contributed capital | 11 | | 19,413 | 19,413 |
| 87 | Reserve funds | 12 | | 42,171,509 | 10,435,524 |
| 88 | Capital reserves | | | 48,379 | 187,663 |
| 80 | Profit & Loss balance | 13 | | 418,684 | |
| | | | | 42,657,985 | 10,642,600 |

Source : Figures from Pechora trial balance. Figures of Pechora financial statement have been connected through the account codes.

Table 6
PECHORA VODOKANAL
BALANCE SHEET AS OF DECEMBER 31, 1996

| Code | | Note | in 000 rubles | Dec 31/96 | Dec 31/95 |
|-----------|------------------------------------|------|---------------|-------------------|-------------------|
| | | | | in 000 rubles | in 000 rubles |
| 01 | Fixed assets | 1 | 71,746,465 | | 67,873,061 |
| 02 | Less Provision for depreciation | 2 | (28,911,688) | | (27,131,342) |
| | | | | 42,834,777 | |
| 04 | Intangible assets | | | 10,073 | 10,785 |
| 06 | Long term investment | | | | 2,315 |
| | CURRENT ASSETS | | | | |
| 10/12/-13 | Inventories | 3 | 467,087 | | 228,761 |
| 19 | VAT on materials | 4 | 199,380 | | 271,499 |
| 45/62 | Accounts receivable | 5 | 7,881,729 | | 6,316,193 |
| 48/73/76/ | Other receivables | | 33,676 | | 67,070 |
| 79 | Intercompany receivables | 6 | 6,411,372 | | |
| 50/51/53/ | Bank and cash balances | 7 | 108 | | 39,195 |
| | | | 14,993,352 | | 6,922,718 |
| | DEDUCT: CURRENT LIABILITIES | | | | |
| 60 | Accounts payable | | 1,182,525 | | 1,004,966 |
| 90 | Short term loans | | | | 326,590 |
| 70 | Salaries payable | 8 | 922,149 | | 840,905 |
| 69/65/67/ | Social taxes payable | 9 | 3,791,679 | | 630,638 |
| 68-3 | VAT payable on accrued income | | | | 1,558,048 |
| 79 | Intercompany payables | | | | 375,795 |
| 48/71/73/ | Other payables | | 1,479,364 | | 89,272 |
| 83 | Revenue of future periods | | | | 193,338 |
| | | | 7,375,717 | | 5,019,552 |
| | WORKING CAPITAL | 10 | | 7,617,635 | 1,903,166 |
| | TOTAL NET ASSETS | | | 50,462,485 | 42,657,985 |
| | FINANCED BY: | | | | |
| 85 | Contributed capital | 11 | | | 19,413 |
| 87 | Reserve funds | 12 | | 44,546,769 | 42,171,509 |
| 88 | Capital reserves | | | 175,413 | 48,379 |
| 80 | Profit & Loss balance | 13 | | 5,740,303 | 418,684 |
| | | | | 50,462,485 | 42,657,985 |

Source Figures from Pechora trial balance. Figures of Pechora financial statement have been connected through the account codes.

Appendix III

| Table 7 | | |
|---|---------------|---------------|
| PECHORA VODOKANAL | | |
| EXPLANATORY NOTES TO BALANCE SHEET | | |
| NOTE 1 | 1995 | 1996 |
| Fixed Assets | in 000 rubles | in 000 rubles |
| ----- | ----- | ----- |
| Ledger balance at January 1, 1995/96 | 16,435,991 | 2,400,745 |
| Purchases during year | 2,247,392 | 43,217 |
| Revaluation in 1995 (coefficient used 3.99 times) | 49,189,678 | |
| Revaluation in 1996 | | 3,830,187 |
| Transferred to Customer Services Company | (65,472,316) | |
| Transferred to Parent Company | | (275,932) |
| ----- | ----- | ----- |
| Ledger balance at December 31, 1995/96 | 2,400,745 | 5,998,217 |
| Restated by journal entry #02/95 | 65,472,316 | |
| Restated by journal entry #02/96 | | 65,748,248 |
| ----- | ----- | ----- |
| Amount as per Balance Sheet | 67,873,061 | 71,746,465 |
| ----- | ----- | ----- |
| NOTE 2 | | |
| Provision for Depreciation | | |
| ----- | ----- | ----- |
| Ledger balance at January 1, 1995/96 | 6,498,903 | 868,584 |
| Depreciation on 1995 revaluation | 19,289,499 | 1,566,682 |
| Depreciation for the year | 1,342,940 | 213,664 |
| Transferred to Customer Services Company | (26,262,758) | |
| Transferred to Parent Company | | (149,190) |
| ----- | ----- | ----- |
| Ledger balance at December 31, 1995/96 | 868,584 | 2,499,740 |
| Restated by journal entry #02/95 & 01/96 | 26,262,758 | 26,411,948 |
| ----- | ----- | ----- |
| Amount as per Balance Sheet | 27,131,342 | 28,911,688 |
| ----- | ----- | ----- |

| Table 8 | | |
|---|------------|------------|
| PECHORA VODOKANAL | | |
| JOURNAL ENTRIES PASSED TO RESTATE ANNUAL ACCOUNTS - 1995 | | |
| | Rb 000 | Rb 000 |
| | ----- | ----- |
| JV#01/95 | | |
| Settlement - customers (62) | 1,664,310 | |
| Settlement - VAT payable on accrued income | | 1,558,048 |
| Profit & Loss a/c (80) | | 106,262 |
| | ----- | ----- |
| | 1,664,310 | 1,664,310 |
| | ----- | ----- |
| Being adjustment for accounting for sale of water & sewerage on an accrual basis. | | |
| ----- | | |
| JV#02/95 | | |
| Fixed assets (01) | 65,472,316 | |
| Provision for depreciation (02) | | 26,262,758 |
| Revaluation surplus (87) | | 39,209,558 |
| | ----- | ----- |
| | 65,472,316 | 65,472,316 |
| | ----- | ----- |
| Being restatement of fixed assets transferred to main company. | | |

Table 9

PECHORA VODOKANAL

JOURNAL ENTRIES PASSED TO RESTATE ANNUAL ACCOUNTS - 1996

JV#01/96

| | | |
|---------------------------------|------------|--------|
| Fixed assets (01) | 65,748,248 | |
| Provision for depreciation (02) | | 26.411 |
| Revaluation surplus (87) | | 39.336 |
| | ----- | ----- |
| | 65,748,248 | 65.748 |
| | ----- | ----- |

Being restatement of Vodokanal fixed assets transferred to the main company

JV#02/96

| | | |
|-------------------------------|-----------|-------|
| Intercompany receivables (79) | 5,740,303 | |
| Profit & Loss a/c (80) | | 5.740 |

Being restatement of profit for 1996, transferred by Vodokanal to the main company

PECHORA VODOKANAL
PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1995

| Code | | in 000 rubles | in 000 rubles |
|----------|---------------------------------------|---------------|---------------|
| | Revenue from water (net of VAT) | | 7,599,830 |
| | Revenue from sewerage (net of VAT) | | 5,873,176 |
| | | | ----- |
| | | | 13,473,036 |
| | Other income | | 14,747 |
| | DEDUCT: EXPENSES | | |
| 60 | Electricity | 3,002,431 | |
| 60 | Supplies | 1,754,195 | |
| 70 | Labor | 2,362,395 | |
| 67/68/69 | Social taxes | 1,202,341 | |
| 10 | Materials | 180,776 | |
| 26 | Administration expenses | 729,431 | |
| 23 | Auxilliary departments | 1,440,327 | |
| 74 | Rent of assets | 283,426 | |
| | | ----- | 10,955,322 |
| | NET PROFIT BEFORE DEPRECIATION | | 2,532,461 |
| 02 | Depreciation | | (1,342,940) |
| | NET PROFIT AFTER DEPRECIATION | | 1,189,521 |
| 81 | Fines & profit tax | | (770,836) |
| | NET PROFIT FOR THE YEAR | | 418,685 |

Source: Expense Vodokanal figures from Pechora general ledger.
Revenue figures from the Pechora Vodokanal Billing section.

Note: (1). Revenue shown in the Pechora Vodokanal ledger is the collection during the year. Revenue has been restated to account for accrued income. See notes to Profit & Loss account for details.

(2). Provision has not been made for doubtful receivables in the above account.

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Table 11
PECHORA VODOKANAL
PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1996

| Code | | in 000 rubles | in 000 rubles |
|----------|--|---------------|------------------|
| | Revenue from water (net of VAT) | | 19,262,820 |
| | Revenue from sewerage (net of VAT) | | 11,066,602 |
| | | | ----- |
| | Other income | | 30,329,422 |
| | | | 4,778 |
| | DEDUCT: EXPENSES | | |
| 60 | Electricity | 3,991,259 | |
| 60 | Supplies | 1,771,393 | |
| 70 | Labor | 3,303,602 | |
| 67/68/69 | Social taxes | 2,295,546 | |
| 10 | Materials | 261,321 | |
| 29 | Maintaining production units | 905,251 | |
| 26 | Administration expenses | 836,381 | |
| 23 | Auxilliary departments | 1,395,353 | |
| 79 | Expenses met by parent compan | 115,038 | |
| | Other expenses | 216,377 | |
| | | | ----- |
| | | | 15,091,521 |
| | NET PROFIT BEFORE DEPRECIATION | | 15,242,679 |
| 02 | Depreciation | | (3,653,664) |
| | NET PROFIT AFTER DEPRECIATION | | 11,589,015 |
| 81 | Fines for late payment of taxes | | (1,847,349) |
| 81 | Interest on loan & other taxes | | (260,292) |
| | Profit tax for the year | | (3,741,071) |
| | NET PROFIT FOR THE YEAR | | 5,740,303 |
| Source: | Revenue and expenditure figures from Pechora Vodokanal general ledger. | | |
| Note | (1). Revenue and expenditure in 1996 was accounted on an accrual basis by the Vodokanal. The accounting policy was changed from a cash basis to accrual basis in 1996. | | |

Table 12
PECHORA VODOKANAL
SOURCES AND USES OF FUNDS

| | 1995 | 1996 |
|---|------------------|-------------------|
| | in 000 rubles | in 000 rubles |
| SOURCES OF FUNDS | | |
| Net profit for the year after depreciation & t | 418,685 | 5,740,303 |
| Add: Depreciation for the year | 1,342,940 | 3,653,864 |
| Increase in accounts payable | 484,682 | 177,559 |
| Increase in loans | 243,590 | |
| Increase in salaries payable | 739,918 | 81,244 |
| Increase in social taxes payable | 383,753 | 3,161,041 |
| Increase in VAT payable | 1,558,048 | |
| Increase in parent company payables | 375,795 | |
| Increase in other payables | 82,062 | 1,390,092 |
| Increase in revenues for future periods | 72,907 | |
| Decrease in long term investment | | 2,315 |
| Decrease in VAT on materials | | 72,119 |
| Decrease in other receivables | | 33,394 |
| Decrease in cash & bank balances | | 39,087 |
| Fixed assets purchased | 1,696,521 | |
| Total | 7,398,901 | 14,351,018 |
| USES OF FUNDS | | |
| Increase in intangible assets | 2,285 | |
| Increase in inventories | 139,988 | 238,326 |
| Increase in VAT on materials | 254,745 | |
| Increase in accounts receivable | 4,679,116 | 1,565,536 |
| Increase in other receivable | 52,314 | |
| Increase in cash & bank balances | 23,061 | |
| Increase in parent company receivables plus depreciation charged by parent company | | 10,425,963 |
| Purchase of fixed assets | 2,247,392 | 43,217 |
| Decrease in other payables | | |
| Decrease in loans | | 326,590 |
| Decrease in VAT on income | | 1,558,048 |
| Decrease in revenue of future periods | | 193,338 |
| Total | 7,398,901 | 14,351,018 |

Table 13
PECHORA VODOKANAL
COLLECTION ANALYSIS FOR 1995

| | 1995 | Population | udgetary organisation | Industries | Others |
|---|---------------|---------------|-----------------------|---------------|---------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| + Billed for water supply and sewerage (with VAT) | 16,443,855 | 4,697,281 | 6,493,557 | 2,005,924 | 3,247,093 |
| - Collected | 12,631,566 | 3,540,325 | 3,925,978 | 1,919,916 | 3,245,347 |
| including | | | | | |
| <i>cash on accounts and in cash</i> | | | | | |
| <i>desk</i> | 3,693,961 | 887,124 | 337,522 | 778,417 | 1,690,898 |
| <i>via off-sets</i> | 5,686,748 | 1,184,299 | 3,091,136 | 216,987 | 1,194,326 |
| <i>via barter</i> | 2,899,857 | 1,268,902 | 497,320 | 792,654 | 340,981 |
| <i>promissory notes</i> | | | | | |
| <i>Other ways</i> | 351,000 | 200,000 | | 131,858 | 19,142 |
| = Increase in accounts receivable | 3,812,289 | 1,156,956 | 2,567,579 | 86,008 | 1,746 |

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Table 14
 PECHORA VODOKANAL
 COLLECTION ANALYSIS FOR 1996

| | 1996 | Population | budgetary organisation | Industries | Others |
|---|---------------|---------------|------------------------|---------------|---------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| + Billed for water supply and sewerage including VAT | 36,391,988 | 13,261,182 | 17,073,514 | 3,601,896 | 2,455,396 |
| - Collected | 34,860,974 | 11,734,222 | 16,974,135 | 3,733,839 | 2,418,778 |
| including | | | | | |
| <i>cash on accounts and in cash desk</i> | 971,946 | 509,920 | 94,442 | 65,000 | 302,584 |
| <i>via off-sets</i> | 28,680,238 | 9,654,379 | 16,824,464 | 992,288 | 1,209,107 |
| <i>via barter</i> | 4,208,790 | 569,923 | 55,229 | 2,676,551 | 907,087 |
| <i>promissory notes</i> | 0 | | | | |
| <i>Other ways</i> | 1,000,000 | 1,000,000 | | | |
| = Increase in accounts | 1,531,014 | 1,526,960 | 99,379 | -131,943 | 36,618 |

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Table15
PECHORA VODOKANAL
ACCOUNTS RECEIVABLE FOR1995

| | 1995 | Population | udgetary organisation | Industries | Others |
|---|---------------|---------------|-----------------------|---------------|---------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| + Accounts receivable at the beginning of the period (with VAT) | 2,570,975 | 329,171 | 1,842,814 | 297,549 | 101,441 |
| + Water and waste water | 16,443,855 | 4,697,281 | 6,493,557 | 2,005,924 | 3,247,093 |
| - Received on a bank accounts or at a cash desk | 3,693,961 | 887,124 | 337,522 | 778,417 | 1,690,898 |
| - Received via off-sets | 5,686,748 | 1,184,299 | 3,091,136 | 216,987 | 1,194,326 |
| - Received via barter | 2,899,857 | 1,268,902 | 497,320 | 792,654 | 340,981 |
| - Received other way (promissory notes) | 351,000 | 200,000 | | 131,858 | 19,142 |
| = Accounts receivable at the end of the period (62,73,76) | 6,383,264 | 1,486,127 | 4,410,393 | 383,557 | 103,187 |

Note : Water and waste water billed in 1995 includes VAT. The figure in the Profit & Loss account is without VAT

Table 16
PECHORA VODOKANAL
ACCOUNTS RECEIVABLE FOR 1996

| | 1996 | Population | udgetary organisation | Industries | Others |
|---|------------------|------------------|-----------------------|----------------|----------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| + Accounts receivable at the beginning of the period (with VAT) | 6,383,264 | 1,486,127 | 4,410,393 | 383,557 | 103,187 |
| + Water and waste water services billed | 36,391,988 | 13,261,182 | 17,073,514 | 3,601,896 | 2,455,396 |
| - Received on a bank accounts or at a cash desk | 971,946 | 509,920 | 94,442 | 65,000 | 302,584 |
| - Received via off-sets | 28,680,238 | 9,654,379 | 16,824,464 | 992,288 | 1,209,107 |
| - Received via barter | 4,208,790 | 569,923 | 55,229 | 2,676,551 | 907,087 |
| - Received other way (promissory notes) | 1,000,000 | 1,000,000 | | | |
| = Accounts receivable at the end of the period (62,73,76) | 7,914,278 | 3,013,087 | 4,509,772 | 251,614 | 139,805 |

Note : Water and wastewater billed in 1996 include VAT. The figure in Profit & Loss account is without VAT.

Table 17

PECHORA VODOKANAL

ANALYSIS OF TAXES AND OTHER MANDATORY PAYMENTS FOR 1995

| | 1995 | Cash | Off-sets | Others | Non-paid |
|---|------------------|----------------|------------------|----------------|----------------|
| | in '000 rubles | in '000 Rubles | in '000 Rubles | in '000 Rubles | in '000 Rubles |
| Profit tax (Jan-Aug95) | 204,060 | 47,903 | 156,157 | | |
| <i>including</i> | | | | | |
| <i>federal budget (73%)</i> | 75,793 | 17,792 | 58,001 | | |
| <i>republican budget (22%)</i> | 128,267 | 30,111 | 98,156 | | |
| VAT (68) | 2,073,764 | 257,892 | 1,815,872 | | |
| <i>federal budget (75%)</i> | 1,555,323 | 193,419 | 1,361,904 | | |
| <i>republican budget (if applicable) (25%)</i> | 518,441 | 64,473 | 453,968 | | |
| Other taxes except those related to the labour costs (67,68) | 1,494,580 | 379,895 | 1,095,685 | 19,000 | |
| <i>including</i> | | | | | |
| <i>federal budget</i> | 112,333 | | 112,333 | | |
| <i>republican budget</i> | 906,956 | | 887,956 | 19,000 | |
| <i>local budget</i> | 475,291 | 379,895 | 95,396 | | |
| Taxes related to the labour costs (68) | 363,515 | 112,626 | 219,889 | 31,000 | |
| <i>including (Income tax 12%, Pension fund 1%)</i> | | | | | |
| <i>federal budget</i> | 38,187 | 34,363 | | | 3,818 |
| <i>republican budget</i> | 31,933 | 31,933 | | | |
| <i>local budget</i> | 343,631 | 46,330 | 219,889 | 31,000 | 46,412 |
| Mandatory payments to the non-budgetary funds except those related to the labour costs (69) | 351,741 | 169,645 | 93,903 | | 88,193 |
| Mandatory payments to the non-budgetary funds related to the labour costs (Pension fund 28%) | 894,126 | 532,986 | | | 361,140 |

Table 18

PECHORA VODOKANAL

ANALYSIS OF TAXES AND OTHER MANDATORY PAYMENTS FOR 1996

| | 1996 | Cash | Off-sets | Others | Non-paid |
|---|---------------|---------------|---------------|--------------|---------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 ruble | in 000 rubles |
| Profit tax | 0 | 0 | 0 | | |
| <i>including</i> | | | | | |
| <i>federal budget (13%)</i> | 0 | | | | |
| <i>republican budget (22%)</i> | 0 | | | | |
| VAT (68) | 5,807,768 | 0 | 5,807,768 | | |
| <i>federal budget (75%)</i> | 4,355,826 | | 4,355,826 | | |
| <i>republican budget (if applicable) (25%)</i> | 1,451,942 | | 1,451,942 | | |
| Other taxes except those related to the labour costs (67,68) | 2,920,631 | 0 | 2,901,631 | 19,000 | |
| <i>including</i> | | | | | |
| <i>federal budget</i> | 1,206,752 | | 1,206,752 | | |
| <i>republican budget</i> | 1,162,867 | | 1,143,867 | 19,000 | |
| <i>local budget</i> | 551,012 | | 551,012 | | |
| Taxes related to the labour costs (68) | 540,646 | 0 | 382,134 | 0 | 158,512 |
| <i>including (Income tax 12%, Pension fund 1%)</i> | | | | | |
| <i>federal budget</i> | 49,658 | | | | 49,658 |
| <i>republican budget</i> | 44,067 | | | | 44,067 |
| <i>local budget</i> | 446,921 | | 382,134 | | 64,787 |
| Mandatory payments to the non-budgetary funds except those related to the labour costs (69) | 462,004 | 30,760 | 221,619 | | 209,625 |
| Mandatory payments to the non-budgetary funds related to the labour costs (Pension fund 28%) | 1,234,518 | 90,716 | | | 1,143,802 |

Table 19
PECHORA VODOKANAL
MAJOR EXPENDITURES FOR 1995

| | | 1995 |
|---|--|-------------------|
| | | in 000 rubles |
| + Labor cost of all vodokanal em | | 4,459,211 |
| including | | |
| | Salaries | 2,892,841 |
| | Bonuses | 364,029 |
| | <i>Taxes to the fund of the labour payment and other related</i> | 1,202,341 |
| | <i>Mandatory payments to the non- budgetary funds related to the personnel</i> | |
| | <i>Other costs related to the labour</i> | |
| + Energy | | 3,002,431 |
| + Chemicals and other production materials | | 1,934,971 |
| + Repairs (materials and subcontractors work) | | 10,102 |
| + Interest payments for the loans received | | 27,533 |
| + Taxes except labour related | | 770,836 |
| + Mandatory payments to the non-budgetary funds related to the personnel | | |
| + Other costs Auxillary and general economy costs | | 1,521,074 |
| = Subtotal expenses | | 11,726,158 |
| + Depreciation | | 1,342,940 |
| = Total expenses includin | | 13,069,098 |

Table 20
PECHORA VODOKANAL
MAJOR EXPENDITURES FOR 1996

| | 1996 |
|---|-------------------|
| | in 000 rubles |
| + Labor cost of all vodokanal em including | 6,761,571 |
| <i>Salaries</i> | 3,940,646 |
| <i>Bonuses</i> | 525,379 |
| <i>Taxes to the fund of the labour payment and other related</i> | 2,295,546 |
| <i>Mandatory payments to the non-budgetary funds related to the personnel</i> | |
| <i>Other costs related to the labour</i> | |
| + Energy | 3,991,259 |
| + Chemicals and other production materials | 2,032,714 |
| + Repairs (materials and subcontractors work) | 7,748 |
| + Interest payments for the loans received | 33,595 |
| + Taxes except labour related | 3,741,071 |
| + Mandatory payments to the non budgetary funds related to the personnel | |
| + Other costs Auxillary and general economy costs | 4,372,275 |
| = Subtotal expenses | 20,940,233 |
| + Depreciation | 3,653,664 |
| = Total expenses includin | 24,593,897 |

Table 21
 PECHORA VODOKANAL
 AGING ACCOUNTS RECEIVABLE FOR 1995

| | > 365 days | 181 - 365 days | < 181 days |
|--|---------------|------------------|------------------|
| | in 000 rubles | in 000 rubles | in 000 rubles |
| + Accounts receivable with VAT (62,73,76) | 31,308 | 1,045,824 | 5,306,132 |
| Including | | | |
| <i>population</i> | | 423,707 | 1,062,420 |
| <i>budget organisations</i> | 23,984 | 537,811 | 3,848,598 |
| <i>industries</i> | | 71,139 | 312,418 |
| <i>others</i> | 7,324 | 13,167 | 82,696 |
| - Bad debts (estimate) | 4,399 | 5,192 | 8,825 |
| including | | | |
| <i>population</i> | | | |
| <i>budget organisations</i> | | | |
| <i>industries</i> | | | |
| <i>others</i> | 4,399 | 5,192 | 8,825 |
| = Accounts receivable that with a good probability could become an income | 26,909 | 1,040,632 | 5,297,307 |
| including | | | |
| <i>population</i> | | 423,707 | 1,062,420 |
| <i>budget organisations</i> | 23,984 | 537,811 | 3,848,598 |
| <i>industries</i> | | 71,139 | 312,418 |
| <i>others</i> | 2,925 | 7,975 | 73,871 |

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Table 22
 PECHORA VODOKANAL
 AGING ACCOUNTS RECEIVABLE FOR 1996

| | > 365 days | 181 - 365 days | < 181 days |
|--|------------------|------------------|------------------|
| | in 000 rubles | in 000 rubles | in 000 rubles |
| + Accounts receivable with VAT (62,73,76) | | | |
| Including | | | |
| <i>population</i> | 17,893 | 1,215,476 | 1,779,718 |
| <i>budget organisations</i> | 3,389,775 | 555,798 | 564,199 |
| <i>industries</i> | 103,817 | 48,275 | 99,522 |
| <i>others</i> | 18,416 | 3,779 | 117,610 |
| - Bad debts (estimate) | 18,416 | 3,779 | 0 |
| including | | | |
| <i>population</i> | | | |
| <i>budget organisations</i> | | | |
| <i>industries</i> | | | |
| <i>others</i> | 18,416 | 3,779 | |
| = Accounts receivable that with a good probability could become an income | 3,511,485 | 1,819,549 | 2,561,049 |
| including | | | |
| <i>population</i> | 17,893 | 1,215,476 | 1,779,718 |
| <i>budget organisations</i> | 3,389,775 | 555,798 | 564,199 |
| <i>industries</i> | 103,817 | 48,275 | 99,522 |
| <i>others</i> | 0 | 0 | 117,610 |

Table 23
PECHORA VODOKANAL
CHANGE IN ACCOUNTS PAYABLE FOR 1995

| | 1995 | Cash | Barter | Off-sets | Others |
|---|-------------------|------------------|------------------|------------------|----------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| + Accounts payable at the beginning of the period | 1,866,508 | | | | |
| including | | | | | |
| <i>labor</i> | 100,987 | | | | |
| <i>energy</i> | 480,933 | | | | |
| <i>taxes</i> | 194,296 | | | | |
| <i>repairs and maintenance</i> | 47,942 | | | | |
| <i>(General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments</i> | | | | | |
| <i>other</i> | 1,042,350 | | | | |
| + Expenses of the vodokanal (the sum of the liabilities for the period excluding depreciation) | 15,215,477 | | | | |
| <i>labor</i> | | | | | |
| <i>energy</i> | | | | | |
| <i>taxes</i> | | | | | |
| <i>repairs and maintenance</i> | | | | | |
| <i>(General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments</i> | | | | | |
| <i>(Auxilliary) others</i> | | | | | |
| - Accounts paid (Barters and offsets from table 4) | 12,631,566 | 3,693,961 | 2,899,857 | 5,686,748 | 351,000 |
| including | | | | | |
| Direct bank settlements: | | | | | |
| <i>labor</i> | 2,516,952 | 1,830,140 | 190,672 | 496,140 | |
| <i>energy</i> | 2,341,826 | 338,000 | | 2,003,826 | |
| <i>taxes</i> | 3,333,958 | 911,082 | | 2,071,876 | 351,000 |
| <i>repairs and maintenance</i> | 10,102 | 10,102 | | | |
| <i>(General Economy) G&A</i> | 54,141 | | | 54,141 | |
| <i>emergency work</i> | 0 | | | | |
| <i>other mandatory payments</i> | 1,481,064 | 604,637 | | 876,427 | |
| <i>(Auxilliary) others</i> | 2,893,523 | | 2,709,185 | 184,338 | |
| = Accounts payable at the end of the period | 4,450,419 | | | | |
| including | | | | | |
| <i>labor</i> | 840,905 | | | | |
| <i>energy</i> | 998,606 | | | | |
| <i>taxes</i> | 126,239 | | | | |
| <i>repairs and maintenance</i> | | | | | |
| <i>(General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments</i> | 500,775 | | | | |
| <i>(Auxilliary) others</i> | 1,983,894 | | | | |

Table 24
PECHORA VODOKANAL
CHANGE IN ACCOUNTS PAYABLE FOR 1996

| | 1996 | Cash | Barter | Off-sets | Others |
|---|-------------------|---------------|---------------|---------------|---------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| Accounts payable at the beginning of the period including | 4,450,419 | | | | |
| <i>labor</i> | 840,905 | | | | |
| <i>energy</i> | 998,606 | | | | |
| <i>taxes</i> | 126,239 | | | | |
| <i>repairs and maintenance (General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments</i> | 500,775 | | | | |
| <i>other</i> | 1,983,894 | | | | |
| Expenses of the vodokanal (the sum of the liabilities for the period excluding including | 24,018,838 | | | | |
| <i>labor</i> | | | | | |
| <i>energy</i> | | | | | |
| <i>taxes</i> | | | | | |
| <i>repairs and maintenance (General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments (Auxilliary) others</i> | | | | | |
| Accounts paid (Barters and offsets from table 4) including | 21,093,542 | 971,946 | 2,962,209 | 17,159,387 | |
| Direct bank settlements: | | | | | |
| <i>labor</i> | 4,384,781 | 880,248 | 2,962,209 | 542,324 | |
| <i>energy</i> | 3,243,524 | | | 3,243,524 | |
| <i>taxes</i> | 10,854,203 | | | 10,854,203 | |
| <i>repairs and maintenance (General Economy) G&A</i> | 299,512 | | | 299,512 | |
| <i>emergency work</i> | 592,232 | | | 592,232 | |
| <i>0</i> | 0 | | | | |
| <i>other mandatory payments (Auxilliary) others</i> | 238,248 | 91,698 | | 146,550 | |
| <i>1,481,042</i> | 1,481,042 | | | 1,481,042 | |
| Accounts payable at the end of the period including | 7,375,715 | | | | |
| <i>labor</i> | 922,149 | | | | |
| <i>energy</i> | 1,146,341 | | | | |
| <i>taxes</i> | 114,446 | | | | |
| <i>repairs and maintenance (General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments (Auxilliary) others</i> | 3,668,340 | | | | |
| <i>1,524,439</i> | 1,524,439 | | | | |

Table 25
 PECHORA VODOKANAL
 CHANGE IN ACCOUNTS PAYABLE FOR 1996
 (INCLUDING SUBSIDIARY COMPANY BARTERS AND OFF-SETS)

| | 1996 | Cash | Barter | Off-sets | Others |
|---|-------------------|----------------|-------------------|-------------------|------------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| + Accounts payable at the beginning of the period including | 4,450,419 | | | | |
| <i>labor</i> | 840,905 | | | | |
| <i>energy</i> | 998,606 | | | | |
| <i>taxes</i> | 126,239 | | | | |
| <i>repairs and maintenance (General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments</i> | 500,775 | | | | |
| <i>other</i> | 1,983,894 | | | | |
| + Expenses of the vodokanal (the sum of the liabilities for the period excluding depreciation) | 37,786,270 | | | | |
| <i>labor</i> | | | | | |
| <i>energy</i> | | | | | |
| <i>taxes</i> | | | | | |
| <i>repairs and maintenance (General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments (Auxilliary) others</i> | | | | | |
| - Accounts paid (Barters and offsets from table 4) including | 34,860,974 | 971,946 | 15,229,908 | 17,659,120 | 1,000,000 |
| Direct bank settlements: | | | | | |
| <i>labor</i> | 4,384,781 | 880,248 | 2,962,209 | 542,324 | |
| <i>energy</i> | 3,243,524 | | 3,243,524 | | |
| <i>taxes</i> | 7,777,594 | | 7,777,594 | | |
| <i>repairs and maintenance (General Economy) G&A</i> | 299,512 | | | 299,512 | |
| <i>emergency work</i> | 2,592,232 | | | 2,592,232 | |
| <i>other mandatory payments (Auxilliary) others</i> | 0 | | | | |
| <i>other mandatory payments (Auxilliary) others</i> | 238,248 | 91,698 | | 146,550 | |
| <i>(Auxilliary) others</i> | 16,325,083 | | 1,246,581 | 14,078,502 | 1,000,000 |
| = Accounts payable at the end of the period including | 7,375,715 | | | | |
| <i>labor</i> | 922,149 | | | | |
| <i>energy</i> | 1,146,341 | | | | |
| <i>taxes</i> | 1,518,870 | | | | |
| <i>repairs and maintenance (General Economy) G&A</i> | | | | | |
| <i>emergency work</i> | | | | | |
| <i>other mandatory payments (Auxilliary) others</i> | 3,624,276 | | | | |
| <i>(Auxilliary) others</i> | 164,079 | | | | |

Table 26
PECHORA VODOKANAL
AGING ACCOUNTS PAYABLE FOR 1995

| | > 365 days | 181 - 365 days | < 181 days | Total |
|---|---------------|----------------|------------------|------------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| Accounts payable (total) | 58,543 | 179,438 | 4,212,438 | 4,450,419 |
| including | | | | |
| <i>energy</i> | | | 998,606 | 998,606 |
| <i>labor</i> | | | 840,905 | 840,905 |
| <i>taxes except labor taxes</i> | 58,543 | 174,304 | 960,362 | 1,193,209 |
| <i>Labor taxes</i> | | | 50,230 | 50,230 |
| <i>Mandatory payments to the non-</i> <i>budgetary funds except those</i> <i>related to labor costs</i> | | | 81,608 | 81,608 |
| <i>Mandatory payments to the non-</i> <i>budgetary funds related to labor</i> <i>costs</i> | | | 419,167 | 419,167 |
| <i>others</i> | | 5,134 | 861,560 | 866,694 |

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Table 27
 PECHORA VODOKANAL
 AGING ACCOUNTS PAYABLE FOR 1996

| | > 365 days | 181 - 365 days | < 181 days | Total |
|---|----------------|------------------|------------------|------------------|
| | in 000 rubles | in 000 rubles | in 000 rubles | in 000 rubles |
| Accounts payable (total) | 980,946 | 1,195,943 | 5,198,826 | 7,375,715 |
| including | | | | |
| <i>energy</i> | | | 1,146,341 | 1,146,341 |
| <i>labor</i> | | 151,666 | 770,483 | 922,149 |
| <i>taxes except labor taxes</i> | | | 158,510 | 158,510 |
| <i>Labor taxes</i> | 588,317 | 303,888 | 468,155 | 1,360,360 |
| <i>Mandatory payments to the non- budgetary funds except those related to labor costs</i> | 37,898 | 65,487 | 513,665 | 617,050 |
| <i>Mandatory payments to the non- budgetary funds related to labor costs</i> | 354,731 | 674,902 | 1,977,593 | 3,007,226 |
| <i>others</i> | | | 164,079 | 164,079 |

Table 28
PECHORA VODOKANAL
RATIO ANALYSIS

| | 1995 | 1996 |
|---|-----------|------------|
| BALANCE SHEET RATIOS: | | |
| Revenue as a % of fixed assets (net) | 20 % | 42 % |
| Revenue as a % of net total assets | 32 % | 60 % |
| Current assets as a % of fixed assets (net) | 17 % | 35 % |
| Accounts receivable as a % of revenue | 47 % | 26 % |
| Average collection period (accounts receivable) | 6 months | 3 months |
| Accounts payable as a % of revenue | 19 % | 24 % |
| Average payment period (accounts payable) | 2 months | 3 months |
| LIQUIDITY RATIOS: | | |
| Inventories as a % of current assets | 3 % | 3 % |
| Accounts receivable as a % of current assets | 91 % | 53 % |
| Current assets as a ratio of current liabilities | 1.4 times | 2.0 times |
| Cash/bank balances as a ratio of current liabilities | 0.01 | 0.00 times |
| Cash collection as a % of total collection | 29 % | 3 % |
| PROFITABILITY RATIOS: | | |
| Net profit after depreciation as a % of revenue | 9 % | 38 % |
| Net profit for the year as a % of revenue | 3 % | 19 % |
| Fines for late payment of taxes as a % of revenue | 3 % | 6 % |
| Net profit as a % of total net assets (return on capital employed) | 1 % | 11 % |

Annex 1

ASSESSMENT OF THE VODOKANAL'S PAST AND CURRENT FINANCIAL POSITION

This section gives an analysis of the past and current financial performance and structure of the Vodokanal.

1. Revenue Based on Current Tariff

The present tariff for water supply and sewerage is 2,900 and 1,633 rubles respectively per cubic meter. The population customer category pays 20 percent of the tariff (or 907 rubles per cubic meter) and the balance 80 percent is payable by the City of Pechora's Municipal Fund.

The tariff increased significantly from 1995 to 1996. In 1995, the Vodokanal charged adjacent villages a higher tariff than in Pechora. However, from 1996, the tariff for the city and the villages was the same. The tariff increase for water supply and sewerage in Pechora city in 1995 was 103% and 54% respectively (combined tariff increase 80%) whereas in 1996, the tariff increase was 185% and 130% respectively (combined tariff increase 163%).

2. Financial Analysis and Methodology

The Balance Sheets of the Pechora Vodokanal as of December 31, 1995 and 1996 are shown in Table 3. Trial Balances for December 31, 1994, 1995 and 1996 were extracted from the general ledger balances of the Vodokanal. (see Table 1) Certain journal entries were written to restate the accounts (see Table 5 for 1995 and 1996 respectively). These journal entries were listed in the relevant trial balance and an adjusted trial balance was obtained. The Balance Sheets were prepared from the adjusted trial balance. The Profit and Loss account balance in the trial balance shows the net profit for the year.

Table 2 connects the trial balance items to the Balance sheet. The signed financial statements of the Pechora Vodokanal has been reconciled with the Balance Sheets shown in Tables.

The Profit and Loss account for 1995 and 1996 are shown in Tables 8. All expenses were charged to the cost of sales account (#20) under separate expense categories on a monthly basis in the general ledger of the Vodokanal.

3. Explanatory Notes to Accounts

Balance Sheet:

Note 1. Fixed Assets

Fixed assets were revalued in 1995 by using a multiplier of 3.99 times. In 1995, all fixed assets (except the buildings) were transferred to a State entity called Customer Service Company. This company was liquidated in 1996 and the assets were taken over by Pechorazhilkomkhoz (parent company to the Vodokanal). However, the value of fixed assets transferred to the parent company was restated in the Balance Sheet of the Vodokanal by passing a subsequent journal entry shown in Table 5/95. A revaluation was long overdue because of the significant depreciation of the ruble in the past decade. A more accurate value of fixed assets could be obtained by conducting an on site physical valuation by a professional valuation expert. However, the cost of such an exercise is substantial.

The movement in fixed assets account is shown in Table 4. A detailed list of fixed assets is available in the Accounting Department of the Vodokanal.

Note 2. Accumulated Depreciation

Accumulated depreciation was also increased by using a multiplier of 3.99 times to account for the revaluation of fixed assets. Corresponding accumulated depreciation was also transferred to the parent company in 1995. However, the value of accumulated depreciation transferred to the parent company was restated in the Balance Sheet of the Vodokanal by passing a journal entry shown in Table 5/95. The movement in this account for 1995 and 1996 is shown in Table 4.

Note 3. Inventories

Inventories are valued at First In First Out basis.

Note 4. VAT on Materials

The balance on this account is available for set off against VAT payable in future years.

Note 5. Accounts Receivable

Accounts receivable increased by 290% in 1995. The collection efficiency in 1995 and 1996 was 66% and 76% respectively (see Table 8). Collection by off-sets as a percentage to total collection in 1995 and 1996 was 45% and 82% respectively. Collection by barter in 1995 and 1996 was 23% and 12% respectively. Collection in cash in 1995 and 1996 was 29% and 3% respectively (see Table 8).

Collection by off-sets is a ruble to ruble transaction and, therefore, is as good as cash provided the off-sets is done with the Vodokanal payables. The parent company has off-set some of the Vodokanal receivables with that of payables of other subsidiary companies of the parent company. This is not an acceptable method of collection