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filed electronically 8/13/08

August 13, 2008

VIA E-MAIL AND HAND DELIVERY

Chairman Tre Hargett
c/o Ms. Sharla Dillon
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, Tennessee 37243

Re: ***Petition of Tennessee American Water Company To Change And Increase Certain Rates And Charge So As To Permit It To Earn A Fair And Adequate Rate Of Return On Its Property Used And Useful In Furnishing Water Service To Its Customers Docket No. 08-00039***

Dear Chairman Hargett:

Enclosed please find an original and seven (7) sets of copies of Tennessee American Water Company's Rebuttal Testimony filed on behalf of the following witnesses: Michael A. Miller and John S. Watson in this docket. Two disks are included with this submission. The first disk contains adobe images of each production. The second disk contains all of the documents submitted in the native format. For certain witnesses, attestations will follow under separate cover.

Please return three (3) copies of this Rebuttal Testimony to me by way of our courier, which I would appreciate your stamping as "filed."

Should you have any questions concerning any of the enclosed, please do not hesitate to contact me.

Sincerely

Erin M. Everitt

Erin M. Everitt

Enclosures

cc: Hon. Ron Jones (*w/o enclosure*)
Hon. Sara Kyle (*w/o enclosure*)
Hon. Eddie Roberson, PhD (*w/o enclosure*)
Ms. Darlene Standley, Chief of Utilities Division (*w/o enclosure*)
Richard Collier, Esq. (*w/o enclosure*)
Mr. Jerry Kettles, Chief of Economic Analysis & Policy Division *(w/o enclosure*)
Ms. Pat Murphy (*w/o enclosure*)
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Frederick L. Hitchcock, Esq. (*w/enclosure*)
Mr. John Watson (*w/o enclosure*)
Mr. Michael A. Miller (*w/o enclosure*)

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing has been served via the method(s) indicated, on this the 13th day of August, 2008, upon the following:

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Em M Everitt

BEFORE THE TENNESSEE REGULATORY AUTHORITY
DOCKET NO. 08-00039

AUGUST 13, 2008

REBUTTAL TESTIMONY:
JOHN S. WATSON

ON BEHALF OF TENNESSEE AMERICAN WATER COMPANY

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Tennessee-American Water Company
Case No. 08-00039

Rebuttal Testimony
John S. Watson

Q. Please state your name and business address?

A. My name is John S. Watson and my business address is 1101 Broad Street, Chattanooga, Tennessee, 37402.

Q. Mr. Watson have you filed testimony is this rate case?

A. Yes, I have filed direct testimony in this case (TRA Docket No. 08-00039) on behalf of Tennessee American Water Company ("TAWC").

Q. What is the purpose of this testimony?

A. To rebut the testimony of the Intervenors' witnesses regarding the basis and need for TAWC's rate request, how TAWC justifies its request and the components thereof.

DECISION TO SEEK A RATE INCREASE

Q. Mr. Watson, as a preliminary matter, can you please describe the process within TAWC that leads to the Company's decision to seek a rate adjustment?

A. Each rate increase is about a regulated water company that is making an investment in the water system. The Company prepares its business plan from the bottom up, and looks at all of the requirements it has, the expectations about its operating costs (which factor in customer service expectations and regulatory requirements), the revenues, the investment, the financing of long-term and short-term debt and equity infusion, organic growth of the water system, and its capital investment program needs. Additionally, we rely upon the *Clean Water and Drinking Water Infrastructure Gap Analysis*, which is a report by the U.S. EPA, as a definitive source of information about the current state of water and wastewater system infrastructure of utilities. This data is updated or supplemented on an annual basis to stay current

on the issues of aging utility assets and ongoing efforts to maintain and improve the condition of this critical infrastructure in our nation's cities.

Procedurally, Mr. Miller reviews the business plan of the Company and advises me regarding the need to obtain rate recovery based upon the business plan. We use a very rigorous process to review at least monthly — at a minimum — the Company's financial performance. In so doing, we drill down into individual expenses, costs of supplies and materials, and services we must obtain externally in the marketplace and continually strive and work to drive those costs down. If that is not possible, then we seek to contain the costs, improve efficiencies, improve work methods through training and development, use technology to increase productivity, and make capital investments to replace and upgrade the assets and equipment that are required for us to provide quality service. However, if the Company cannot recover its investment and necessary operating costs to the degree necessary to achieve a reasonable return on its capital investments, then I as President, along with the Officers and Directors, have the obligation to seek a rate adjustment. In that instance, Mr. Miller and I jointly report to the Board of Directors of Tennessee American regarding the business plan and the recommendation to seek rate relief. We also advise on the duration and the impact of a rate request and identify the steps to address the shortfall, as well as the steps necessary to request a recovery of expenses, and investment in plant, property and equipment in water rates.

EMPLOYEE LEVELS

Q. In the course of this rate request, Tennessee American has requested authorization for 114 employees. Intervenors' witnesses have questioned this requested staffing level. How did the Company determine the proper level of employees to include in its petition?

A. TAWC's employee number is derived from the number of employees the Company needs to provide the level of service that the Company must achieve to fulfill customer service expectations and regulatory requirements. I must emphasize that no position is surplusage. The decision to create new positions or hire additional

personnel is driven by consumer and regulatory demands and is only implemented after a careful assessment of demands at present and going forward. Consequently, when TAWC service metrics in 2005 evidenced that the Company required more management and support level staff to maintain and improve the provision of water service to its customers, TAWC undertook to hire thirty-seven additional employees over the course of 3½ years (2005 through July 2008) — seven of those employees have been hired since 2007.

Q. How does TAWC's assessment of TAWC's needed workforce compare with the CAPD's witness, Mr. Buckner's, assessment?

A. Mr. Bucker recommends a reduction in TAWC workforce by five positions. This would seriously compromise TAWC's ability to provide quality water service to its customers. Moreover, the "headcount" adjustment downward by Mr. Buckner is inconsistent with the direct testimony of CAPD witness Michael Chrysler in TAWC Docket 06-00290. In that case, Mr. Chrysler complemented TAWC for the service metrics reporting, TAWC's level of service, and prompt customer response that the metrics illustrated. Mr. Chrysler went so far to say that those metrics were a model for other utilities. Mr. Buckner's recommended workforce reduction would have the effect of undermining one of the driving factors behind the service level improvements that Mr. Chrysler so recently touted.

Q. What would be the effect of Mr. Buckner's recommendation?

A. In essence, the effect of his proposal would be increased overtime, but in fact, Mr. Buckner also argues that overtime should also be reduced in the attrition year. By recommending both the elimination of five positions and reduction in overtime, Mr. Buckner is effectively claiming that the functioning of the five positions at issue should not be performed by anyone. Yet, if TAWC did not perform the functions for which the five positions are responsible, the CAPD would no doubt be among the first to fault TAWC for decreases in service, water quality, or some other consequence of not fulfilling the responsibilities of these posts. Thus, the Company found it entirely necessary to fulfill the duties assigned to these positions since

January 31, 2007 to operate the business at a level of service that TAWC customers and government regulators demand.

Q. What was Mr. Buckner's methodology in justifying his recommendation?

A. Mr. Buckner states that the TRA "should set rates upon actual employee levels, and not on speculative employment levels." Mr. Buckner used the actual employment level at March 31, 2008 of 109 employees to support his adjustment, claiming that "CAPD used current employee levels because TAWC has a history of inflating its employee costs by including in rates speculative employee levels that are not achieved."

Q. Please address Tennessee American's response to Mr. Buckner's general methodology for determining employment levels.

A. We disagree strongly with Mr. Buckner's request to reduce TAWC's workforce to 109 employees based upon the actual employment level of the Company on March 31, 2008. Mr. Buckner's basis for establishing the appropriate level of employees or expense during the attrition year is an incorrect approach in light of TAWC's service obligation and regulatory requirements. Moreover, Mr. Buckner's cherry-picking of the March 31, 2008 actual employment level, which was low for that time period, simply does not reflect actual 2008 employment levels and needs. Nor does it consider workforce turnover and movement – a significant factor affecting employee levels.

It is critical to Tennessee American's operations that it be authorized to fill each position requested in this case. As is the case with any company, all positions may not necessarily be filled at all times, but each position designated fulfills a particular need and function that is necessary to provide adequate customer service levels. I reviewed Mr. Buckner's direct and supplemental testimony, and I can only conclude that if Mr. Buckner's recommendations were adopted, the Company's ability to continue to meet customer expectations and regulatory requirements would be severely compromised. Further, I see no evidence that Mr. Buckner has performed

any analysis of the job functions that Tennessee American must perform. Absent such analysis, Mr. Buckner cannot, and does not, offer any justified explanation why the company should or could operate properly with these positions left vacant indefinitely.

Q. But Mr. Watson, Mr. Buckner claims that TAWC's employee level is speculative – how do you respond to that?

A. TAWC's requested employee level is not speculative. The 114 employees included in the Company's petition is the result of a tremendous amount of thought and investigation to determine the number of employees needed to meet the Company's mission of service. The employee level of 114 reflects the number of employees who are needed and required to meet the service levels during the attrition year in this case. Each position has particularized responsibilities that will play an integral role in the Company, however, due to the natural occurrence of workforce turnover, there are at times vacant positions that reduce TAWC's workforce below full-strength. The Company has been working diligently to fill vacancies as they occur. TAWC is not speculating as to its needs and the mere fact that every position is not filled at all times does not make the need for those positions speculative. Instead, it means that the responsibilities of the vacant positions must be covered by others (overtime contract work) or deferred. These are not long-term solutions and result in increased costs and/or further employee turnover due to excess work demand – which only compounds the problem.

Q. Mr. Watson, you mention workforce turnover as playing a significant role in determining employee levels – can you please explain?

A. Certainly. Workforce turnover is an unavoidable aspect of a business that oftentimes renders actual workforce numbers, as used by Mr. Buckner, misleading. Mr. Buckner's assessment ignores the corporate reality that all necessary positions cannot be filled at all times – i.e., that staffing a utility is a dynamic process. The fact that the Company is not always at full strength due to turnover in no way reflects a lack of desire, effort or need; instead, it's related to events beyond the Company's

control. The Company undertakes great effort to maintain a strong and productive workforce, but TAWC has experienced about a 32.4% turnover in the workforce during the past 3½ years. Such turnover results in large part from the Company's aging workforce — a trend occurring across other business sectors as well. This turnover is typically due to retirements, resignations, and in some cases, severance, termination for cause, or death — events largely beyond the Company's control. In light of these factors, in addition to normal employee turnover from events like medical leave, military duty, or personal relocations, it is understandable that TAWC cannot always maintain full employment levels.

In addition, such vacancies in the interim period require the Company to assign overtime to hourly employees, reschedule work activities, or delay the work activity that could be done on a pre-scheduled basis – but as previously noted, the remaining demands on other employees can also increase the risk of turnover, further compounding turnover. Similarly, by ignoring vacant, but needed, positions, Mr. Buckner's adjustment does not account for the costs TAWC incurs related to that vacancy, namely, cost for temporary service personnel, meal allowances, use of contracted services, recruiting expenses, physical exams, and fees for background checks that are incurred to fill vacancies within the Company. Only in some cases can the loss of an employee be absorbed on a short-term basis. Stated another way, the functions of vacant positions must still be performed at a human and financial cost and the Company must expend funds to fill vacancies. As such, Mr. Buckner ignores the realities of operating a 24/7 customer-oriented utility.

Importantly, however, that reality in no way diminishes the Company's need for those positions to be filled — it simply means that TAWC has identified a specific number of positions necessary to carry out its operations, but that unavoidable fluctuations in the workforce necessarily will result in vacancies at times. As a result, those <u>actually</u> employed will usually tend to be lower than the number of those that <u>need</u> to be employed. Tennessee American makes every effort to aggressively recruit, hire, and train new employees into the TAWC workforce to

sustain and improve its service level. Mr. Chrysler recognized TAWC's efforts in this respect in Tennessee American Water Case 06-00290 and complemented TAWC for developing and responding to the service metrics requirement from the 2004 TAWC Rate Case and stated "this is a good example of operating transparency for other utilities in Tennessee." TAWC has no intention of inflating its' payroll expense and does not do so. Instead we seek to find and hire qualified people who are needed to provide quality services to our customers.

Q. Based on your explanation of workforce turnover, how does that relate to Mr. Buckner's criticism that TAWC does not achieve its requested employee levels?

A. First, and contrary to Mr. Buckner's contention, TAWC's employment history supports the argument that TAWC has a need for the requested positions and diligently works to achieve the requested employee levels. As a general matter, the continued personnel growth throughout TAWC's employment history dictates that TAWC's current levels must expand to keep pace with operating demands.

Mr. Buckner's statement is also specifically undermined by TAWC's service metric reporting, which required TAWC to have 29 hourly personnel to achieve certain levels of performance. Similarly, Mr. Buckner's assessment also fails to recognize in the payroll adjustment to labor expense that TAWC's employment level has continued to increase toward the number of employees requested in this present rate case. The Company needs those employees to maintain adequate coverage on the meter replacement program and for other related duties. Mr. Buckner's statement is unjustified and should not be considered because it misrepresents the work that is being assigned daily. Under Mr. Buckner's logic, the employees who must complete service orders and read the meters would be required to perform the same amount of work, but with fewer employees. Although those employees are currently having to make up for the absence of three employees, this is being achieved through overtime as a temporary means to an end until three replacement employees can be hired. The Company must recover the expense of these necessary positions so that the Company can pay to have the work assigned to these positions fulfilled, such as service order

execution, meter reading functions, and other such functions the Company must perform to maintain the high level of quality service our customers have come to expect. Tennessee American employees are directly responsible for successes in delivering the work underlying TAWC's service metrics during 2007 and 2008, which demonstrate that it takes people, planning, objectives, and training in order for the Company to continue to provide excellent customer service. Tennessee American, in all of those important operational areas, requires these additional personnel as I have explained above.

Further, a closer examination of the Tennessee American workforce levels would show that the TAWC employee headcount during the period from May 2006 through January 2007 has been equal to or greater that the employee level Mr. Buckner recommended be approved in the 2005 case. In that case, Mr. Buckner recommended that three union positions be eliminated and three management positions be eliminated. The vacancies and additional positions have since been filled. The management positions are additional positions where we have identified operational gaps that must be filled and have had offers accepted for three of those. Aside from the natural challenge of finding and attracting qualified candidates to these highly technical positions, which often requires particular licensing and certifications, it is also my duty to offer existing employees an opportunity to advance within the Company, which can become a lengthy process of bidding prescribed by the TAW union contracts. Either way, when a position is filled, it is the result of a time-consuming and lengthy process that can often result in gaps in employment levels, which must be addressed through employee overtime, deferred work, or contract work— all of which result in expense to the Company.

Finally, it is important to realize that TAWC has made great strides in service improvement since the 2004 rate case thanks to increased employment levels, the improvements in service metrics, the dedication of the Company's employees, and the Company's commitment to make investment in people and capital. Accordingly,

the need for additional personnel is supported by the continued growth of TAWC's workforce throughout the course of its history.

Q. Mr. Watson, Mr. Buckner asserts that the current level of TAWC employees is sufficient to sustain the Company's provision of high quality water service – how do you respond to that?

A. Once again, Mr. Buckner ignores the reality of TAWC's customer growth in terms of size and expectations. As early as 2004, when I began working for TAWC, it quickly became apparent to me that TAWC, and particularly the company's field operations component, was not adequately staffed to accomplish all the tasks that are integral to meeting customer expectations. As a result, we committed to hire additional personnel in certain areas that were key to reducing estimates in favor of actual meter readings, addressing the increasing trend in service order requests (i.e., higher customer service expectations), and to implement the Company's meter replacement and testing program, which was on target as of December 31, 2006 and as of December 31, 2007. We are on target to complete the 2008 meter replacement program targets with the requested staffing level. As has been identified in City of Chattanooga First Discovery Data Request No. 17, the number of service orders has increased substantially over the last 3½ years from 55,910 in 2003 to 101,363 orders – this represents an 82 % increase. Overtime was initially part of the answer, but this was not a viable long-term option. Instead, our success in meeting this increased demand is partly due to additional investments in technology, but the real critical factor in improving our service has been achieved through additional personnel and establishing baseline goals regarding improvements. Those goals provide us with a measurable way to document service order tracking and through the extraordinary efforts of our employees, Tennessee American has completed this work on time over 99.5% of the time.

Also, Tennessee American has been rebuilding and reinforcing its employee ranks after a restructuring by TAWC's parent company, AWK, cut deeply into the personnel level in some areas. Since that time, I have continued to evaluate the

staffing levels to balance the level of employees in the workforce and the efficiencies that we can employ to control expenses. As a result, we have found operational gaps in TAWC that we have worked to eliminate. This has been accomplished by identifying positions of both hourly and management personnel that are necessary to servicing our customers and working with our local managers to employ the resources necessary to achieve our goals and meet our demands.

Notably, the Company has filled the positions that it identified in the 2006 Rate Case. The result was a full complement of 86 bargaining unit employees and 25 management employees in the TAWC workforce, which was consistent with the Company's 2006 Rate Case. In the past, I have identified the need for certain new positions; I will review TAWC's staffing history for the purposes of clarifying the employee head count levels that occurred beginning in the January 2007/February 2007 timeframe.

A vacancy in an existing position called Laborer/1st Relief Process Technician was opened for bids on January 12, 2007. Bids were submitted by January 19, 2007. Charlotte Hutsell, the Laborer/2nd Relief Process Technician was awarded this position to be effective January 29, 2007. By placing an internal employee in the open position, the Company then sought to backfill Ms. Hustsell's former position. Internal bidding was opened January 25, 2007, but no existing employees bid on this vacancy. The Company prepared the appropriate advertisement for newspaper and external agencies publication and began interviewing applicants on March 15, 2007. Upon completion of the interviews, an offer was made, and the offer was accepted subject to physical exam and background check of James E. Beets, who began employment on April 9, 2007.

In May 2006, the company conducted a review of the Distribution Department and determined that it would be necessary to inspect and maintain approximately 5000 fire hydrants TAWC owns at least once a year. In accordance with that goal, the company found it could only meet that required schedule by hiring an additional

employee as a Truck Driver/Utility Worker. The position was budgeted in the company's business plan effective January 2007. The Company, in accordance with the bargaining unit agreement, opened the bid on this position on December 8, 2006 to be effective in January 2007. Mr. Erich Hawes, a Field Service Representative, was ultimately the successful bidder and was awarded the position and assigned the work effective January 29, 2007 or within approximately six weeks.

The resulting Field Service Representative vacancy of Mr. Hawes was bid on January 29, 2007. However, no existing bargaining unit employee bid on the position during the 90-day bid period required by TAW union contract, which then resulted in the company pursuing external advertising for this position as previously described as well.

In another instance James Baggett, a field services representative, advised the Human Resources Department on January 15, 2007 that due to the serious health condition of his 93 year old mother, he needed to submit a request for early retirement effective March 1, 2007. The Company posted a bid for internal candidates to apply for the position in late January, but no internal candidates bid for the position during the 90-day period. The position was then externally advertised. The position was filled shortly thereafter.

As noted, in each of those cases where a vacancy occurred, within approximately six to eight weeks from the date of the vacancy, a new employee was hired to fill that vacancy, and as such, we have filled each Field Service Representative position.

In addition, the Company identified an operational gap that required the company to add a Loss Control Specialist who would be responsible for properly maintaining, updating and reviewing the local safety programs of Tennessee American Water, assuring compliance with OSHA regulations, making improvements to employee safety training, and responding to general liability claims that involve the public and the company fleet, among other duties. We determined that the earliest this position

could be budgeted was January 1, 2007, in accordance with Company's fiscal year budget plan. The Company internally posted this position and an existing TAW management employee, Kevin Highsmith, applied for and accepted an offer for this position in March 2007. He vacated his position of Network Supervisor, which the Company then opened for bids and conducted interviews during May 2007. Truck Driver/Utility Worker Marvin R. Blevins accepted Mr. Highsmith's former position as Network Operations Supervisor on May 21, 2007.

Mr. Blevins' vacated position was then posted internally for bid to hourly employees in the bargaining unit. Ultimately, Michael Griffith filled the position of Truck Driver/Utility Worker, which left a vacancy in a Field Service Representative position. We hired Joe Green on September 10, 2007 to fill the Field Service Representative vacancy, which increased the employee count to 111.

There are also definitive bases for needing two additional laboratory analysts, one of which was found and hired in 2007. At that time, I had reviewed the environmental compliance function at the Company and identified an important operational gap for an additional Laboratory Analyst due to the need to respond more promptly to customer service requests regarding water quality at customer homes, and because there are an increasing number of inquiries that TAWC receives regarding water taste/odor or cloudiness. Since the size of the customer base continues to grow, resolution by phone with existing staff had proven to be less than satisfactory to the customer. Also, there was an additional workload created by the USEPA's new regulation known as the Initial Distribution System Evaluation (IDSE), which is included in the Stage II Disinfection By-Product/Disinfection Rule, and the attendant requirements for additional sampling in the company's distribution system, plus a recurring three-year requirement in 2007 to conduct lead and copper tests, customer education, and sample collection and analysis of at least 90 TAW customers' water at the tap in the Summer of 2007. The Company realizes the great importance to responding in person to the ever increasing number of customers accounts, and with additional regulatory requirements, it necessitated the one additional Lab Analyst.

The position was posted internally for bids, but no applicants were available. The Company then advertised externally and offered a position to a qualified applicant who accepted, but was unable to pass the pre-employment screening. TAWC again advertised the position and made an offer to Kim Durham, previously employed by Tennessee American, who began her first day on April 23, 2007.

In the Production Department, we recognized the need for a lead manager over the two Production Supervisors and all of the Production facilities and processes. This person would focus on planning and performance, which was essential to current and upcoming plant operations. Also, we had recently begun the design project for the Citico Station Water Treatment Plant Upgrade and Improvements Project and it was important to have a lead manager who would provide local management support of the resulting construction in 2008 and 2009. We determined that the earliest we could budget this key management position was in the 2007 annual business plan. The Regional Production functional group also agreed with the operational gap and supported the requirement to bring this manager on-board as soon as possible in 2007. The Production Superintendent position was posted internally and Mr. Mark Zinnanti ultimately accepted the Production Superintendent position on October 22, 2007. The Company then believed it would have internal candidates to fill the Production Supervisor position vacated by Mr. Zinnanti, but both applicants ultimately turned down the offer. The Company then quickly advertised externally for the position, which resulted in James S. Moorhouse accepting the position and beginning his employment on January 21, 2008. Because TAWC must require Supervisors in the Production Department to possess a Class IV Water Operators' License in Tennessee, the candidate pool is substantially limited. The ability to place personnel is highly dependant upon the qualifications of the applicant pool, and the Company is often faced with great difficulty in locating and attracting qualified candidates.

Ultimately, it becomes clear from this movement that new positions become necessary to sustain quality of service and that allowing the Company to expand into those additional employee ranks allow the Company to achieve that objective. To say

that current employee levels are sufficient ignores the dynamic nature of the business and the fact that expanded employee levels are supported by the Company's service metrics, needs, and history. The Company has provided updated salary and wage information in response to CAPD-01-Q0011, CAPD-01-Q0012 to supplement the support for the salary and wage expense.

Q. Mr. Watson, Mr. Buckner discusses the three additional positions that are included in TAWC's current rate case and observes that the Non-Revenue Supervisor's salary was not included in the Docket 06-00290 — would you please explain this change?

A. The position of Non-Revenue Supervisor, which Mr. Ron Schleifer has been performing, was in the service metric reporting for TAWC because he supports TAWC and is physically based in Chattanooga. As a service company employee of American Water Works Service Company at that time he also supported the Kentucky American Water system which had been ongoing since August 2004. Prior to that assignment, he was Distribution (or Network) Superintendent for Tennessee American Water. Because he is located here he was included in the monthly headcount in this case and has been reported quarterly as part of the service metrics which we began reporting in early 2005 following a decision from the TRA in TAWC Docket 2004-00288. However, I made a decision that effective January 1, 2008 we transfer Mr. Schleifer back 100% to TAWC's payroll to be fully dedicated to Tennessee American Water to drive the performance of the leak detection crews and the Non-Revenue Water Program and the TAWC Non-Revenue Water Committee, as well as working as the primary liaison between all departments and functional groups in this important area to our Tennessee operations.

Q. Mr. Watson, please discuss the other two positions included in this rate case?

A. In addition to the Non-Revenue Water Supervisor, the Company also hired the Operations Specialist identified in my direct testimony. With regard to the third position, Manager – Engineering Services, the Company has encountered some difficulty in finding a suitable individual to accept the position despite a nationally

advertised search. We believe this is due to a demand in the market for experienced professional engineers, which results in a small and highly competitive applicant pool. We interviewed a number of candidates, but the one qualified candidate with senior level experience ultimately declined the offer. TAWC is making every effort to recruit for this vacancy and will hire a qualified candidate as soon as one can be found.

UTILIZATION OF AMERICAN WATER WORKS SERVICE COMPANY

Q. Mr. Watson, would you please comment on the importance and the advantages of the services and support provided by American Water Work Service Company to TAWC?

A. By utilizing the personnel and resources of American Water Works Service Company (AWWSC) TAWC realizes important economies of scale and is able to share the cost of needed, specialized support service amongst TAWC sister operating companies. The direct and rebuttal testimony of Mr. Joseph Vandenberg addresses AWWSC's provision of services to TAWC. Mr. Van den Berg's management audit identified the functions AWWSC provides to TAWC and from which TAWC customers benefit. Based on my experience in this industry, TAWC could not perform these services as cost-effectively and adeptly as AWWSC. Thus, if TAWC did not utilize AWWSC's services, TAWC customers would have to absorb the heightened costs of performing such support services at the operating company level – if TAWC could perform them at all.

Q. Can you please describe an example or two illustrating the benefit and/or value Tennessee American Water receives by utilizing the American Water Works Service Company?

A. For example, TAWC could not reasonably afford to hire a Director of Rates and Revenues solely for TAWC. This position helps structure TAWC's rates to align with revenue requirements and ensures TAWC rates are consistent with the requirements set forth by the TRA. To do so would require unnecessarily creating a full-time position that the Company does not need since it does not regularly seek rate

adjustments. In fact, TAWC has only filed four rate adjustments in the past ten years. Because TAWC is able to obtain the services of a Director of Rates and Revenues from AWWSC, we can share the cost of that position with other American Water operating companies, as well as other functional positions that are dedicated to AWWSC, only when those services are needed.

TAWC also utilizes the services of the Belleville Central Laboratory operated by AWWSC, a facility totally dedicated to drinking water analysis, and representing all American Water operating companies. Belleville Central Laboratory was granted certification under the Safe Drinking Water Act and is available to Tennessee American at cost to provide technical expertise to analyze and conduct the most sophisticated water quality analyses. By allowing the operating companies to utilize this specialized laboratory, the companies share the expense and enjoy much lower costs as a result. Within that advantage, TAWC also has access to a nationally recognized microbiologist at Belleville, Dr. Mark LeChavalier, who we can call upon as needed to review an extensive water quality database for our operations in Tennessee and provide his expertise regarding water quality issues. TAWC could not otherwise reasonably afford to retain such an expert. This same concept can be applied to the use of personnel in a number of functions including accounting services, audit services, financial services, rates and revenue services, communication services, administrative services, human resources services, legal services, engineering services, customer service including the Call Centers, information technology services, supply chain functions for procurement of goods and services, as well as water quality and environmental compliance that are all essential to TAWC's core business.

I would roughly estimate that providing such support services in-house would cost significantly more in operating expenses annually than what TAWC now pays – a cost much greater than what customers pay now for TAWC to receive the services from AWWSC. To do so would require at least 50 additional employees and would require the local company to find and lease additional building space, hire and equip

an information system department and employees, an accounting department, a finance department to perform specialized work to go to the bond market and to work with investors and banks to obtain the necessary utility grade bonds and loans at the same competitive rates as is performed through AWWSC and that are also knowledgeable in TRA rate case preparation and support. Additionally, the Company would have to purchase or lease a billing system mainframe computer and bill printing system, along with software, and additional laboratory equipment purchases would be needed. Also needed would be: analysts to be certified to perform the water quality testing, customer service staff and management to provide 24/7/365 coverage, as the Call Centers do now, which would among other key needs would require a substantial a phone system investment, along with furniture and building systems' electrical and communication wiring for all of the personnel added, plus benefit costs and other day-to-day expenses for those employees. Ultimately, the AWWSC services are simply much more cost effective due to economies of scale.

Q. The CAPD has questioned the control procedures TAWC uses to evaluate AWWSC charges to TAWC – can you describe how you evaluate service company charges?

A. I attach my Supplemental Testimony from Docket 06-00290, which generally describes the process I undertake in reviewing and exercising oversight over service company charges to TAWC. The relevant testimony begins on page 10 of that testimony.

UNACCOUNTED FOR WATER LEVELS

Q. Mr. Watson, can you please address Mr. Michael Gorman's determination of the company's unaccounted for water level?

A. Yes. On Page 14 of Mr. Gorman's testimony, he indicated that the Company recorded 27.5% lost and unaccounted for water for the 12 months ending November 30, 2007. This is erroneous. In fact, the Company's unaccounted for water level was 20.02%, and for the most recent period calculated for the 12 months ending July 2008 unaccounted for was 18.06%. Thus, according to our records, Mr. Gorman's

calculation was incorrect. It is evident that Mr. Gorman has calculated the unaccounted for water percentage using an altogether different method, which used the unaccounted for water value reported for the end of the historic test year and divided that number by the water sales volume. I submit this is incorrect and therefore it renders an inaccurate percentage for his adjustment. Mr. Miller will address this further in his rebuttal testimony.

Let me next explain what unaccounted for water is and how it should be calculated. Unaccounted for water loss is determined by subtracting the amount of water that is sold to customers (billed water sales less credit adjustments) from the amount of water treated, pumped, and measured from the water treatment facilities of the utility (system delivery). Also included in the accounting are authorized unbilled water uses that are known and measurable by the water utility for a number of uses that are implicitly or explicitly authorized to do so, and real losses due to leakage that is repaired on transmission and distribution mains, and service lines up to the point of metering and fire hydrants, which are an asset of TAWC. The percentage of unaccounted for water is obtained by dividing the unaccounted for water volume by the water delivered to the Company's distribution system from its water treatment facilities deducting internal uses for water treatment at water treatment process. Some examples of unbilled authorized use are water used for fire fighting, street cleaning, sewer flushing, draining of water storage tanks during painting and inspection, main flushing, customer leak adjustments, and water meter testing by the water utility.

Q. Is TAWC undertaking any efforts to manage "unaccounted for water?"

A. TAWC has an extensive "non-revenue water program" and has expended significant efforts to minimize and reduce unaccounted for water for a number of years. TAWC has reinforced the importance of this effort by establishing a "non-revenue water committee," which is lead by the TAWC Non-Revenue Water Supervisor Ron Schleifer. The NRW Committee includes a total of eleven employees that actively participate as representatives from every department. I am a member of that

committee as well. The Committee routinely meets monthly to discuss the progress and results of the efforts that are made across the business. The Committee has developed a strategy to implement a large number of actions and points of data collection in order to obtain all types of information to account for water losses, real and apparent. Additionally, every employee of Tennessee American Water is responsible to assist while in the performance of their work to reduce unaccounted for water by reporting leaks, repairing leaks, inspecting facilities and customer's premises for unauthorized use, and assuring that meter reading billing of customers is completed accurately and timely. Finally, there are two full-time employees in the Distribution Department who constitute the full-time leak detection crew at TAWC.

The Company has also made significant capital investment in electronic leak detection and survey equipment to survey for leakage in the distribution system. TAWC has also purchased and installed over 1400 "permalog" electronic surveying devices at a cost of nearly $400,000, which are strategically placed at valve locations throughout the distribution system to detect low-level vibration and sound that the permalog system interprets as indicating that a leak is beginning in a section of pipe near the permalog device. The permalog devices currently provide coverage for about 80% of the distribution system and the leak detection crew survey them monthly by mobile survey. The leak detection crew conducts manual surveys of the remainder of the system by walking the pipe route to patrol for leaks. Meter readers and field service personnel also are able to detect or sound for leaks as they perform service orders and/or meter readings each day. Distribution department repair crews making repairs and installing and replacing pipe, valves and fire hydrants also sound for leakage after each repair in the immediate area. Other capital investment includes the replacement of customer water meters on a periodic scheduled basis to assure that meter accuracy is maximized, and a small diameter water replacement program, which has been replacing on average about five (5) miles of 2-inch and 2-1/2 inch water main per year in the distribution system. Capital investment in small diameter mains is necessary and ongoing and will remain a prudent capital investment going forward to address the likelihood for this type of pipe to have

higher maintenance requirements due to the construction material itself, the quantity of these materials in the water system as a percentage of the total and the vintage of the piping materials relative to other modern and durable materials that are installed currently. In addition, TAWC vigilantly maintains its pipelines serving high altitude areas, which are prone to leaks due to increased p.s.i. pressure and therefore can contribute to unaccounted for water.

Legislation recently enacted by the Tennessee legislature now requires public Tennessee water utilities to report "unaccounted for water" percentages on an annual basis starting in 2008. As this data is gathered and calculated by other water suppliers, which was not a requirement when the last TAWC rate case was heard by the Authority, other public water systems will now report their results for the first time. Initial reports indicate that large systems like Nashville and Knoxville Utility Board, among others, expect that the percentage of unaccounted for water is likely to range from 25% to 35% in those systems.

TAWC has conducted a water audit of its systems, which rendered a management tool called a "Water Balance Report," which is attached for the years 2006, 2007 and Year-to-Date period ending June 30, 2008. (See Exhibit JSW-4). From this report, TAWC has categorized the water accounted for in accordance with the International Water Association Guidelines. From this information, TAWC has calculated a detailed performance indicator for operational management of real water losses to determine the infrastructure leakage index, or ILI, which is the ratio of annual real losses to the unavoidable annual real losses (UARL). The basis for using the UARL is to make due allowance for length of mains, number of service connections, location of customer meters, and average operating pressure. The ILI measures how effectively the three infrastructure activities, speed and quality of repairs, active leakage control and pipe materials are being managed at the current operating pressure. Values close to 1.0 represent near-perfect technical management of real losses from infrastructure, at actual operating pressures. In fact, the Leak Detection and Water Accountability Committee of the AWWA has recommended that the

methodology be introduced throughout AWWA and North America, and several papers have been written describing initial performance comparisons using the ILI approach. TAWC has achieved an ILI of 1.93, which is an excellent result given that 1.0 is a perfect score. (See Exhibits JWS-5, JSW-6).

TAWC relies on American Water procedures, practices and strategies, the AWWA standards and recommendations for water systems, and the use of the International Water Association's publication "Losses in Water Distribution Networks," which provides updated US and International water audit methodologies. (See Exhibit JSW-3). Knowledge and experience of our local staff, along with regional and national experts in our business are now adopting this comprehensive audit process to assess, monitor and control water losses to reduce "unaccounted for water," which in our specific case applies to a distribution system which has been operating for over 138 years. TAWC undertakes this effort to achieve an aggressive goal of 15% as a ratio of water sold to customers plus water authorized but not billed, divided by the water treated and pumped from treatment facilities and delivered to the distribution system.

In accordance with these standards and goals, TAWC has routinely calculated water loss to arrive at unaccounted-for water on a monthly basis, year-to-date basis, and on an annual 12 month rolling basis for at least thirty years. Further, TAWC has operated a leak detection program for at least twenty years that utilized electronic technology to monitor and detect leakage and continues to upgrade leak detection equipment to meet the technology of the industry. Tennessee American Water has also provided data in response to data requests CAPD-01-Part IV-Q0082 and CAPD-01-Part IV-Q0083, which reflect TAWC's unaccounted for water percentages by month since February 2007 and annually at year-end since for 2007. Also see CAPD-01-Q035 from Docket 06-00290 for yearly percentages dating back to 2000.

Due to the complexity of TAWC's water system, the variation in operating pressures of its distributions system, the distribution of customers served, and the history of the

water distribution system construction and the hydraulic conditions, TAWC's water system is far more complex than many water systems of comparable size in the United States. The Company has achieved water loss reductions in unaccounted for water in the last three years in terms of the percentage and in gallons of system delivery. TAWC is committed to continuing to make capital investment going forward and depends upon the adequate return on investment to attract the debt and equity to finance the capital improvements. Tennessee American understands the priorities and has the managerial, technical and financial capabilities to make continued progress toward its 15% goal; however, water loss control will always require constant vigilance to obtain that goal.

Q. Has the Company's efforts to manage unaccounted for water involved any capital expenditures that factor into your expenses?

A. Yes. As noted above, there are the expenditures to invest in computers and software to monitor and detect unaccounted for water. Additionally, there are ongoing capital investments in the infrastructure of our water system, especially given the advanced age of much of our distribution system.

CALCULATING EXPENSES – CAPITAL INVESTMENTS

Q. Mr. Watson, in response to Intervenors' testimony, can you please further elaborate on some of the investment expenses undertaken by the Company and why they are necessary?

A. One of primary drivers of this rate case is the Company's continued investment in infrastructure. As the President and Chief Executive Officer of TAWC, I have explained that the Company finds it necessary and prudent to continue to make capital improvements to invest in the infrastructure of the utility. For example, unlike many water utilities throughout Tennessee, as well as other utilities across the United States, TAWC's distribution system operating conditions involve very high operating pressures within its distribution system. Operating pressures to service Lookout Mountain in Tennessee and Georgia, Signal Mountain, and the Walden's Ridge Utility District can reach as high as 500-600 p.s.i. In other areas of the

distribution system, such as in the Lakeview area, the water main working pressures are as high as 235-300 p.s.i. Such pressures require the Company to make further investment in piping and pressure control infrastructure, which is appropriate given the age of distribution system. Currently, the Company is in the design and permitting process with the National Park Service and affected property owners to replace the Lookout Mountain Supply Mains, which are currently estimated to cost $950,000 for a 600 foot section of pipe attached vertically to the escarpment of the mountain during the attrition year. The leakage that would occur if we did not maintain the water mains and service to customers and make improvements as required would result in poor service and customer complaints. There also would be an increase in unaccounted for water until the leakage was found and addressed. Pressure reduction valves in these areas and zone metering will also reduce the unaccounted for water as we make further investment of this kind during the attrition year. Continued infrastructure investment will be needed for infrastructure replacement in these and other areas of Tennessee American's piping network, which is appropriate given the age of distribution system. The water loss reduction program continues to be refined and capital investment by the company continues to be prioritized to assure that it will provide tangible benefits toward meeting the service requirements of Tennessee American customers. However, it is absolutely critical that Tennessee American achieve an adequate return on investment, as part of the regulatory compact with this Authority, in order to attract the investment which is necessary and appropriate to continue to fund capital investments for water service in this community. These, and projects like these, are a part of the overall program to reduce "unaccounted for water" in the water system.

The Intervenors from the City of Chattanooga and in some respects the Consumer Advocate and Chattanooga Manufacturer's Association challenge whether such capital investment is in fact prudent and necessary. In addressing this line of reasoning, I am including as an Exhibit (JSW-2), which provides a listing of the 134 projects by location and description that Tennessee American has identified and has constructed, or is in the process of designing and constructing. These projects span

from the beginning of the test year through the attrition year of the rate request, and spans the same period of March 1, 2007 through August 31, 2009, that TAWC is asking the Authority to allow rate base recovery for, as well as the other appropriate expense items that have been included in the record of this case and of which the Company seeks recognition. These projects represent capital improvements related to the provision of water service and benefit the water utility customers of TAWC. These assets include installation and replacement of water mains, service lines and water meters, fire hydrants, water storage tanks, pumping and water treatment equipment, construction tools, vehicles, capitalized tank rehabilitation, laboratory and sampling equipment, computers and printers all to conduct the business of the water utility. It includes the capital investment for the Citico Water Treatment Plant so that the plant may continue to provide excellent water quality and reliable service to our customers. These investments are required to maintain customer satisfaction, and to properly treat, pump and distribute water service to our customers.

CALCULATING EXPENSE – OPERATING COSTS

Q. Mr. Watson, would you please describe some of the challenges specific to operating expenses that have contributed to TAWC's need for a rate increase?

A. Operating expenses are increasing in a number of categories due to the continued escalation of the costs of the goods and services that Tennessee American must purchase to meet its public service obligation to its customers. Since the case was filed on March 14, 2008, the Company has experienced price increases in electricity, sewer service, water treatment chemicals, gasoline, diesel fuel, asphalt pavement materials, ductile iron pipe, postage, gravel and other backfill materials, concrete, steel, laboratory supplies, granular activate carbon, as well as freight costs on the deliveries of materials and supplies which are included in the list above and generally across the board for nearly everything we need. To the extent cost increases are known and measurable, Company witness Sheila Miller will describe in further detail the adjustments necessary to the accounting exhibits in this case. Some of the items TAWC needs to operate are continuing to escalate in cost, including an impending increase to electric rates this fall. Thus, the Company faces the prospect that there

will be further increases in many of these items beyond the timeframe of the procedural schedule provided for in this case. Such increased expenses, with continuous capital investments, are two of the major areas that I and my staff work to manage in this current economic environment. The Intervenors in this case attempt to disregard these economic realities.

Q. Mr. Watson, Mr. Buckner claims that TAWC's rate request does not accurately reflect the "economic environment in which the Company operates." Is this an accurate statement?

A. No. Mr. Buckner claims that "TAWC's petition for a rate increase would be onerous on Chattanoogans; it would outstrip inflation and it is not supported by the cost structure of TAWC or the economic environment in which the company operates." Mr. Buckner does not support his conclusion that the rate increase, which averages $3.65 per month for our average residential customer, is "onerous" and his conclusory dismissal denies the indisputable reality that costs have gone up and continue to increase at a rate greater than inflation. For example, electric rates in Chattanooga have been rising at a rate of 15% in the first two quarters of 2008; the cost of fuel has gone up 66% since January 2007; the cost of asphalt paving has gone up 18%; sewer rates have increased at a rate of at least 6% per year — all of which are far greater than the 4.34% inflation rate used by Mr. Buckner. In the case of the cost of water treatment chemicals for 2009, Fluoride increased by 65.3% from the 2008 unit price, sodium hydroxide (caustic soda) increased by 179%, and zinc orthophosphate increased by 245% per pound. As a general matter, almost anything that is related to the petrochemical industry is rising dramatically faster than inflation; i.e., the cost of products that contain steel in them has increased by 36% this year. Thus, a world of increasingly escalating costs is the economic environment in which we operate. TAWC is simply doing its best to adapt to those economic realities while still providing quality water service. It is unreasonable for Mr. Buckner to expect that Chattanooga's economic realities would not affect TAWC or for Mr. Buckner to suggest that TAWC should simply absorb such cost increases.

Q. Mr. Watson, can you please address TAWC's response to Mr. Buckner's accusation that "TAWC is unable to operate within their own budgets?"

A. As noted above, the cost increases being experienced in the utilities industry and nationwide are real and measurable. More importantly, those costs are beyond TAWC's control. As the President of TAWC, I have a fiduciary obligation on behalf of customers and stockholders to file a rate increase when the earnings are substandard and the assets and capitalization are not aligned. Mr. Buckner's statement ignores basic economic realities. Nearly every single utility serving the Chattanooga area and beyond have needed to take into account increasing costs demonstrated by the rate increases that are occurring almost everywhere. The CAPD cannot reasonably expect TAWC to be immune from cost increases or for TAWC to both meet the CAPD's demands for increasing service levels and system improvements while at the same time arguing that TAWC should be denied the employees and funds it needs to meet the CAPD's own demands.

MR. BUCKNER'S RATE DESIGN AND COMPARISONS

Q. Mr. Watson, do you agree with Mr. Buckner's rate design and cost of service comparisons?

A. I disagree with Mr. Buckner's rate design and dispute the conclusions he draws from his comparisons of TAWC's residential rates to five other selected cities. In my direct testimony, I referenced the Allen and Hoshall Water and Sewer Rate Study to provide in context the relative price of water in the State of Tennessee. It is appropriate to review what the retail price of water is amongst the water providers and to provide regulators and other interested parties, such as customers, some indication of the market because water is a commodity, but it is also an essential service, which has a value and a cost. My purpose was to indicate that in the Tennessee market of water providers, TAWC is well within the price range of the market despite factors in Chattanooga that increase the cost of water service, such as our mountainous topography. Second, it is important that essential services reflect the conditions within the local market. Tennessee American rates are relatively lower than the average monthly water bill of many other Tennessee water providers, a

sample of which takes into account a broad range of factors. However, Mr. Buckner implies that the five city group he selects is better or more appropriate that the entire group of 243 water utilities.

The purpose that the Allen and Hoshall Water and Sewer study serves is: a) to provide a general idea of the water utility bill amounts for each of the surveyed entities at set water use quantities; and b) to set forth the water utility billing amount based upon a hypothetical quantity of water service for a pre-determined meters size and hypothetical quantity per month upon which the utility can calculate a sample bill for water service. Relative to other water utilities across the state, TAWC was just below average in terms of the monthly water bill. This indicates that TAWC remains within the "affordable" service range. Even the recent 2008 Allen and Hoshall study ranked TAWC 86th of 243 water utilities surveyed on the residential rates consuming 5000 gallons per month with a 5/8" x ¾" meter. If I were then to use current water rates for TAWC as granted in TAWC Case 06-0290 in May 2007, it would place TAWC at a position in the study of less than 65% of the municipal water systems surveyed. TAWC will likely maintain or improve its position over time because other utilities have sought or likely will seek rate adjustments.

Q. Would you please discuss in further detail the distinctions among residential and commercial water rates and fees that need to be considered when comparing water service providers?

A. Often, fees and charges by Tennessee municipal water utilities that collect other fees and charges as a revenue component, including part of their revenue requirement — in other words, municipal water companies often subsidize the cost of their water service thereby making the true cost to end users difficult to compare. TAWC's rates and fees as components of revenue are all included in the TAWC regulated revenue requirement. Absent data on what customers must actually pay directly or indirectly to a municipal utility provider, the overall true cost of service will not be apparent. As a result, when Mr. Buckner and Mr. Gorman claim that TAWC's customers "are already paying more than water customers in five other major Tennessee cities," these

witnesses are not making an apples to apples comparison. City and county water utility districts data shows that TAWC customers' rates are the sixth lowest of the ten water systems in that comparison group. (See Exhibit JSW-7).

A comparison based on rates alone does not necessarily account for the fees and charges adding to revenues for some utility providers. For example, tap fees are charged for Metro/Nashville Water Service, Knoxville Utility Board, or Memphis Gas Light and Water, or such water utilities as the Lenoir City Water Board, which also includes an infrastructure surcharge. Each of these water utilities also rely upon plan review fees, flow testing of hydrant fees, inspection fees, and even fees for a copy of the customer's lost bill. Tap fees of water utilities are a charge to the customer just like the monthly water bill.

In comparison, TAWC has no tap fee, which saves our customers money. Such savings are apparent: the Water Utility Districts in Hamilton County range from $325 to $3,500 per residential connection while Nashville Metro Water charges a $430 residential water tap fee and a $1,000 per unit of flow (350 gpd) capacity fee. Metro Water Nashville also charges a minimum $500 plan review fee for water line extensions minimum. (See Exhibit JSW-8).Additionally, TAWC pays property taxes and income taxes that the other six municipal systems do not have to pay. There is also a dramatic difference in treatment costs associated with the MLGW system since it has a groundwater source, which is much less expensive in terms of chemical costs associated with purifying the water. The MLGW also operates in an area that is quite flat, which directly affects the cost of water distribution. In contrast, TAWC operates in a geographical location that increases operating expenses due to the mountainous terrain and the need to treat river water that has a degree of sediment and is not naturally pure.

Once all of this is considered, the fact that TAWC's rates are as low as they are is a testament to TAWC's tremendous efforts towards increasing efficiencies within its business. Thus, Mr. Buckner's statements regarding relative rates of service and

blanket statements comparing TAWC to other providers fail to take into account location specifics and other relevant distinctions. Such distinctions between utility providers should be considered before any legitimate criticism should be levied. When such distinctions are considered, TAWC rates favorably compare.

Q. Does this conclude your testimony?

A. Yes, it does.

Actual Employee Levels vs. TAW Projections

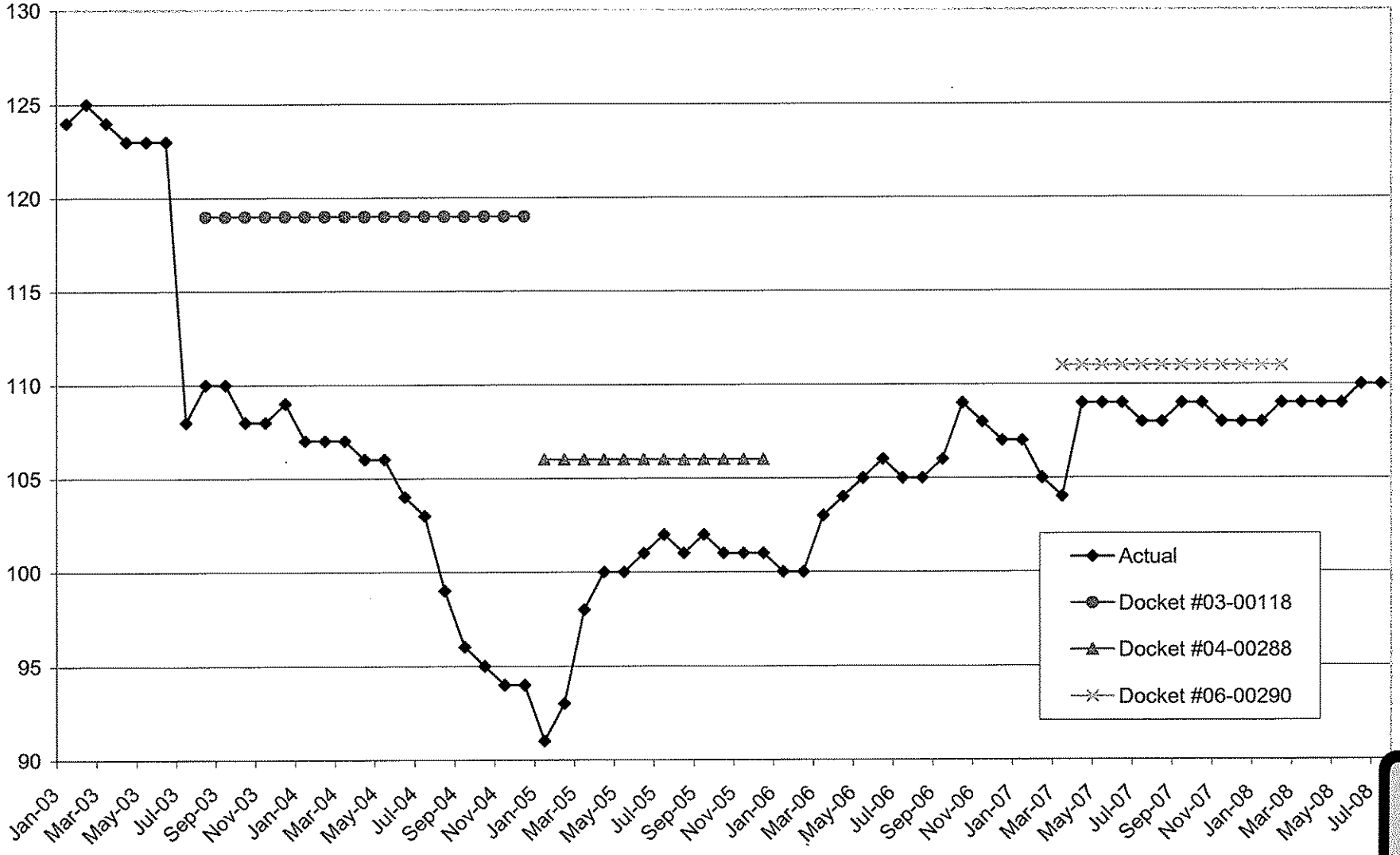


EXHIBIT JSW-1

Month	Actual	Docket #03-00118	Docket #04-00288	Docket #06-00290
Jan-03	124			
Feb-03	125			
Mar-03	124			
Apr-03	123			
May-03	123			
Jun-03	123			
Jul-03	108			
Aug-03	110	119		
Sep-03	110	119		
Oct-03	108	119		
Nov-03	108	119		
Dec-03	109	119		
Jan-04	107	119		
Feb-04	107	119		
Mar-04	107	119		
Apr-04	106	119		
May-04	106	119		
Jun-04	104	119		
Jul-04	103	119		
Aug-04	99	119		
Sep-04	96	119		
Oct-04	95	119		
Nov-04	94	119		
Dec-04	94	119		
Jan-05	91		106	
Feb-05	93		106	
Mar-05	98		106	
Apr-05	100		106	
May-05	100		106	
Jun-05	101		106	
Jul-05	102		106	
Aug-05	101		106	
Sep-05	102		106	
Oct-05	101		106	
Nov-05	101		106	
Dec-05	101		106	
Jan-06	100			
Feb-06	100			
Mar-06	103			
Apr-06	104			
May-06	105			
Jun-06	106			
Jul-06	105			
Aug-06	105			
Sep-06	106			
Oct-06	109			
Nov-06	108			
Dec-06	107			
Jan-07	107			
Feb-07	105			
Mar-07	104			

Apr-07	109	111
May-07	109	111
Jun-07	109	111
Jul-07	108	111
Aug-07	108	111
Sep-07	109	111
Oct-07	109	111
Nov-07	108	111
Dec-07	108	111
Jan-08	108	111
Feb-08	109	111
Mar-08	109	
Apr-08	109	
May-08	109	
Jun-08	110	
Jul-08	110	

Engineering Department

SUPPLEMENTAL RESPONSES TO CITY OF CHATTANOOGA

06/26/2008

PROJECT NAME	LOCATION	DESCRIPTION	DATE COMPLETED	PLANNED COMPLETION
16" in Tyner Rd.	Tyner	Install 16"main in Tyner Rd. east from Lee Hwy. crossing under I-75. Then continuing in an easement across Standifer Place to Cemetary Rd, about mid-point to Jenkins Rd. Plus 2 Fire Hydrants.	12/01/07	
12" In Frawley Rd.	Frawley Rd (East Ridge)	Install 12"main in Frawley Rd. south from Martha Ave to south of Layfield Rd. Plus replace 5 fire hydrants and 1 new Fire Hydrant	12/01/07	
Prater Rd.	Prater Rd.	Install 199 ft of 8" main, going south from Spring Creek Rd. to an exsisting main.	12/01/07	
The Palms	Off of Concord Rd	Install 190 ft of 8"main going west from the 7000 block of N. Concord Rd. forming an "L" shape.	12/01/07	
Fire Hydrant on McCutcheon Rd.	McCutcheon Rd.	Install Fire Hydrant on McCutcheon Rd. between Lee Hwy & Lee Parkway.	12/01/07	
Broad St & 25th St	Broad St & 25th St	Relocate Fire Hydrant to accomidate City of Chattanooga's change of the turning radius.	12/01/07	
Install Fire Hydrant, Greenway View	Greenway View Dr.	Install a Fire Hydrant on Greenway View Dr. just west of Cornelison Rd.	12/01/07	
Peach Tree Condo	Page Rd,	Install 880 ft of 8"main and 1 Fire Hydrant, running east from Page Rd. between Lakeview Dr. and Kelsey Dr.	12/01/07	
Page Rd. phase I	Page Rd.	Install 473 ft of 8" in Page Rd. between Monahan Ave & Kelsey Dr.	12/01/07	
Page Rd. phase II	Page Rd.	Install 601 ft of 8"in Page Rd. between iend of exsisting main and Lakeview Dr.	12/01/07	
The Havens @ Commons Park	Commons Blvd.	Install 690 ft of 12"main, 75 ft of 8"main and 1 Fire Hydrant, from end of exsisting main.	12/01/07	
Kirkgate subdivision	Woodnymph Tr.	Install 790 ft of 6" main and 2 Fire Hydrants going south from Woodnymph Tr.	12/01/07	
White Oak Tank	Midvale Ave - Hamilton Ave	Tank Painting	12/01/07	
Island Ave. - GPS School	205 Island Ave.	Install 524' 8" DI in Island Ave. from GPS driveway south and west to a point and (1) fire hydrant	12/01/07	
Pointe Centre Dr.	1206 Pointe Center Dr.	Install 180' 8" DI in Pointe Centre Dr. from existing main southeast to a point	12/01/07	
Main St. Hydrant Relocate	Main St.	Install new fire hydrant on Main St. southeast of Chestnut St.	12/01/07	
Longholm at Riverview	Longholm Ct.	Install 680' 8" DI in Longholm Ct. from E. Dallas Rd. south to the cul-de-sac and (1) fire hydrant	12/01/07	
Kirkman Rd.	Kirkman Rd.	Install 2,326' 8" DI in Kirkman Rd. from Bonny Oaks Dr. south to Tyner Rd. and (3) fire hydrants	12/01/07	
Brainerd Rd.	Brainerd Rd.	Install 1,941' 12" DI in Brainerd Rd. from Germantown Rd. southeast to Provence St.	12/01/07	
Ashland Ter.	Ashland Ter and Crestview Dr.	Install 1,322' 6" DI in Ashland Ter. from Knollwood Dr. southeast to a point and northeast on Crestview Dr. from Ashland Ter. to a point	12/01/07	
Cummings Place Apts.	Easement north from Cummings Hwy	Install 425' 8" DI in Cummings Place north from Cummings Hwy. to a point	12/01/07	
Rosewood Ave.	Rosewood Ave.	Install 547' 6" DI in Rosewood Ave. from Manning St. north to Colby St.	12/01/07	
Dorchester Rd.	Dorchester Rd., Golf St. & Devonshire St.	Install 1,127' 8" DI in Dorchester Rd. from Riverview Rd. southeast to Golf St. and northeast in Golf St. and northeast in Devonshire Ave. and (1) fire hydrant	12/01/07	
Walnut Hill Townhomes	Easements south from E. 2nd St.	Install 630' 6" DI in easements south from E. 2nd St. and between Walnut St. and Cherry St.	12/04/07	
John Wise Apartment Complex	710 Cherokee Blvd.	Install 230' 8" DI in Cherokee Blvd. from Cherokee Park northwest to a point and (1) fire hydrant	12/07/07	
Laverne Dr.	Laverne Dr.	Install 761' 6" DI in Laverne Dr. from Whirlaway Dr. southwest to cul-de-sac	12/09/07	
Anderson Estates Dev.	Rench Ln. & Mesquite Ln.	Install 320' 8" DI and 660' 6" DI in Remch Ln. and Mesquite Ln. southeast from McBrien Rd. to cul-de-sacs and (1) fire hydrant	12/12/07	
Forrest Ave.	Forrest Ave.	Install 345' 8" DI in Forrest Ave. south from E. Manning St. to Kent St. and (1) fire hydrant	12/21/07	
Ryan St.	Ryan St.	Install 230' 8" DI in Ryan St. from Main St. southwest to a point and (1) fire hydrant	12/27/07	
Gloverknoll Drive	Gloverknoll Drive (Walker Co)	Install 1,026' - 8" DI in Gloverknoll Drive and 1st St	12/27/07	
Oakwood Ln.	Oakwood Ln.	Install 784' 6" DI in Oakwood Ln. north from Riverview Rd. and west to Minnekahda Rd. and (1) fire hydrant	12/28/07	
The Village @ Frawley Lake	Off of Frawley Rd.	Install 1,218 ft of 8" going west from 700 block of Frawley Rd. forming an incomplete loop.	12/31/07	
2007 East Ridge Fire Protection	Various locations in East Ridge	Spring Creek Rd. @ Ringgold Rd, Spring Creek Rd. @ Prater Rd., Yale St. @ Graston Ave., S. Moore Rd. @ Oakdale Ave., S. Moore Rd. @ Maryland Dr., Fountain Ave. @ Belvoir Ave., Belvoir Ave. @ Wiley Ave. & Shadowlawn Dr. @ Bennett Rd.	12/31/07	

EXHIBIT JSW-2

Engineering Department

SUPPLEMENTAL RESPONSES TO CITY OF CHATTANOOGA

06/26/2008

PROJECT NAME	LOCATION	DESCRIPTION	DATE COMPLETED	PLANNED COMPLETION
Old Lee Hwy.	Old Lee Hwy.	Install 400' 8" DI in Old Lee Hwy. from end of existing main northeast to a point and (1) fire hydrant	12/31/07	
Two North Shore	Easement north of 317 Manufacturers Rd.	Install 360' 8" DI in easement from 317 Manufacturers Rd. north to a point	12/31/07	
38th St	W. 38th St.	Relocate 12" main in W. 38th St. to accomidate City of Chattanooga Sanitary Sewer replacement, between Central Ave. and Alton Park Blvd.	12/31/07	
Shallowford Rd.	Shallowford Rd.	Relocate 16"main to avoid conflict with the widening and lowering of Shallowford Rd. between Edgmon Forest Ln. and Center St.	12/31/07	
Brainerd Fire Protection	Manor Drive	Install a cross tie an 8" main to 16" main in Manor Drive east of Brainerd Road	12/31/07	
Kenton Ridge subdivision	Kenton Ridge Circle	Install 1,225 ft of 8", 375 ft of 6" and 2 Fire Hydrants.	01/01/08	
Read Ave Fire Hydrant	20th St. & Read Ave	Install Fire Hydrant	01/01/08	
Andover Place Dev.	Graham Rd. & Andover Place	Install 748' 8" DI in Graham Rd. from Sterling Oaks Ln. southeast to Andover Place and 680' 6" in Andover Place north from Graham Rd. to cul-de-sac and south from Graham Rd. to cul-de-sac and (2) fire hydrants.	01/07/08	
HH Gregg	Elam Ln	Install 1,150 ft of 8" and 1 Fire Hydrant in an easement running west and south from Elam Ln.	01/28/08	
Shallowford Rd. & Lee Parkway Fire	Shallowford Rd. & Lee Parkway	Relocate Fire Hydrant to accomidate TDOT changed pland	02/01/08	
FedEx	Parcel Way	Install 900 ft of 12" main in a private road going west from the 3100 block of Alton Park Blvd. and 2 Fire Hydrants.	03/01/08	
Corporate Image @ Shallowford	Shallowford Rd.	Install 520 ft of 8"main, 347 ft of 4"main in Corporate Image of Shallowford which is west of the 6000 block of Shallowford Rd.	03/01/08	
Holland Gardens Townhomes	Standifer Gap Rd.	Install 800 ft of 8" main and 2 Fire Hydrants going west from 7700 block of Standifer Gap Rd.	03/01/08	
Sims St	Sims St.	Install 91 ft of 6"main in Sims St., between Dodsona Ave. and Curtis St.	03/01/08	
8" In Oak Hill Rd.	Oak Hill Rd.	Skyview Dr. to a point west of Sunflower Ln. Plus 1 Fire Hydrant	04/01/08	
Concord Creek Office Park	Gunbarrel Rd.	Install 346 ft of 6" and 80 ft of 4" and 1 Fire Hydrant going west from the 1500 block of Gunbarrel Rd.	04/01/08	
Keeble St.	Keeble St.	Install 921' 8" Di from Ringgold Rd. to McKinley St. and (1) Fire Hydrant	04/01/08	
Colville St.	Colville St.	Install 556' 4" DI in Colville St. west from Forrest Ave. and northeast in Colville St. Alley to a point	04/19/08	
Polk St.	Polk St.	Install 498' 6" Di in an easement running northwest from Polk St. and 284' 8" DI running southwest from Polk St. easement to a point.	05/05/08	
Folts Dr.	Folts Dr.	Install 146' 8" DI north from existing main in Folts Dr. to a point	05/14/08	
Woodside & 13th Ave.	Woodside & 13th Ave.	Relocate 291 ft of 6" main 13th Ave between Woodside St. and E. 25th St.	06/01/08	
FH Old Mtn Rd.	Old Mtn. Rd & Pennesylvania Ave.	Install Fire hydrant on 16" main	06/01/08	
Fire Hydrant on Honest St.	Honest St. west of Lee Hwy.	Install Fire Hydrant on Honest St.	06/01/08	
Graceworks Church	Easement N.W of 6445 Lee Hwy.	Install approx. 509' 12" Di Main and (I) Fire Hydrant	06/07/08	
Vance Ave. Fire Hydrant	Vance Ave.	Relocated fire hydrant to a larger main to improve local fire protection	06/18/08	
Abernathy St.	Abernathy St.	Install 530' 6" DI in Abernathy St. from Woodland Ave. east to Forrest Ave.	06/18/08	
Chattanooga Zoo	Easement southeast of E 3rd St.	Install 323' 8" DI and 10' 6" DI in easement from end of existing main southwest to a point and (1) fire hydrant	06/22/08	
West End Ave.	West End Ave.	Install 1,729' 6" DI from Altamaha St. southeast to W. End Ave. and southwest to Oakdale Ave. Also on Marian St. from W. End. Ave. to Plesant St. and (1) fire hydrant.	06/23/08	
Chattanooga Kidney Ctr.	Morrison Springs Rd.	Install 200' 8" DI from Morrison Springs Rd. northeast to a point and (1) fire hydrant	06/25/08	
Glenshire Ln.	Glenshire Ln.	Install 907' 6" DI from Gentry Rd. northwest to cul-de-sac and (1) fire hydrant		06/28/08
Tremont St. Fire Hydrant	Tremont St.	Relocated fire hydrant on Tremont St. to higher pressure main to improve local fire protection		07/07/08
Iris Glen	Iris Glen Ln.	Install 368' 6" DI in Iris Glen Ln. from Iris Dr. southwest to cul-de-sac and (1) fire hydrant		07/07/08
Labrador Heights	Davidson Way	Install 1,128 ft of 6" main and 2 Fire Hydrants. Davidson Way runs north from Davidson Rd. west of Charlotte Ave.		07/15/08

Engineering Department

SUPPLEMENTAL RESPONSES TO CITY OF CHATTANOOGA

06/26/2008

PROJECT NAME	LOCATION	DESCRIPTION	DATE COMPLETED	PLANNED COMPLETION
Worthington St.	Worthington St., Crozier Ave. & Overman Sts.	Install 728' 6" DI in Worthington St. southeast to Crozier Ave. and southwest on Crozier Ave. to a point and southwest on Overman St. to a point		07/20/08
Astec Ind - Jerome Ave.	4101 Jerome Ave.	Install new fire hydrant at 4101 Jerome Ave.		07/22/08
Windward Preserve	Webb Rd.	Install 3,980 Ft of 8" going west from Webb Rd. following a curvish route and forming a loop and tieing into Inlet Harbor Ln.		07/30/08
Silverdale Baptist Church	Bonny Oaks Dr.	Install 800 ft of 6" in an easement going southwest from Bonny Oaks Dr.		07/30/08
Fire Hydrants	Various parts of Chattanooga	Install replacement fire hydrants on 24" main Vine & Palmetto Sts., Palmetto & E. 5th Sts., 16" main Georgia Ave.& High St. and Walnut & 1st Sts.		07/30/08
Spring Garden Lane	Spring Garden Lane	Install 1,771' - 8" DI main in Spring Garden Lane and Cedar Hurst Ave west of Maplewood Drive		07/30/08
Claire Street	Claire Street (Catoosa Co)	Install 3,142' - 8" DI in Claire St from Sheila Gail Lane east to west Lakeview Dr		07/31/08
Vermont St. Fire Hydrant	Vermont St.	Install new fire hydrant in Vermont Ave. at Glenwood Pky.		08/10/08
Blue Cross Blue Shield	ML King Blvd	Install 475' - 12" DI main, meter vault, and pump station to Blue Cross Complex		08/20/08
S. St. Marks Ave.	S. South Marks Ave.	Install 1,438' 6" DI from Mayfair Ave. northeast to Sunbeam Ave. and southeast to S.. Howell Ave. and (1) fire hydrant		08/23/08
Bennett Rd. 8" main	Bennett Rd.	Install 764 Ft of 8"main and 1 Fire Hydrant in Bennett Rd. between Greenslake Rd and Orlando Ave.		08/31/08
E. 17th St.	E. 17th St.	Install 160' 8" DI in E. 17th St. from end of existing main southeast to Polk St.		09/01/08
45th St. Fire Hydrant	45th St.	Relocated fire hydrant on 45th St. to a larger main to improve local fire protection		09/03/08
Fairfield Inn	Easement north & west of Cummings Pl.	Install 840' 8" DI in easement		10/21/08
Pineville Rd. Apartments	Old Pineville Rd.	Install mains for apartment complex east side of New Pineville Rd. between Delawanna Ter. And Old Pineville Rd.		11/05/08
Chamberlain Ave.	Chamberlain Ave.	Locate fire hydrant at Chamberlain Ave. & Holly St. to larger main to improve fire protection		11/12/08
Moonstone Rd.	Moonstone Rd.	Install 290' 6" in Moonstone Rd. from Spears Ave. west to dead end		11/25/08
Johnson St.	Johnson St.	Install 218' 4" DI in Johnson St. northwest from Baldwin St. to a point		11/25/08
The Village @ Frawley Lake	Off of Frawley Rd. (Phase II)	Install 910 ft of 8" completing the previously installed loop.		11/30/08
Jenkins Rd.	Jenkins Rd	Install 946 Ft of 12" main south from an exsisting main and 2 Fire Hydrants		11/30/08
Stein Dr.	Stein Dr.	Install 471 ftof 6" main in an easement going east from Stein Dr.		11/30/08
Cross Creek Villas	Webb Rd. & Oakwood Dr.	Install approximately 3,500 ft of main 4", 6" & 8"		11/30/08
Moore Rd. main extension	Moore Rd.	Install 255 ft of 8" from end of exsisting main, near Brainerd High School		11/30/08
Eucalyptus Dr	Eucalyptus Drive	Install 1,00' - 6" DI main in new developmetn east of Eucalyptus Drive		11/30/08
Belvoir Dr.	Belvoir Dr	Install 900 ftof 6"main in Belvoir Ave. and 1 Fire Hydrant, between Belvoir Dr. and Sweetbriar Ave.		12/01/08
Dogwood Ln.	4100 Dogwood Ln	Install Fire Hydrant 4100 Dogwood Ln.		12/01/08
Fairleigh & Bliss Sts	Fairleigh & Bliss Sts	910 ft of 6" main and 1 Fire Hydrant in Fairleigh and Bliss Streets.		12/01/08
Elder Cove	Willow Lake Cir.	Install 2,955' 6" in Willow Lake Cir. From Browns Ferry west circling back to same and (5) fire hydrants		12/04/08
Surge Relief Mountain Creek	Signal Mountain Rd - Suck Creek	Install surge relief valves.		12/08/08
UTC Wellness Ctr.	E. 3rd St.	Install 400' 12" DI in E. 3rd St. from Mabel St. east to Douglas St. and (1) fire hydrant		12/09/08
Vine & Holly Sts. Fire Hydt.	Vine St.	Install 36' 6" DI in Vine St. from end of existing main to Holly St. and (1) fire hydrant		12/18/08
E. 5th St.	E. 5th St.	Install 1,130' 6" DI in E. 5th St. from Central Ave. west to beyond Weihl St.		12/29/08
Duncan Ave.	Duncan Ave.	Install 465' 8" DI in Duncan Ave. from Holtzclaw Ave. to Spruce St.		01/05/09

Engineering Department

SUPPLEMENTAL RESPONSES TO CITY OF CHATTANOOGA

06/26/2008

PROJECT NAME	LOCATION	DESCRIPTION	DATE COMPLETED	PLANNED COMPLETION
Standifer Gap Rd.	Standifer Gap Rd.	Install 3,603' 8" DI in Standifer Gap Rd. from Hickory Valley Rd. to Lee Hwy. and (1) fire hydrant		01/06/09
E. 35th St. Place	E. 35th St. Place	Install 218' 8" DI in E. 35th Street Place from Jerome Ave. to end of existing main in E. 35th St. Place		02/04/09
Duncan. Ave.	Duncan Ave.	Relocate (2) fire hydrants in Duncan Ave. to larger main to improve fire protection		02/18/09
Olive St.	Olive St.	Install 300' 6" DI in Olive St. between 13th St. & 14th St.		02/20/09
43rd. Street @ Tenn Ave	43rd Street @ Tenn Ave	Relocate fire hydrant to higher pressure main to improve fire protection		02/27/09
Buckley St.	Buckley St.	Install 145' 8" in Buckley St. from end of existing main south to Bailey Ave.		03/05/09
Willow St.	Willow St.	Install 385' 8" DI in Willow St. between 19th & 20th St.		04/20/09
Meadow Falls Lane	Meadow Falls Ln	Install 430' - 6" DI in Meadow Falls Lane from Isbille Road west to dead end		04/29/09
Park Dr.	Park Dr.	Install 691' 6" DI in Park Dr. southeast from Lee Hwy. and southwest through easement		05/11/09
Madison St.	Madison St.	Install 528' 8" DI in Madison St. between 16th & 19th St.		05/14/09
Awtrey St.	Awtrey St,	Install 2,356' 6" DI in Awtrey St., Andrews St., and Frost St. between N. Chamberlain Ave. and Campbell St.		05/15/09
Cheek St.	Cheek St.	Install 2,313' 8" DI in Cheek St., Taylor St. and Cherry St. between Crutchfield St. and Glass St.		05/29/09
Cash Canyon Rd. extension	Cash Canyon Rd.	Install 1,383 ft of 8" main in Cash Canyon Rd. from end of exsisting main to 1650		06/30/09
E 16th Street	E 16th Street	Install 411' - 6" DI in E 16th Street west from Dodds Ave to a point		06/30/09
Madison Glen Subdivision	Madison Glen Dr.	Install 1,014' 6" DI in Madison Glen Dr. from the dead end of Peckinpaugh Dr.to Heiskell Dr. and (1) fire hydrant		07/30/09
Grand Ave.	Grand Ave.	Install 990' 8" DI in 46th St. west from Oakland Ave. to Grand Ave. then north to W. Hill St. and (1) fire hydrant		07/30/09
Old Ringgold Rd.	Old Ringgold Rd.	Install 2,800' 8" DI in Old Ringgold Rd. between 17th St. & 18th St.		07/30/09
Cummings Hwy @ Lookout Creek	Cummings Hwy @ Lookout Creek	Relocate 6" & 12" mains to accomidate TDOT's bridge replacement		08/01/09
Lee Hwy @ RR Crossing	Lee Highway	Offset approximately 1,400 ft of 12" main to accomidate TDOT's widening of the overpass bridge		08/01/09
St. Elmo Blvd @ creek	St. Elmo Ave south of W. 57th St	Replace exsisting 2"main to accomidate TDOT's replacement of the bridge		08/01/09
Ringgold Rd. @ Camp Jordan Rd.	Ringgold Rd. @ Camp Jordan Rd.	Offest mains to accomidate TDOT's rework of this intersection		08/01/09
Webb Rd. Development	Webb Rd.	Webb Rd. across from Windward Preserve install 3,476ft of mains and 3 Fire Hydrants		08/06/09
Missionary Ridge Tank	500 Blk N. Crest	New Storage Tank		08/09/09
Citico Treatment Plant	9 Weilh Street	WATER TREATMENT PLANT IMPROVEMENTS		08/09/09
Florida Ave.	Florida Ave.	Install 945' 8" DI in Florida Ave. from 50th St. north to 47th St. and (2) fire hydrants		08/17/09
Grand Ave.	Grand Ave.	Install 1,150' 8" DI in 42nd St. from Oakland Ave. west to Cain Ave.		08/27/09
Lookout Mtn force main	side of Lookout Mtn	Install approximately 500 ft each for 2 parallel 12" main up the side of Lookout Mtn crossing the bluff.		08/30/09
N. Concord Rd.	N. Concord Rd..	Install 4,980' 8" DI in N. Concord Rd. from E. Brainerd Rd. north to Igou Gap Rd.		08/30/09
Igou Gap Rd.	Igou Gap Rd.	Install 3,450' 8" DI in Igou Gap Rd. from N. Concord Rd. east to Gunbarrel Rd.		08/30/09
Nituna Ave	Nituna Ave (Catoosa Co)	Install 1,394' -8" DI main in Nituna Ave from Bishkoko Ave south to Lakeview Drive		08/30/09
16" to Catoosa Co.	East Ridge	Install 16"main in McDonald Rd. south from Ringgold Rd. to State Line Rd. Then east in State Line Rd. continuing under I-75 through easements to Scruggs Rd.		08/31/09
Meadow View Lane	Meadow View Lane (Catoosa Co)	Install 2,220' - 8" DI main in Meadow Veiw Lane from State Line Road south to Bellmeade Dr.		08/31/09
Cross Street	385 Cross Street (Catoosa Co)	Install 215' - 8" DI main in Cross Street from Hillsboro Rd north to 385 Cross Street		08/31/09

Engineering Department

SUPPLEMENTAL RESPONSES TO CITY OF CHATTANOOGA

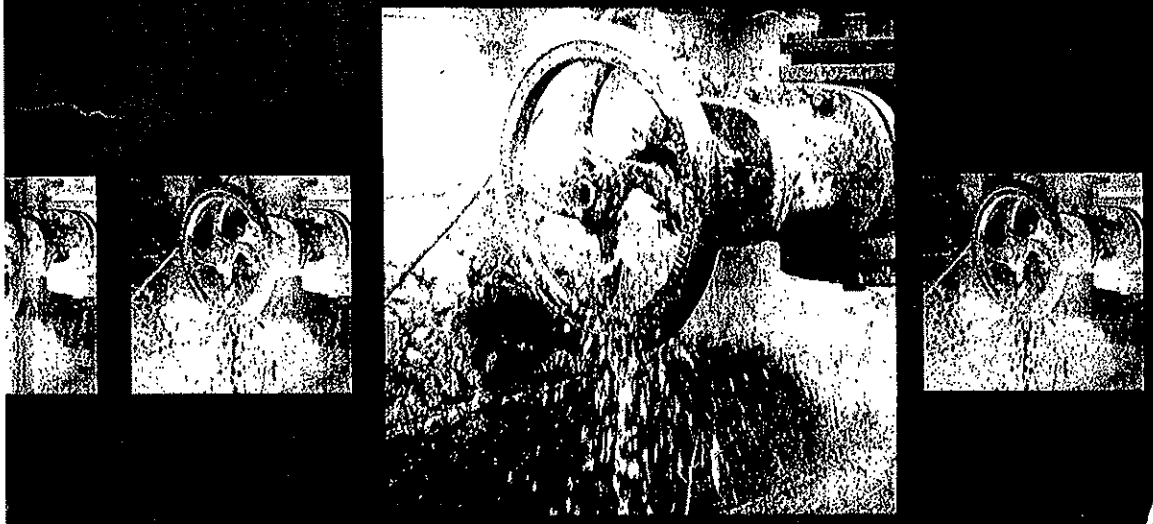
06/26/2008

PROJECT NAME	LOCATION	DESCRIPTION	DATE COMPLETED	PLANNED COMPLETION
E. 8th Street	E. 8th Street	Insall 545' - 6" DI in E. 8th Street from Central Ave east to O'Neal Street		08/31/09

EXHIBIT
JSW-3

Losses in Water Distribution Networks

A Practitioner's Guide to Assessment, Monitoring and Control



Malcolm Farley and Stuart Trow

IWA Publishing

YR 2006

Daily Water Balance Year to Date (1,000's Gallons)

39,281 System Input Volume (corrected for known errors)	Authorized Consumption 30,598	Billed Authorized Consumption 30,181	Billed Metered Consumption (inc. water exported) 30,181	Revenue Water 30,181
			Billed Unmetered Consumption 0	
		Unbilled Authorized Consumption 417	Unbilled Metered Consumption 5	Non-Revenue Water (NRW) 9,100
			Unbilled Unmetered Consumption 412	
	Water Losses 8,683	Apparent Losses 160	Unauthorized Consumption 160	
			Customer Metering Inaccuracies 0	
			Data Handling Errors 0	
		Real Losses 8,522	Leakage and Overflows at Utility's Storage Tanks 35	
			Identified Leakage on Distribution Mains and Services 1,137	
			Unidentified Leakage in Distribution System 7,351	
			Leakage on Service Connections to Meter 27	

EXHIBIT JSW-4

Chattanooga

Daily Water Balance Year to Date

(1,000's Gallons)

40,304 System Input Volume (corrected for known errors)	Authorized Consumption 31,332	Billed Authorized Consumption 31,332	Billed Metered Consumption (inc. water exported) 31,332	Revenue Water 31,332
			Billed Unmetered Consumption 0	
		Unbilled Authorized Consumption 0	Unbilled Metered Consumption 102	Non-Revenue Water (NRW) 8,971
			Unbilled Unmetered Consumption 479	
	Water Losses 8,390	Apparent Losses 103	Unauthorized Consumption 103	
			Customer Metering Inaccuracies 0	
			Data Handling Errors 0	
		Real Losses 8,288	Leakage and Overflows at Utility's Storage Tanks 37	
			Identified Leakage on Distribution Mains and Services 1,392	
			Unidentified Leakage in Distribution System 6,859	
			Leakage on Private Services Before Meter 0.00	

Daily NRW Volume Per Customer (in gallons)	121.04	Daily Unavoidable Leakage UARL (in thousands of gallons)	2,140.000
NRW Volume in GPM (in gallons)	6,230	Daily Unaccounted For Volume (in thousands of gallons)	6,859.351
NRW Volume Per Mile of Main in GPM (in Gallons)	4.90	Unaccounted For Percentage	17.0%

Chattanooga

Daily Water Balance Year to Date

(1,000's Gallons)

37,951 System Input Volume (corrected for known errors)	Authorized Consumption 30,405	Billed Authorized Consumption 30,405	Billed Metered Consumption (inc. water exported) 30,405	Revenue Water 30,405
			Billed Unmetered Consumption 0	
		Unbilled Authorized Consumption 0	Unbilled Metered Consumption 90	Non-Revenue Water (NRW) 7,546
			Unbilled Unmetered Consumption 361	
	Water Losses 7,095	Apparent Losses 95	Unauthorized Consumption 95	
			Customer Metering Inaccuracies 0	
			Data Handling Errors 0	
		Real Losses 6,999	Leakage and Overflows at Utility's Storage Tanks 31	
			Identified Leakage on Distribution Mains and Services 828	
			Unidentified Leakage in Distribution System 6,140	
			Leakage on Private Services Before Meter 0.00	

Daily NRW Volume Per Customer (in gallons)	101.27
NRW Volume in GPM (in gallons)	5,240
NRW Volume Per Mile of Main in GPM (in Gallons)	4.10

Daily Unavoidable Leakage UARL (in thousands of gallons)	0.000
Daily Unaccounted For Volume (in thousands of gallons)	6,139.953
Unaccounted For Percentage	16.2%

AWWA Water Loss Control Committee (WLCC) Water Audit Software v2.0

PURPOSE: This spreadsheet based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery

USE: The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons on the left below. Descriptions of each sheet are also given below.

THE FOLLOWING KEY APPLIES THROUGHOUT:

- Value must be entered by user
- Value may be entered by user
- Value calculated based on input data

Please begin by providing the following information, then proceed through each sheet in the workbook:

NAME OF CITY OR UTILITY: Tennessee American Water COUNTRY: The Great United States of America

REPORTING YEAR: 2007 START DATE(MM/YYYY): Jan-07 END DATE(MM/YYYY): Dec-07

NAME OF CONTACT PERSON: Ron Schleifer E-MAIL: TELEPHONE: Ext.

PLEASE SELECT PREFERED REPORTING UNITS FOR WATER VOLUME: million gallons (US)

Click to advance to sheet...

Instructions	The current sheet
Reporting Worksheet	Enter the required data on this worksheet to calculate the water balance
Water Balance	The values entered in the Reporting Worksheet are used to populate the water balance
Definitions	Use this sheet to understand terms used in the audit process
Water Loss Standing	Use this sheet to help interpret the results of the performance indicators

EXHIBIT USW-5

AWWA WLCC Water Audit Software: Reporting Worksheet

Back to Instructions

? Click to access definition

Water Audit Report for: Tennessee American Water
Reporting Year: 2007

Please enter data in the white cells below. Where possible, metered values should be used; if metered values are unavailable please estimate a value. Indicate this by selecting a choice from the drop box to the left, where M = measured (or accurately known value) and E = estimated.

ALL VOLUMES TO BE ENTERED AS ANNUAL QUANTITIES

WATER SUPPLIED

Volume from own sources:	M	14,777.6	million gallons (US) per year	
Master meter error adjustment:	M	0.0		million gallons (US) per year
Water Imported:	M	0.0	million gallons (US) per year	
Water Exported:	M	1,508.6	million gallons (US) per year	
WATER SUPPLIED:		13,269.0	million gallons (US) per year	

AUTHORIZED CONSUMPTION

Billed metered:	M	11,523.6	million gallons (US) per year
Billed unmetered:	M	0.0	million gallons (US) per year
Unbilled metered:	M	15.8	million gallons (US) per year
Unbilled unmetered:	E	166.5	million gallons (US) per year
AUTHORIZED CONSUMPTION:		11,705.9	million gallons (US) per year

WATER LOSSES (Water Supplied - Authorized Consumption) 1,563.1 million gallons (US) per year

Apparent Losses

Unauthorized consumption:	E	37.4	million gallons (US) per year
Customer metering inaccuracies:	M	0.0	million gallons (US) per year
Data handling errors:	M	0.0	million gallons (US) per year
Apparent Losses:		37.4	million gallons (US) per year

Real Losses

Real Losses (Water Losses - Apparent Losses): 1,525.7 million gallons (US) per year

WATER LOSSES: 1,563.1 million gallons (US) per year

NON-REVENUE WATER

NON-REVENUE WATER: 1,745.4 million gallons (US) per year

SYSTEM DATA

Length of mains:	M	1,272.0	miles	
Number of active AND inactive service connections:	M	74,541		
Connection density:		59	conn./mile main	
Average length of private pipe:	M	0.0	ft	(pipe length between curbstop and customer meter or property
Average operating pressure:	E	120.0	psi	

COST DATA

Total annual cost of operating water system:	M	$17,856,300	$/Year
Customer retail unit cost (applied to apparent losses):	M	$3.02	$/1000 gallons (US)
Variable production cost (applied to real losses):	M	$211.00	$/million gallons (US)

DATA REVIEW - Please review the following information and make changes above if necessary:

- Input values should be indicated as either measured or estimated. You have entered:
  - 15 as measured values
  - 3 as estimated values
  - 0 without specifying measured or estimated
- It is important to accurately measure the master meter - you have entered the measurement type as: measured
- Cost Data: No problems identified

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume:	13.2%
Non-revenue water as percent by cost:	2.7%
Annual cost of Apparent Losses:	$112,948
Annual cost of Real Losses:	$321,923

Operational Efficiency Indicators

Apparent losses per service connection per day:	1.37	gallons/connection/day
Real losses per service connection per day*:	56.08	gallons/connection/day
Real losses per length of main per day*:	N/A	
Real losses per service connection per day per psi pressure:	0.47	gallons/connection/day/psi
? Unavoidable Annual Real Losses (UARL):	2.17	million gallons/day
? Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	1.93	

* only the most applicable of these two indicators will be calculated

AWWA WLCC Water Audit Software: Determining Water Loss Standing?

Back to Instructions

Once data has been entered into the Reporting Worksheet, the performance indcators are automatically calculated. How does a water utility operator know how well his or her system is performing? The AWWA Water Loss Control Committee provided the following table to assist water utilities is gauging an approximate Infrastructure Leakage Index (ILI) that is appropriate for their water system and local conditions. The lower the amount of leakage and real losses that exist in the system, then the lower the ILI value will be.

Note: this table offers an approximate guideline for leakage reduction target-setting. The best means of setting such targets include performing an economic assessment of various loss control methods. However, this table is useful if such an assessment is not possible.

General Guidelines for Setting a Target ILI
(without doing a full economic analysis of leakage control options)

Target ILI Range	Financial Considerations	Operational Considerations	Water Resources Considerations
1.0 - 3.0	Water resources are costly to develop or purchase; ability to increase revenues via water rates is greatly limited because of regulation or low ratepayer affordability.	Operating with system leakage above this level would require expansion of existing infrastructure and/or additional water resources to meet the demand.	Available resources are greatly limited and are very difficult and/or environmentally unsound to develop.
>3.0 -5.0	Water resources can be developed or purchased at reasonable expense; periodic water rate increases can be feasibly imposed and are tolerated by the customer population.	Existing water supply infrastructure capability is sufficient to meet long-term demand as long as reasonable leakage management controls are in place.	Water resources are believed to be sufficient to meet long-term needs, but demand management interventions (leakage management, water conservation) are included in the long-term planning.
>5.0 - 8.0	Cost to purchase or obtain/treat water is low, as are rates charged to customers.	Superior reliability, capacity and intregrity of the water supply infrastructure make it relatively immune to supply shortages.	Water resources are plentiful, reliable, and easily extracted.
Greater than 8.0	Although operational and financial considerations may allow a long-term ILI greater than 8.0, such a level of leakage is not an effective utilization of water as a resource. Setting a target level greater than 8.0 - other than as an incremental goal to a smaller long-term target - is discouraged.		
Less than 1.0	If the calculated Infrastructure Leakage Index (ILI) value for your system is 1.0 or less, two possibilities exist. a) you are maintaining your leakage at low levels in a class with the top worldwide performers in leakage control. b) A portion of your data may be flawed, causing your losses to be greatly understated. This is likely if you calculate a low ILI value but do not employ extensive leakage control practices in your operations. In such cases it is beneficial to validate the data by performing field measurements to confirm the accuracy of production and customer meters, or to identify any other potential sources of error in the data.		

EXHIBIT JSW-6

EXHIBIT
JSW-7

City of MURFREESBORO TENNESSEE

Creating a better quality of life

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- Customer Service
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- GIS
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- Water Treatment
- Wastewater Treatment

CITY GOV'T
- Mayor
- City Council
- City Departments
- City Jobs

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- Webmaster
- Feedback form
- Site Map
- Suggestions

Contact Info

Murfreesboro Water and Sewer Department - (615) 848-3209

Utility	Minimum Bill				For 5,000 gallons (667 Cubic Feet)		
	Gallons	Water	Sewer	Total	Water	Sewer	Total
Harpeth Valley UD	1000	5.25	5.75	11.00	14.65	24.15	38.80
Smyrna	2000	6.75	9.59	16.34	13.11	17.24	30.35
Franklin	1000	5.22	7.05	12.27	19.38	20.49	39.87
Murfreesboro	**1496 (200 CF)**	**8.22**	**10.62**	**18.84**	21.02	26.68	47.70
Clarksville	2000	7.08	13.50	20.58	17.70	26.25	43.95
CUD	2000	12.78	10.62	23.40	34.45	26.68	61.13
Brentwood	2000	11.62	14.53	26.15	26.03	29.80	55.83
Nashville	1496	9.17	17.17	26.34	17.21	32.21	49.42
Whitehouse UD	1000	9.50	27.50	37.00	26.00	40.22	66.22

MWSD INFO
- Boards & Committees
- Contact Info
- FAQ
- Forms
- Kids Page
- Maps
- Repurified Water
- Welcome!

WATER AND SEWER RATES
- Water and sewer rates effective July 1, 2008
- Rate schedules - 2008-09 rates 2007-08 rates
- Rate comparisons
- Rate survey

REPORTS
- 2007 Annual Water Quality Report
- City of Murfreesboro's Annual Report

EXHIBIT
tabbies
JSW-8

METRO WATER SERVICES

METRO WATER SERVICES
DIVISION OF ENGINEERING
PLANS REVIEW FEE WORKSHEET

PLEASE SUBMIT THIS WORKSHEET WITH EACH PROJECT

ACTIVITY	**EACH**	**FEE DUE**
1 PUMP STATION (water or sewer) at $500.00 - ***enter each***		
2 PUMP STATION Standard Specification - ***enter each*** minimum charge $150.00		
	LINEAR FEET	
3 WATER LINES REVIEW FEE (**use only a or c NOT BOTH**)		
a Length for review **(1 to 1,000 feet)** - ***enter total footage*** **(just Fire Hydrant - type in)** minimum charge $500.00		
c Length for review **(over 1,000 feet)** - ***enter total footage*** minimum charge $500.00+$0.05 per foot		
4 SEWER LINES REVIEW FEE (**use only a or c NOT BOTH**)		
a Length for review **(1 to 1,000 feet)** - ***enter total footage*** **(just Manhole - type in)** minimum charge $500.00		
c Length for review **(over 1,000 feet)** - ***enter total footage*** minimum charge $500.00+$0.50 per foot		
TOTAL PLAN REVIEW FEE **Payable to Metro Water Services**		**$0.00**
5 WATER/SEWER SYSTEM PLAN MODIFICATIONS (**enter *yes* if required**) The plans review fee for modifications to previously approved construction plans shall be 20% of the review fee		
	EACH	
6 MISCELLANEOUS (Reports, Addendums, etc.) $150.00 each		

* revised 8/1/2007

PROJECT NAME: _____

MWS PROJECT #: _____

ENGINEER: _____

ADDRESS: _____

E-MAIL: _____

PAYMENT BY: (***check one - X***)
☐ Developer
☐ Engineer

Other: _____

Address: _____

METRO WATER SERVICES ENGINEERING USE ONLY

Date received: _____

Check #: _____

Check Amount: _____

Receipt #: _____

R. DALE GRIMES
TEL: (615) 742-6244
FAX: (615) 742-2744
dgrimes@bassberry.com

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OTHER OFFICES

NASHVILLE MUSIC ROW
KNOXVILLE
MEMPHIS

April 26, 2007

VIA HAND-DELIVERY
Chairman Sara Kyle
c/o Sharla Dillon
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, Tennessee 37243-0505

Re: Petition Of Tennessee American Water Company To Change And Increase Certain Rates And Charges So As To Permit It To Earn A Fair And Adequate Rate Of Return On Its Property Used And Useful In Furnishing Water Service To Its Customers; Docket No. 06-00290

Dear Chairman Kyle:

Enclosed please find an original and sixteen (16) copies of Tennessee American Water Company's E-CIS Supplemental Testimony of John S. Watson.

Please return three copies of the Testimony, which I would appreciate your stamping as "filed," and returning to me by way of our courier.

Should you have any questions concerning any of the enclosed, please do not hesitate to contact me.

With kindest regards, I remain

Yours very truly,

R. Dale Grimes b/p M.S.

R. Dale Grimes

RDG/ms
Enclosures

cc: Hon. Pat Miller (*w/o enclosure*)
Hon. Ron Jones (*w/o enclosure*)
Hon. Eddie Roberson (*w/o enclosure*)
Ms. Darlene Standley, Chief of Utilities Division (*w/o enclosure*)
Richard Collier, Esq. (*w/o enclosure*)
Mr. Jerry Kettles, Chief of Economic Analysis & Policy Division *(w/o enclosure*)
Ms. Pat Murphy (*w/o enclosure*)
Michael A. McMahon, Esq. (*w/enclosure*)
Frederick L. Hitchcock, Esq. (*w/enclosure*)
Vance Broemel, Esq. (*w/enclosure*)
Henry Walker, Esq. (*w/enclosure*)
David Higney, Esq. (*w/enclosure*)
Mr. John Watson (*w/enclosure*)
Mr. Michael A. Miller (*w/enclosure*)

Tennessee-American Water Company

John S. Watson

E-CIS Supplemental Testimony

Q. What is E-CIS?

A. E-CIS stands for Enhanced Customer Information System. E-CIS is the infrastructure that supports Tennessee American's customer service functions. E-CIS is integrated with the J.D. Edwards accounting software, the Service First customer services computer system, and the Equinox meter reading system.

Q. Mr. Watson, please explain what functions and value E-CIS provides to the customers of Tennessee American Water.

A. E-CIS provides tremendous benefit to our customers because Tennessee American workers and the Call Center now have available the detailed information they need to address customer problems and customer questions, and this information is available on a real-time basis. E-CIS provides the foundation for Tennessee American's customer service – among other things, by powering and linking the Call Center and Service First (the "Toughbook" computer system that our Field Service Representatives use when they visit customer locations). For example, if one of our customers calls the toll-free Call Center service line on their way to work to report a leak in front of their house, a service order can immediately be generated for that address. Then, via Service First, a repair crew can be dispatched and can make the repair. The repair crew can then enter the results of what was found and what they did to address the problem. We can

update the customer regarding the repair that was made, and when the customer calls back to see if it is fixed, we can have that information readily available for them, so that they know whether, for example, their water is back on and they can go home from work knowing that the repair is completed or whether further repairs are still needed. This type of information is valuable to our customers because they can call us at their convenience 24 hours a day, 7 days a week, 365 days a year and we can answer their questions immediately. This capability has greatly enhanced customer satisfaction and demonstrates our commitment and ability to be very responsive and proactive in meeting our customers' expectations for service.

Q. What are the other advantages to customers that the E-CIS provides that were not available before the E-CIS was implemented?

A: Prior to the implementation of E-CIS, Tennessee American could not offer the same level of service functions described in my response above. Additionally, E-CIS enables Tennessee American to better and more efficiently serve customers in numerous ways such as the following:

(1) we can confirm that all of our customers are billed each month, and we have the ability for Call Center representatives to view the bills sent to a customer if the customer calls with questions;

(2) we can review the number of customers that received estimated bills in a given month in contrast to bills generated from actual meter readings. This function helps us better track our progress on our goal of increasing actual meter readings;

(3) We can review the top one hundred accounts by customer classification each month. This helps us track our water usage patterns so we can better plan for infrastructure maintenance and growth;

(4) We can also obtain information in E-CIS about any customer, their payment history, the number of bills produced for our customers, how to contact them, whether they paid online by credit card, paid to the lockbox service, or paid at a local payment location and their balance remaining, if any. We can determine if any letters have been sent to our customers, and print a copy of those letters;

(5) We can also review service order history for each customer at the account level, the detail of who took the call and what the call was regarding; whether a service order was generated; what work was actually performed; any comments about what was found on site; whether water was turned on, shut off, any meter reading obtained, or other field work that was completed; and any comments noted by the Field Service Representative.

(6) We can review the history of what services, such as water service, sewer service, garbage service, water line protection, sewer line protection, in-home protection and sales taxes, they are being billed for.

All of the data and correspondence is located in one place in E-CIS, and it is all integrated with the meter reading activity and Service First. This wealth of information helps us to better respond to customer calls about service and bills. It also helps us identify trends in customer problems and concerns so we can work to improve our customer service. A short video clip describing the functionalities of Service First is attached as Supplemental Exhibit JSW-1.

Also, reports are created and made available so that outside parties, such as the City of Chattanooga, can access the ORCOM System via a secure link from the Internet to obtain sewer billings reports, cash collection information by account number and date of payment. This enables them to see what customers have been billed and collections by account number. Reports can also be generated for Hamilton County Wastewater Authority or for East Ridge garbage collections. We can also obtain reports that give us the service metrics data that we report to the TRA and CAPD, and that are obtained from the work performed by the Service First System and recaptured in the E-CIS.

Q. Does E-CIS provide the customers and Tennessee American with additional information regarding what may be occurring in their neighborhood or their service area which can help identify service needs?

A. Absolutely. One example would be if a customer calls and says they are experiencing low water pressure, and we receive other calls for the same area, we are often able to see a pattern in an area which may indicate that there is a line break in a neighborhood. We are able to then enter an Alert Order in E-CIS which can then be attached to an automated message in the Call Center that will tell our customers, when they call in, about that service issue or any other service issues we may be experiencing in their neighborhood or about any construction work we may be doing in their area. This adds a great deal of value to the customer's experience because they can get that information any time, day or night by dialing our toll-free number. We can also provide messages for our customers when they call to make sure they are aware, in advance, of

our distribution system flushing plans and to discuss any aspect of service that our customer may want to discuss.

Q. Please describe how E-CIS and the Call Center add value when Tennessee American customers call with an emergency.

A. E-CIS and the Call Center add tremendous value because when our customers call, any time, day or night, with an emergency like a broken pipe in their basement, the Call Center can escalate that call to the Time Critical Group who can contact on-call supervisors to dispatch a Field Service Representative to their home to shut off their water, or if there is a leak in the street, the Call Center can call a repair crew to repair a main break on an emergency basis, and the crew supervisor can call the customer directly to advise that we are responding and to produce the expected time of arrival. I am aware of situations in other service areas, one occurring while I was operations manager in Virginia, where in the aftermath of Hurricane Isabel in September 2003, a large number of water supplies were struck and 80% of the area was without power. During the day following the hurricane, over 5000 customers contacted the Call Center to find out whether or not they, as Virginia American customers, would be impacted by the devastation -- and they were. The Call Center continued to take a very high volume of calls throughout the weekend, assisting customers with how to make provisions for the boil water advisory if they were fortunate enough to have electric services restored, or in the alternative, where they could go to pick up bottled water, ice, and other provisions in their local community until utility services were restored. Many customers were without power for up to 10 days to two weeks. However, the Call Center continued to support the

local community. If this type of natural disaster were to occur in Chattanooga and there was only the local office to handle the calls of our customers, we would almost certainly not be able to answer all of the calls, we would not be in a position to adequately staff around the clock to accept all of those calls, and it would be doubtful that the phone system would be able to function if a power outage occurred at the Broad Street office.

The Call Center is able to bring in additional resources during a crisis, to answer the calls, and to provide the additional staffing and support to answer and respond to customers' questions around the clock. We believe this meets the customer service expectation that our customers have of Tennessee American. As I have stated in both my direct and rebuttal testimony, Tennessee American and American Water Works Service Company are linked together, and the customers of Tennessee American are provided great service -- they have said, in the customer service surveys, that they are satisfied or very satisfied with the service we provide. 88.9% of surveyed customers are pleased with the service, and our customers have come to expect that level of service.

Q. What was the Company's approach to Customer Service prior to the introduction of E-CIS, and describe how E-CIS provides any benefits or added value for Tennessee American customers?

A. E-CIS adds many benefits that we previously were not able to provide to our customers. Before E-CIS, we could not provide a customer their balance on a real-time basis, because the old system processed all payments as a batch process, so if a customer made a payment by mail, we would not know about that payment until one to four days

later. E-CIS also provides the benefits of reporting service metrics, such as collecting data by employee on the quantity of work they performed by day, by week, or by month. Before E-CIS, this type of information required the company to manually tabulate the work performed and estimate the time that was needed to complete that work. It was difficult to calculate the full utilization of our employees' work effort because we could only estimate the average time that it took to complete the tasks involved and then calculate the workforce requirements. Prior to E-CIS, we could only schedule one type of service order for any customer at a time, because the old system would not allow more than one pending order for any customer. A pending service order had to be completed before another service order could be scheduled. E-CIS also allows us to collect all of the information about the number of service orders, to utilize an appointment-setting process for our customers, and to utilize a scheduling tool to determine the number of orders assigned to each employee. E-CIS also allows for multiple service orders or tasks to be performed at a customer's address during the same visit.

The service metrics and personnel management functions are aspects of E-CIS that had to be performed manually prior to E-CIS. Any reports that were needed to query the system had to be written by an ITS support employee in order to output data in summary reports. Because data is streamlined in the E-CIS system, we have developed reports that are available for managers to select from a large menu of reports that can be run on demand to assist each manager and supervisor in reviewing the performance of their employees to determine the type of work that has been scheduled and to determine whether we are meeting our customers' needs. Reports also can be selected that provide the current

status of work completed to-date. We can also run summary reports by employee or by service order type to see how many of any type of service order our customers have asked us to perform, how many orders the representative has been issued, and the total number of orders completed. We can also review how much time it takes our employees to travel between orders on average, we can monitor how long they have been at an address, and, if needed, we can reassign work. For example, if a representative is taking longer than expected to assist a customer, E-CIS allows for the shifting of work to employees working in adjacent zones so that our customer's appointment is still met, we can finish working with the customer who needed more of our time, and our other customers are not inconvenienced by the longer-than-expected service call. In those cases, where an employee has been at an address for longer than expected, we can monitor where they are, contact them to see that they are safe or if they are experiencing equipment or vehicle problems. All of this assures us that the employee's safety and health has not been compromised. In short, the E-CIS functionalities have enabled Tennessee American to achieve an on-time service call completion record of 99.75%.

Further, E-CIS provides data directly to the Service First laptop computing equipment through a wireless interface to the vehicle. Because E-CIS is able to convey data from the AS400 to our worker in the field in real-time, our workers can stay in their work areas and achieve the maximum productivity throughout their day. There are no paper orders to get misplaced or misfiled, and the employee's supervisor or other support staff can monitor the workload to that worker. E-CIS provides us with a great link to service our customers because the interface also allows for uploading account information for meter

reading to a handheld computer, a system known as Equinox that can be used to read in all types of weather conditions. Once the meter reading is obtained for the customer for that route the readings and data are downloaded to the AS400 mainframe computer, and then the billing group at the Call Center reviews the meter readings to determine if the customer's water usage is within the normal range compared to historical usage, and if necessary, can generate a service order in E-CIS to our worker to re-read the meter. Examples of the types of orders and volume of orders were provided by the Company in TN-COC-01-Q017-ATTACHMENT. If follow-up work is needed by a customer or by the Call Center with regard to bill preparation, our Field Service Representative will be dispatched back to the house if it appears no water was used the previous month (zero usage) or if it appears that there is a low or high consumption (HI/LOW) possibly indicating the customer has a leak beyond the water meter or within the home. We can, at the same time, create an order to have the meter pulled for testing, or to replace the meter if it is due to be changed for length-of-service considerations. These additional options were not available to be bundled in the former IBM software known as EDIS (Electronic Data Inquiry System).

Q. What does the American Water Works Service Company currently bill you for in relation to the E-CIS system?

A. Tennessee American is billed for Information Technology Services (ITS) which include activities related to maintaining and servicing E-CIS.

Q. How do you associate the ITS costs with the delivered service that Tennessee American receives from American Water Works Service Company?

A. These services appear under the ITS function. The ITS functional group provides technical and operational support for the E-CIS mainframe computer and the software, the JDE Financial Software, and supports the individual desktop and laptop computer users across the business. I evaluate the ITS function in the same way that I evaluate other services provided by the service company, AWWSC. For example, as I described in my rebuttal testimony regarding management services that Tennessee American Water Company receives from American Water Works Service Company, a monthly billing from AWWSC is received for the actual services delivered to Tennessee American for that month. These reports enable me to drill down into an enormous amount of data to assess what services are being provided – such as IT Support services -- by who, when, where, etc. Supplemental Exhibit JSW-2 is a power point that illustrates the wealth of information that enables Tennessee American supervisors and managers to evaluate the services and functions being provided to Tennessee American by the Service Company so that we may exercise accountability and ensure that service company charges are actually being delivered, are needed, and provide reasonable value to Tennessee American customers.

As part of the checks and balances to ensure that ITS-related costs, which include E-CIS costs, are warranted, it is my job to review the billing for each month and compare that to the budget to see if the costs are reasonable. I do this for every function area for which the Service Company provides services to Tennessee American. We compare billings for

each such functional area: Legal Services, Accounting Services, Administrative Services, IT Services, Call Center Services, Supply Chain, Legal Services, Finance Services, Water Quality (including the Belleville Central Lab), Engineering, etc. to the budget for that functional area. We then can continue to drill down into each functional group and see the service company employees by functional group, by business unit, by location, or for each amount charged, and then even drill down to see each service company employee, by day or a summary by pay period of the function to see what account they charge their time to, then into their time entry to determine the pay code (regular, vacation, sick, training, etc.). We can determine, by looking at the formula, what tasks they worked on and how many hours were charged to each task. By the names involved, we can also tell whether these are the service company employees normally assigned to perform work for Tennessee American.

We can view, by the functional area, how the hours charged to Tennessee American are associated to the work performed by AWWSC employees that are working directly for Tennessee American, or whether they are assigning time directly to a Tennessee American construction project or working on a regional or AWW system project that benefits Tennessee American and its customers.

Each time we receive a bill from the AWWSC, I take the opportunity to scrutinize each of the charges, and we can challenge any charge for an employee of the Service Company. When we have a question we can call the service company employee who made the charge and get more details about the amount of work they performed, or

discuss with their supervisor, or go to the functional lead, or the manager or director of the Shared Service Center or the Call Center or the Belleville Lab to ask questions, and obtain an explanation for the charges. If an individual has charged Tennessee American incorrectly, we can make and have successfully made requests to have those charges be charged back to the company to which they belong.

Just as we can cause any unwarranted charges to be removed from Tennessee American's bill for functions like Accounting Services or Legal Services, we can also do the same with ITS charges to Tennessee American. As the end user and for the benefit of our customers in Tennessee, we can make sure that Tennessee American is not being overcharged by the Service Company, and that Tennessee American is being charged for only that which benefits our customers. For example, just as I can and do determine whether the Service Company is closing Tennessee American's monthly books (accounting), handling routine contract and labor negotiations (Legal), obtaining low cost capital (executive functions), implementing efficiency and safety programs (Operational Risk), providing complex water quality testing and training for our lab (Belleville lab), etc, I can and do evaluate whether Tennessee American is receiving services and value from E-CIS. If E-CIS was not providing needed and reasonable services I would know about it quickly from customers, employees and through my own observations because E-CIS is the foundation on which so much of our customer support infrastructure is built.

Q. Can you describe the type of bill that E-CIS generates for Tennessee American residential customers.

A. Yes, attached as Supplemental Exhibit JSW-3 is an example of an E-CIS-generated bill for a residential customer that uses approximately an average amount of water. Note that the only charges on the bill that relate to Tennessee American's rate request are the actual water charges ($15.41). Other charges that appear include sewer services ($18.18), state and local taxes ($1.43), East Ridge garbage ($10.00), and the customer protection water line ($5.50). This is an example of a typical water bill generated by E-CIS. The E-CIS-generated bill provides the customer with far more information and detail than was previously available. E-CIS also enables customers to receive a single bill for multiple services that they receive. This is a customer convenience that helps reduce waste.

Q. Does E-CIS provide any information for other external customers of Tennessee American or other third parties that would not otherwise be easily accessible?

A. As I have discussed previously in the Service Metrics Reporting to the TRA and the CAPD to which Tennessee American agreed in the last case, it would not be possible to report these metrics without E-CIS. One report that we provide monthly to the TRA and CAPD is the Customer Service Scorecard. This report is available to be accessed by Tennessee American at any point in time to review the progress toward meeting goals that have been established and agreed to by the Call Center. This report is retained and provided following the end of the month for my review to determine the level of service provided by the Call Center. These are the Call Center metrics that we expect for our

Tennessee customers, and if these are not satisfactory we will contact the Manager or Director at the Call Center to make sure that customers are receiving great service. We also can review the amount of work accomplished at the Call Center, and we can report that work level to the TRA and CAPD in a very specific format which is easily reviewed. In the previous rate case, filed in 2004, we did not have information easily retrievable regarding service metrics and call handling, because E-CIS was not completed until mid-2003 for Tennessee, nor were calls for Tennessee American customers being routed to the Call Center until July 2003. In order to develop any statistical analysis, we would have to have local operating personnel review paper records and local phone records manually and attempt to analyze and quantify this information to respond to data requests, a very time consuming process. Gathering data from the old EDIS system, such as estimated meter readings, required the company to go back through printouts or request queries written by one of two ITS support personnel.

The City of Chattanooga benefits greatly from the implementation of E-CIS as regards the Sewer Billing Data and billing that Tennessee American performs on their behalf. E-CIS makes it possible for Tennessee American to request a report which contains the information the City would like to have about its sewer customers in a format such as an Excel Spreadsheet. The sewer service billing and collection is a cost-effective service for the City of Chattanooga, partly because it is not required to duplicate the service for the sewer customers. Hamilton County Wastewater Authority, City of Red Bank, Rossville, Catoosa County, Georgia all contract with Tennessee American to provide billing and collections for sewer customers. In some municipalities such as East Ridge, garbage

service is billed and collected by Tennessee American on the water bill as a convenience to their residents. All of these benefits are advantageous and bring value to Tennessee American customers, the City of Chattanooga, and the other municipalities and counties within Tennessee American's service territory that are Tennessee American customers. The services are beneficial, convenient, and cost-effective for our customers because they prevent waste and duplication which would be occurring if each municipality had to operate its own billing system independent of the E-CIS system.

Q. Based on your experience, could Tennessee American afford to implement the service functions provided by E-CIS on its own?

A. No. A sophisticated computer system like E-CIS that is custom-designed for a water utility is almost certainly too expensive for Tennessee American to buy, customize, implement, and maintain on its own.

Q. Mr. Watson does this conclude your testimony?

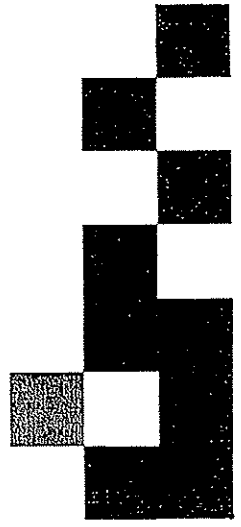
A. At this time, it does. However, I respectfully request the opportunity to respond to any further late-filed testimony or exhibits that may be filed by the CAPD or others.

American Water

Service Billing Rewrite

File Structure and Reporting

RWE GROUP



Supplemental Exhibit JSW-2

Service Co Reporting
Table of Contents

American Water

RWE GROUP

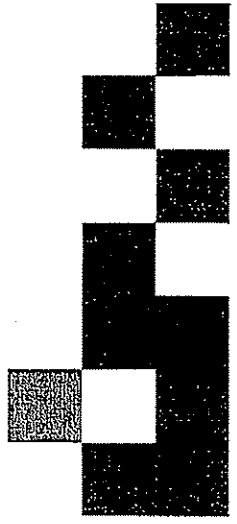
American Water

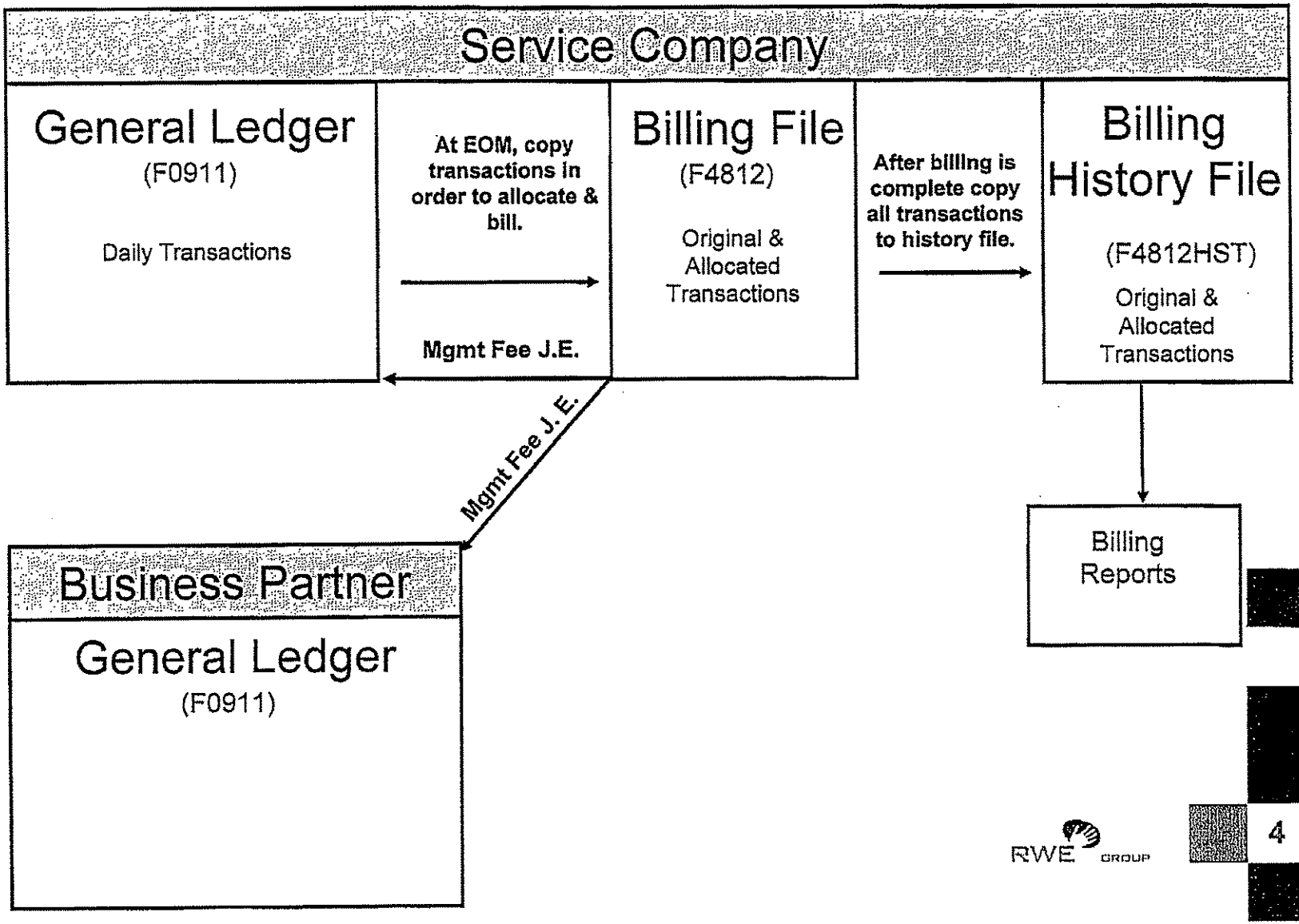
Service Company Accounting Overview

Section 1:

Process and File Structure

RWE GROUP




American Water
Service Company
General Ledger
(F0911)
Daily Transactions
At EOM, copy transactions in order to allocate & bill.
Mgmt Fee J.E.
Billing File
(F4812)
Original & Allocated Transactions
After billing is complete copy all transactions to history file.
Billing History File
(F4812HST)
Original & Allocated Transactions
Mgmt Fee J.E.
Billing Reports
Business Partner
General Ledger
(F0911)
RWE GROUP
4

American Water

Service Company Locations

Each location consists of Business Units (Depts.)

For example:
Voorhees Finance= 032007
Voorhees HR= 032018

Voorhees 0320	**Shared Svc Ctr** 0325	**Western Region** 0330
Central Region 0335	**Alton Call Ctr** 0340	**Belleville Lab** 0345
Southeast Region 0350	**Northeast Region** 0365	**Pensacola Call Ctr** 0370

Allocating Types of Charges (below is a sample list, not a complete list of possible charges)

- Basic Service (non-overhead):
  - Service Payroll (non-support)
  - Invoices
  - P-Card
  - Journal Entries

  Use formula to direct charge a Business Partner or allocate to multiple BPs.

- Overhead
  - Support Payroll
  - Utility Invoices
  - Payroll Benefits
  - Depr J.E.'s

  For the current period, all overhead for a location should be billed in proration to how the Service Payroll is billed for the location.

Location

RWE GROUP

Overhead

American Water

- Overhead charges are not billed out based upon a fixed percentage. Rather, they are billed out based upon how service labor was billed for the location for the current period.

For example:
If the SSC billed labor charges for the month of January as follows:

Co 5	$100	10%
Co 9	$100	10%
Co 10	$200	20%
Co 11	$300	30%
Co 12	$300	30%
Total	$1,000	100%

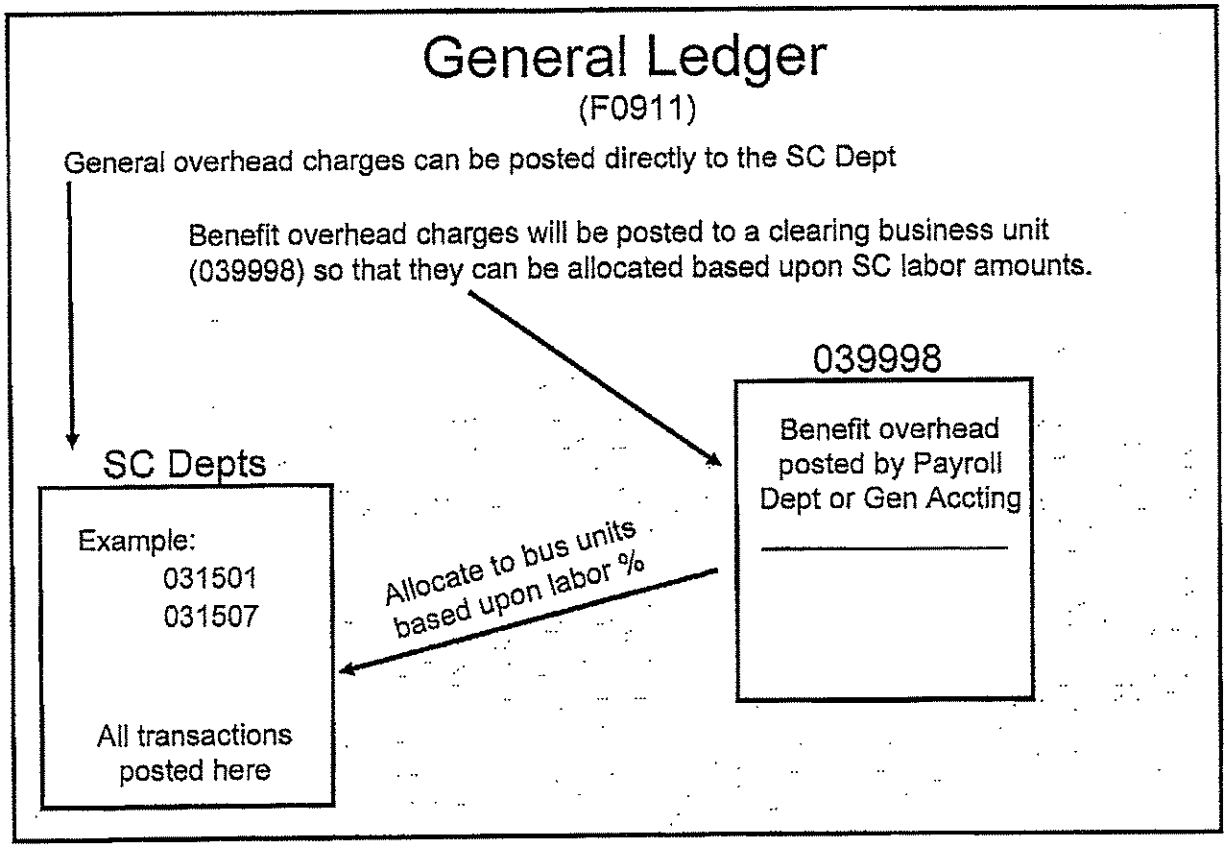
SSC's $500 of overhead charges should bill in the same prorata.

Co 5	$50	10%
Co 9	$50	10%
Co 10	$100	20%
Co 11	$150	30%
Co 12	$150	30%
Total	$500	100%

RWE GROUP

Overhead

- Two formulas have been created in the formula file to use for charging overhead transactions.
  - 999999 - General Overhead (bldg and support labor)
  - 888888 – Labor Benefit Overhead



Detail Transactions in Billing File

The F4812 has BP& Mgmt Fee Acct, in addition to all of the fields from the F0911.

Service Co G/L (F0911)

- Daily transactions
- Allocate benefit overhead to business units
- General ledger closed
- Copy billable accounts to F4812

1

Billing File (F4812)

Original Transactions from F0911

Doc#	Doc type	B_unit.object.sub	Subldgr	Purpose	Amt	BP	Mgmt fee acct
001	T2	032005.501200.16	100074	xxxx	$100	ORIGINAL	[blank]
002	JE	032007.541000.16	999999	xxxx	$200	ORIGINAL	[blank]
003	T2	032007.501200.16	999999	xxxx	$300	ORIGINAL	[blank]
004	T2	032001.501200.16	999999	xxxx	$400	ORIGINAL	[blank]

2

Allocate formula transactions to BP's

Formula Allocated Transactions

Doc#	Doc type	B_unit.object.sub	Subldgr	Purpose	Amt	BP	Mgmt fee acct
001	T2	032005.501200.16	100074	xxxx	$90	18	180105.534600.16
001	T2	032005.501200.16	100074	xxxx	$10	38	380305.534600.16

3

Accumulate overhead transactions by bus unit

Accumulate Overhead Transactions

Doc#	Doc type	B_unit.object.sub	Subldgr	Purpose	Amt	BP	Mgmt fee acct
005	GO	032007.534999	999999		$500	ACCUMOVH	[blank]
006	GO	032001.534999	999999		$400	ACCUMOVH	[blank]

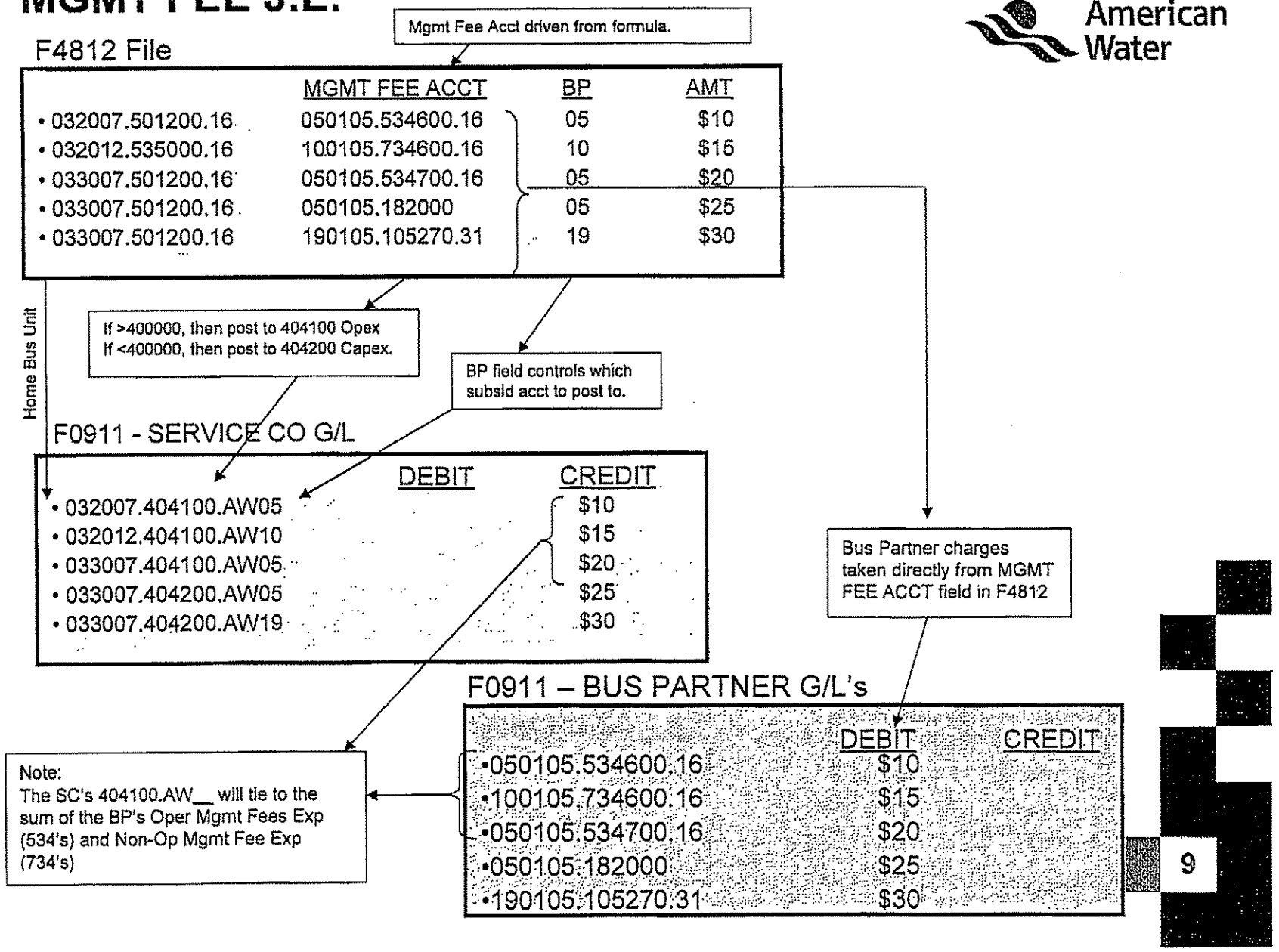
4

Allocate overhead transactions to BP's

Allocate Overhead Transactions

Doc#	Doc type	B_unit.object.sub	Subldgr	Purpose	Amt	BP	Mgmt fee acct
005	GO	032007.534999	999999		$450	18	180105.534600.16
005	GO	032007.534999	999999		$50	38	380305.534600.16
006	GO	032001.534999	999999		$360	18	180105.534600.16
006	GO	032001.534999	999999		$40	38	380305.534600.16

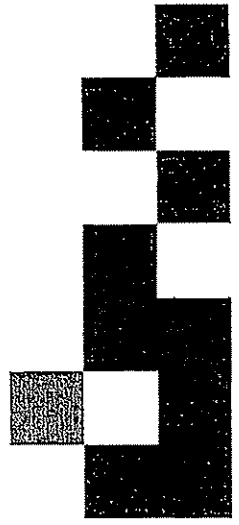
MGMT FEE J.E.


Mgmt Fee Acct driven from formula.
F4812 File
MGMT FEE ACCT
BP
AMT
• 032007.501200.16
050105.534600.16
05
$10
• 032012.535000.16
100105.734600.16
10
$15
• 033007.501200.16
050105.534700.16
05
$20
• 033007.501200.16
050105.182000
05
$25
• 033007.501200.16
190105.105270.31
19
$30
Home Bus Unit
If >400000, then post to 404100 Opex
If <400000, then post to 404200 Capex.
BP field controls which subsld acct to post to.
F0911 - SERVICE CO G/L
DEBIT
CREDIT
• 032007.404100.AW05
$10
• 032012.404100.AW10
$15
• 033007.404100.AW05
$20
• 033007.404200.AW05
$25
• 033007.404200.AW19
$30
Bus Partner charges taken directly from MGMT FEE ACCT field in F4812
F0911 – BUS PARTNER G/L's
DEBIT
CREDIT
•050105.534600.16
$10
•100105.734600.16
$15
•050105.534700.16
$20
•050105.182000
$25
•190105.105270.31
$30
Note:
The SC's 404100.AW__ will tie to the sum of the BP's Oper Mgmt Fees Exp (534's) and Non-Op Mgmt Fee Exp (734's)

American Water

Service Company Reporting

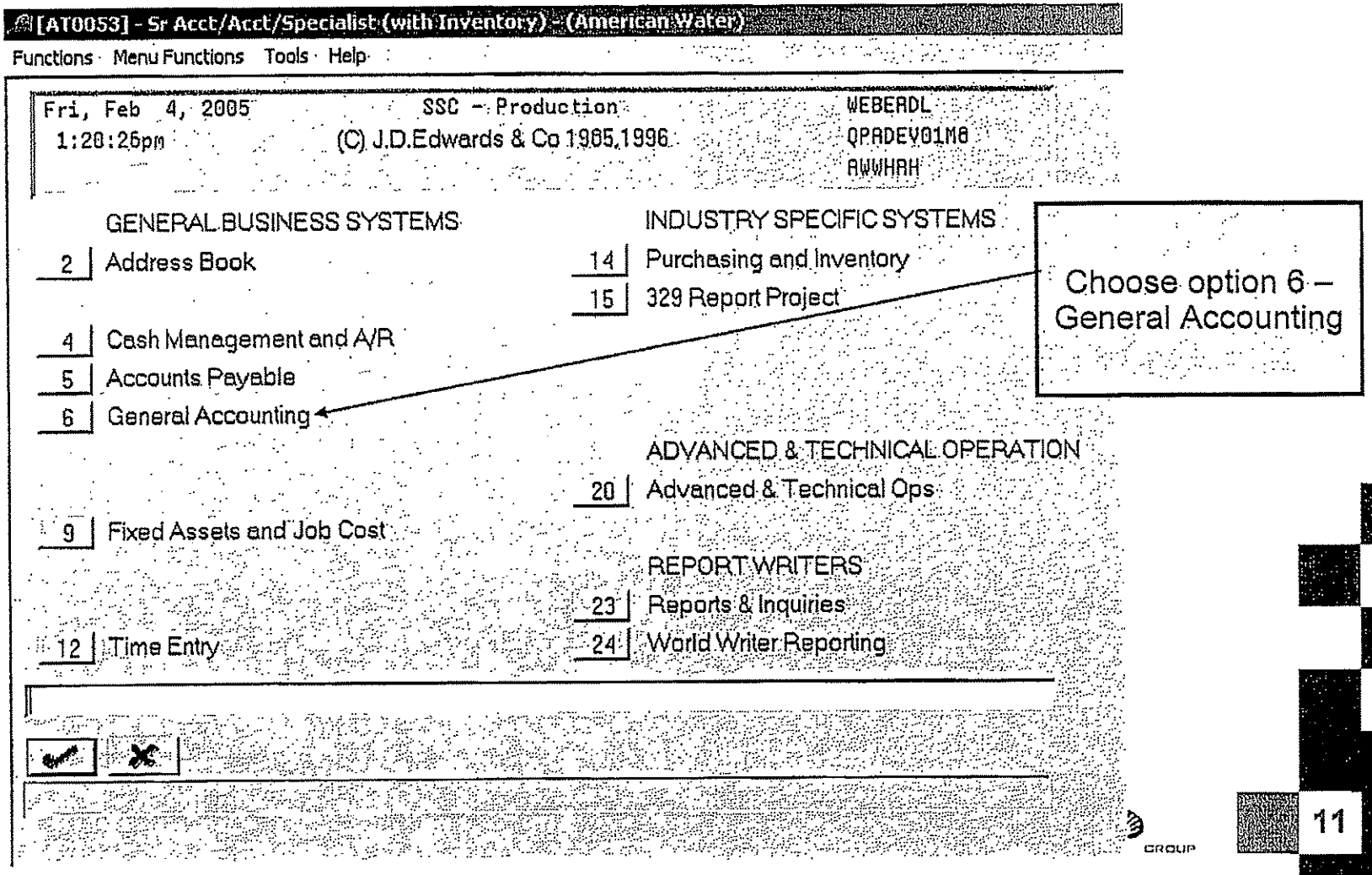
Section 2:
Reports & Inquiries from Service Company General Ledger



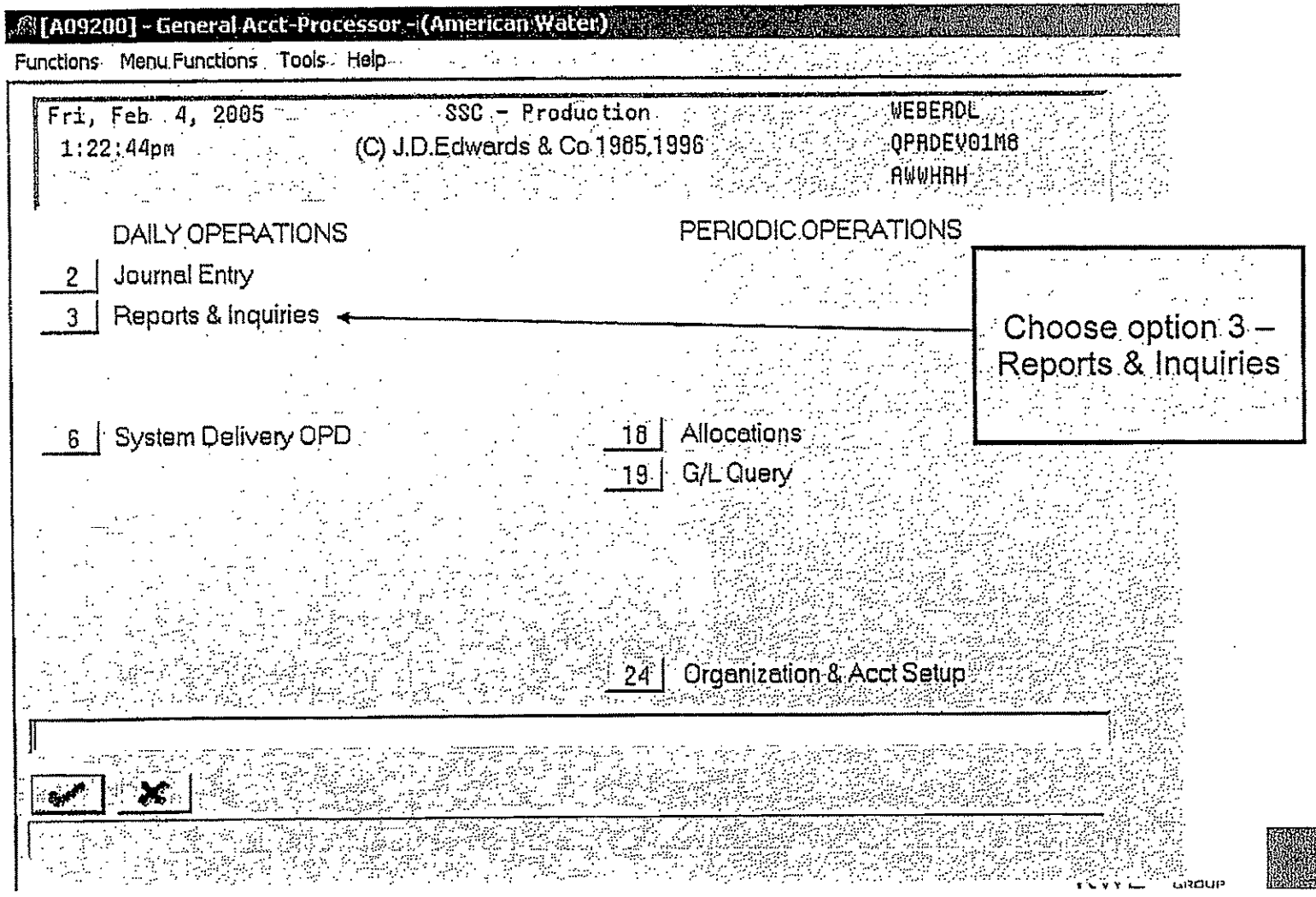
RWE group

Trial Balance by Business Unit

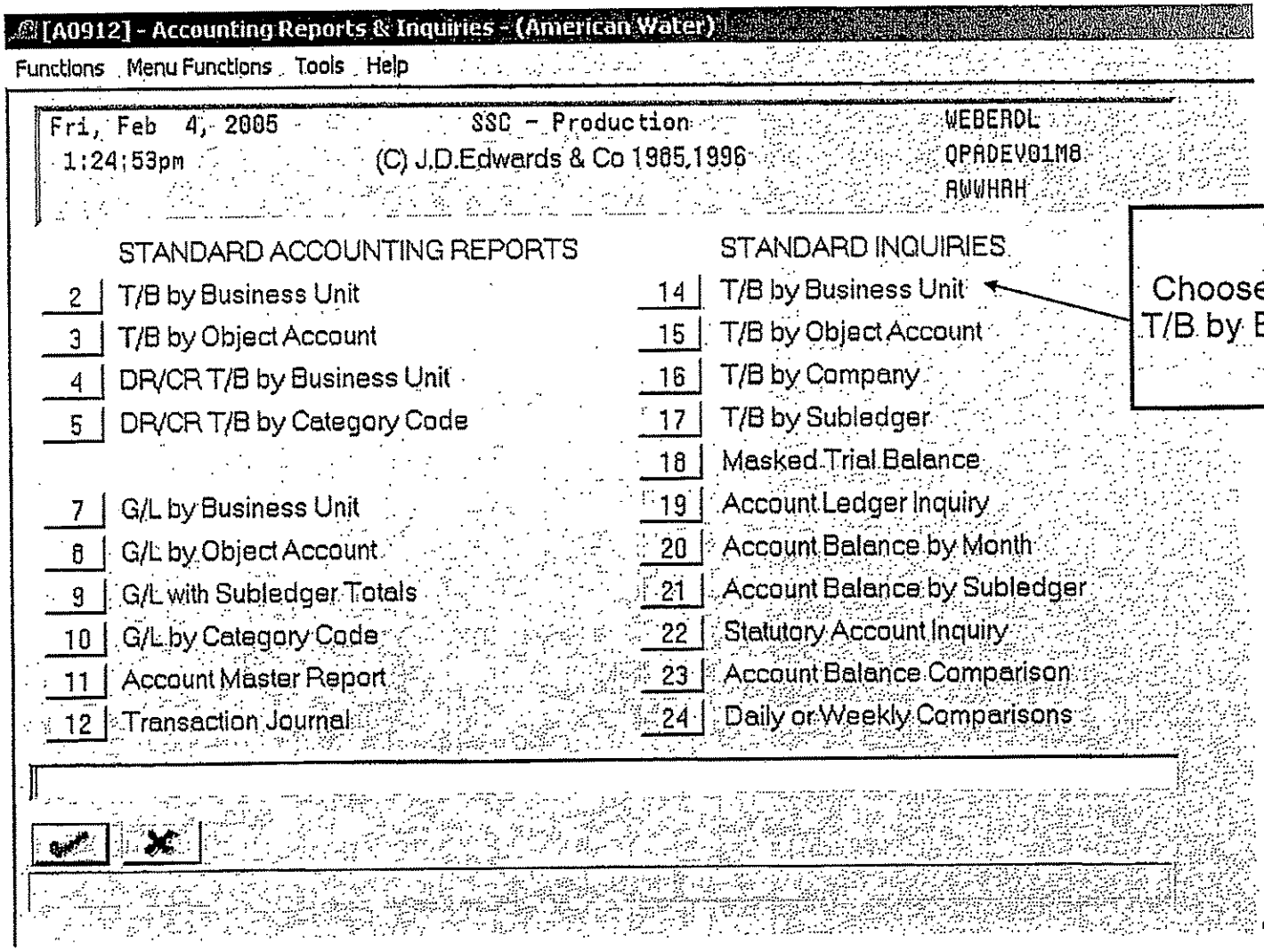
American Water



Trial Balance by Business Unit



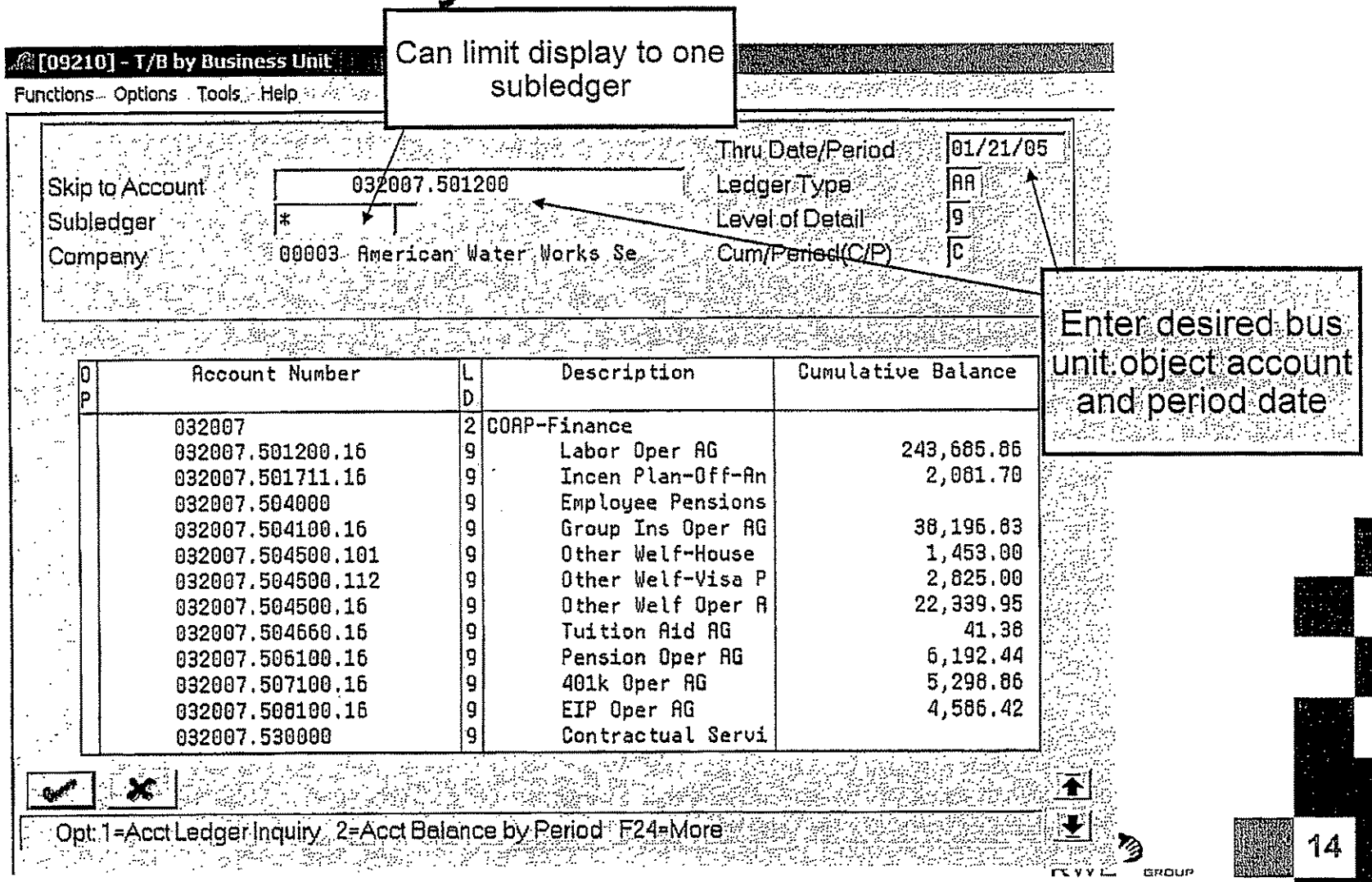
Trial Balance by Business Unit



Choose option 14 – T/B by Business Unit

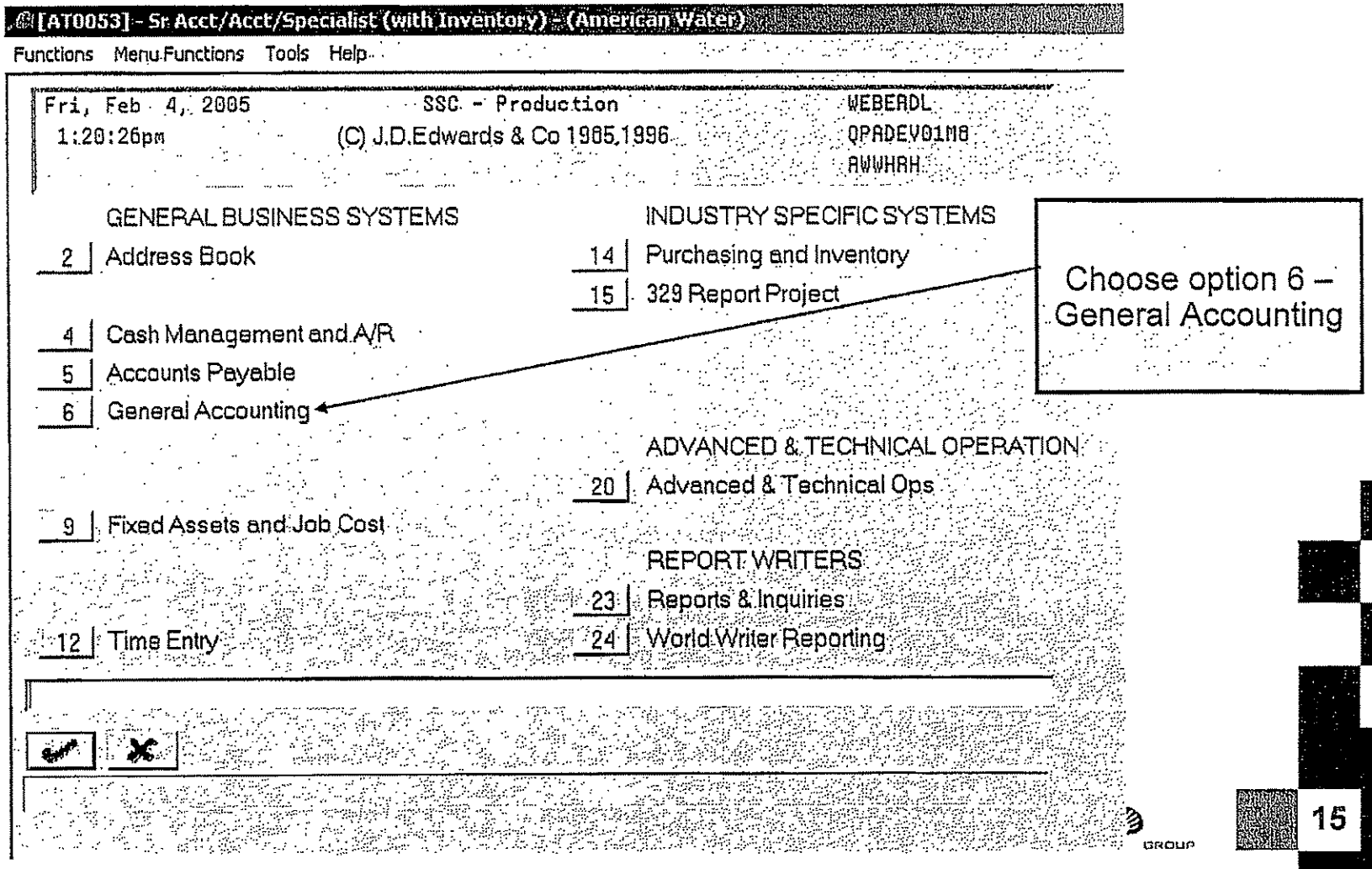
Trial Balance by Business Unit

American Water



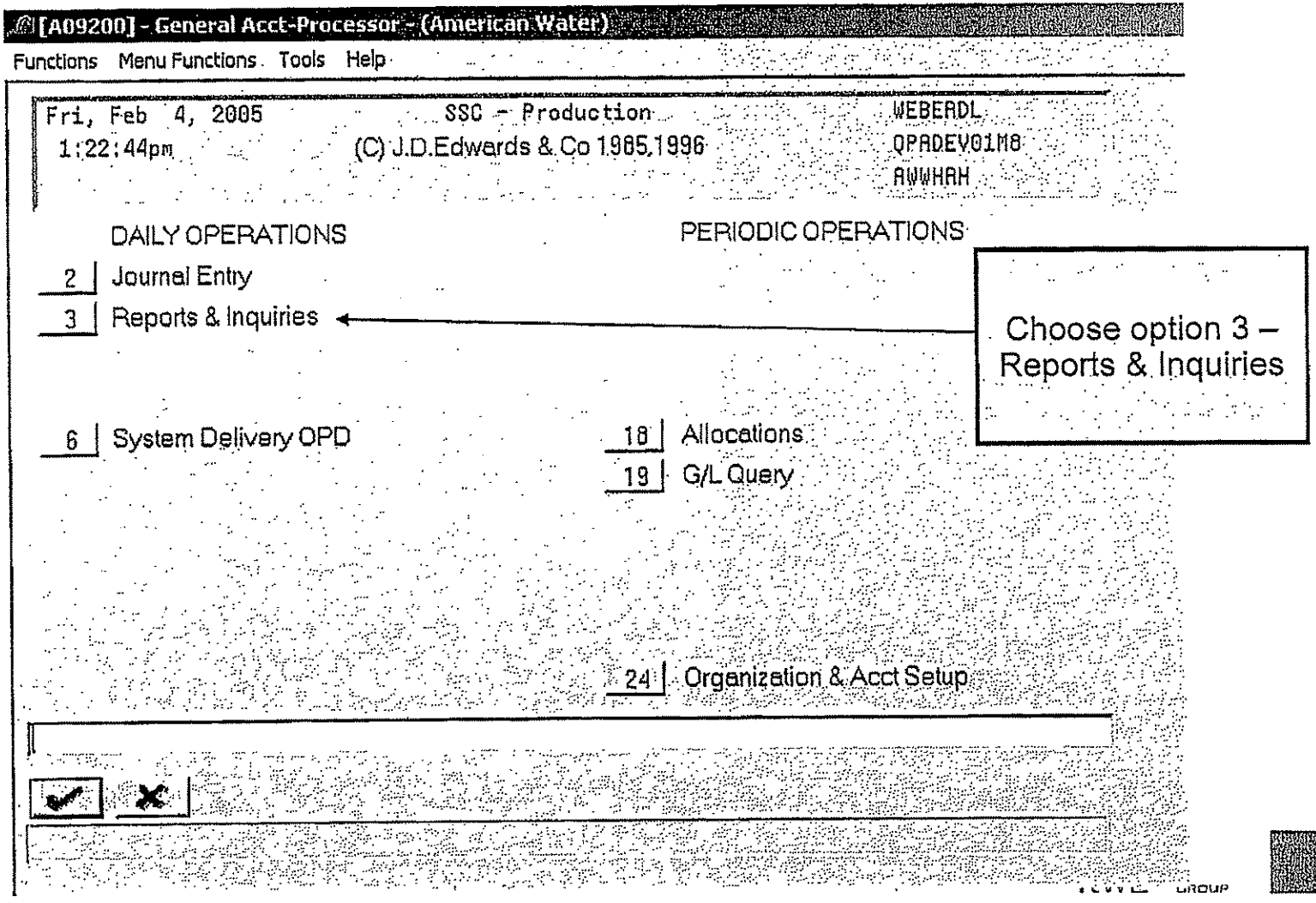
OP	Account Number	LD	Description	Cumulative Balance
	032007	2	CORP-Finance	
	032007.501200.16	9	Labor Oper AG	243,685.86
	032007.501711.16	9	Incen Plan-Off-An	2,061.70
	032007.504000	9	Employee Pensions	
	032007.504100.16	9	Group Ins Oper AG	38,196.83
	032007.504500.101	9	Other Welf-House	1,453.00
	032007.504500.112	9	Other Welf-Visa P	2,825.00
	032007.504500.16	9	Other Welf Oper A	22,339.95
	032007.504660.16	9	Tuition Aid AG	41.38
	032007.506100.16	9	Pension Oper AG	6,192.44
	032007.507100.16	9	401k Oper AG	5,298.86
	032007.508100.16	9	EIP Oper AG	4,586.42
	032007.530000	9	Contractual Servi	

Trial Balance by Subledger (Project)

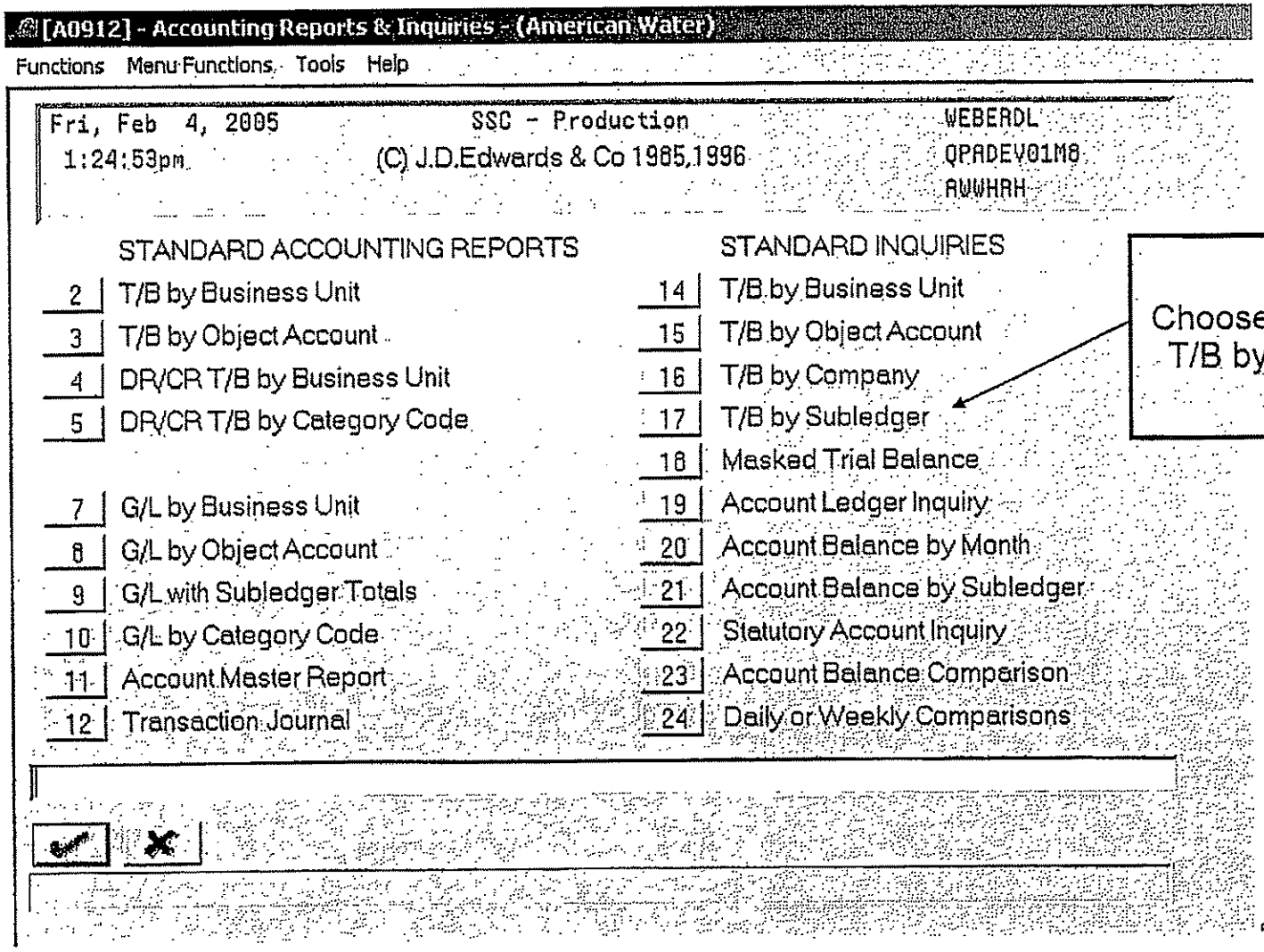


Trial Balance by Subledger (Project)

American Water



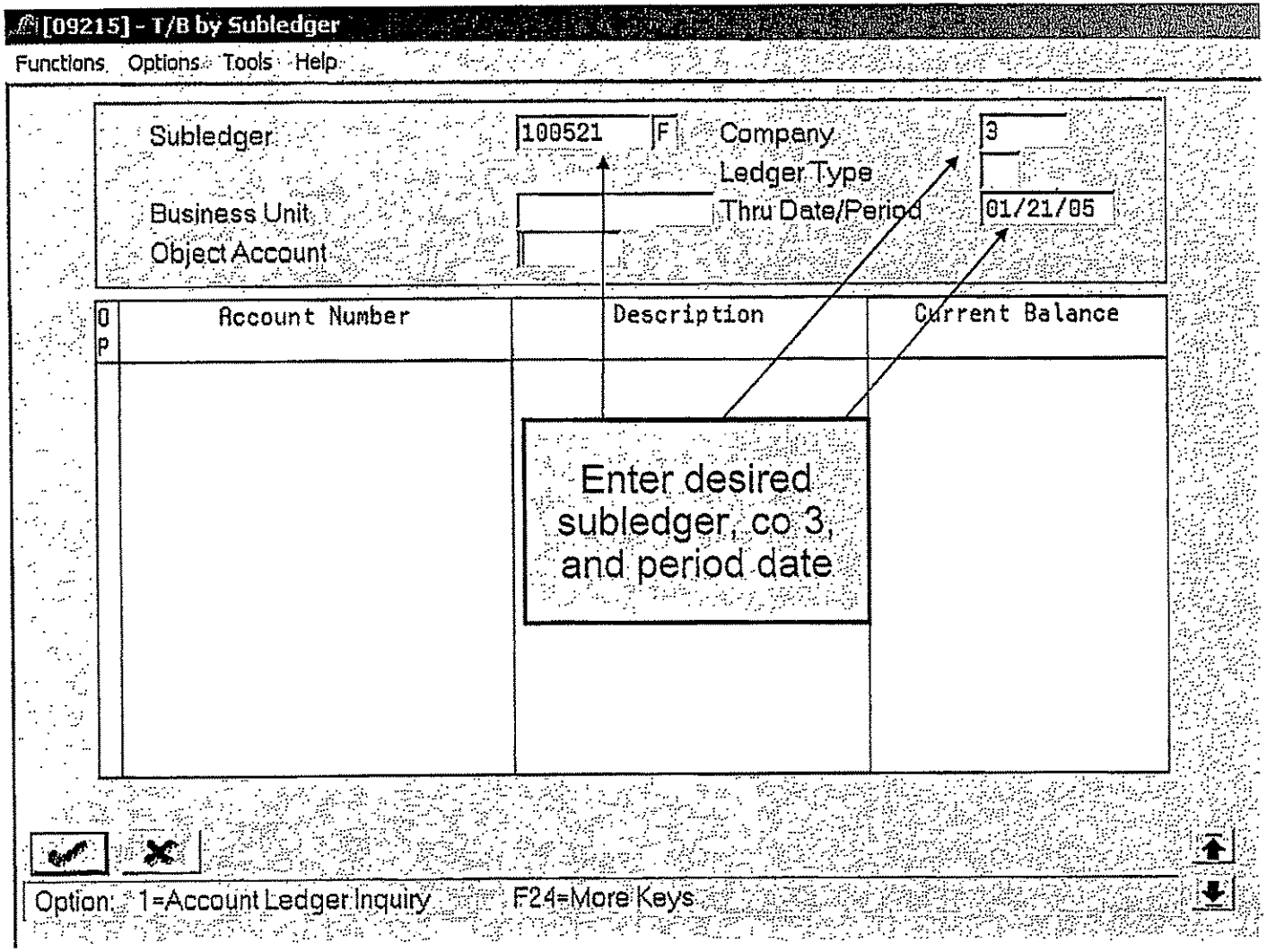
Trial Balance by Subledger (Project)



Choose option 17 – T/B by Subledger

Trial Balance by Subledger (Project)

American Water



Trial Balance by Subledger (Project)

American Water

Can limit display to one business unit or one account

Display shows account balances for each bus unit

[09215] - T/B by Subledger

Functions Options Tools Help

Subledger	100097 F	Company	00003
		Ledger Type	AA
Business Unit		Thru Date/Period	01/21/05
Object Account			

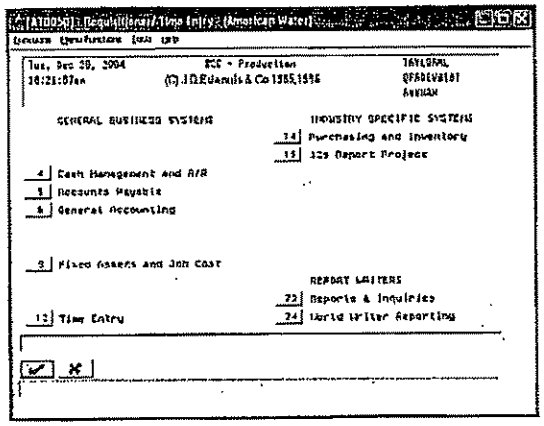
OP	Account Number	Description	Current Balance
	032079.501200.164119	Labor Op IT-Fin/Acctg	3,084.12
		Total Object Acct	3,084.12
		Total Business Unit	3,084.12
	032080.501200.164119	Labor Op IT-Fin/Acctg	11,262.12
		Total Object Acct	11,262.12
	032080.575340.16	Employee Expenses AG	
		Total Object Acct	
	032080.575350.16	Meals & Travel Deduct	28.62
		Total Object Acct	28.62
	032080.575351.16	Meals & Travel Nonded (Mt	28.62
		Total Object Acct	28.62
		Total Business Unit	11,319.36
	032081.501200.164119	Labor Op IT-Fin/Acctg	851.91
		Total Object Acct	851.91

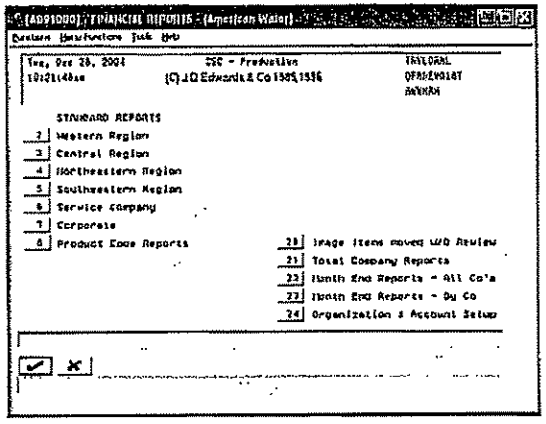
Option: 1=Account Ledger Inquiry F24=More Keys

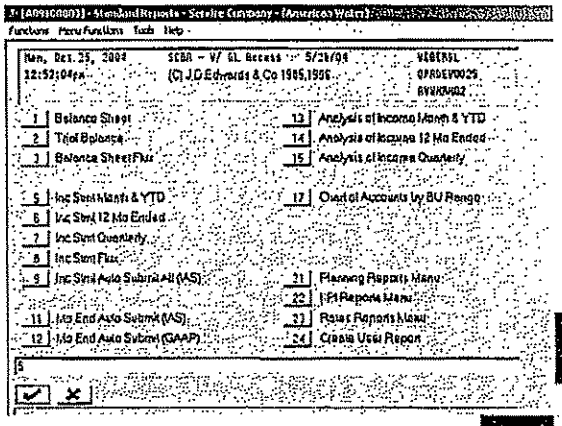
Standard Financial Reports (FASTR's)

American Water

- Service Company employees have the ability to run reports to analyze results, such as monthly expenses compared to budget.







Standard Reports Menu

Step 1:

Select **Option 23 – Reports & Inquiries**

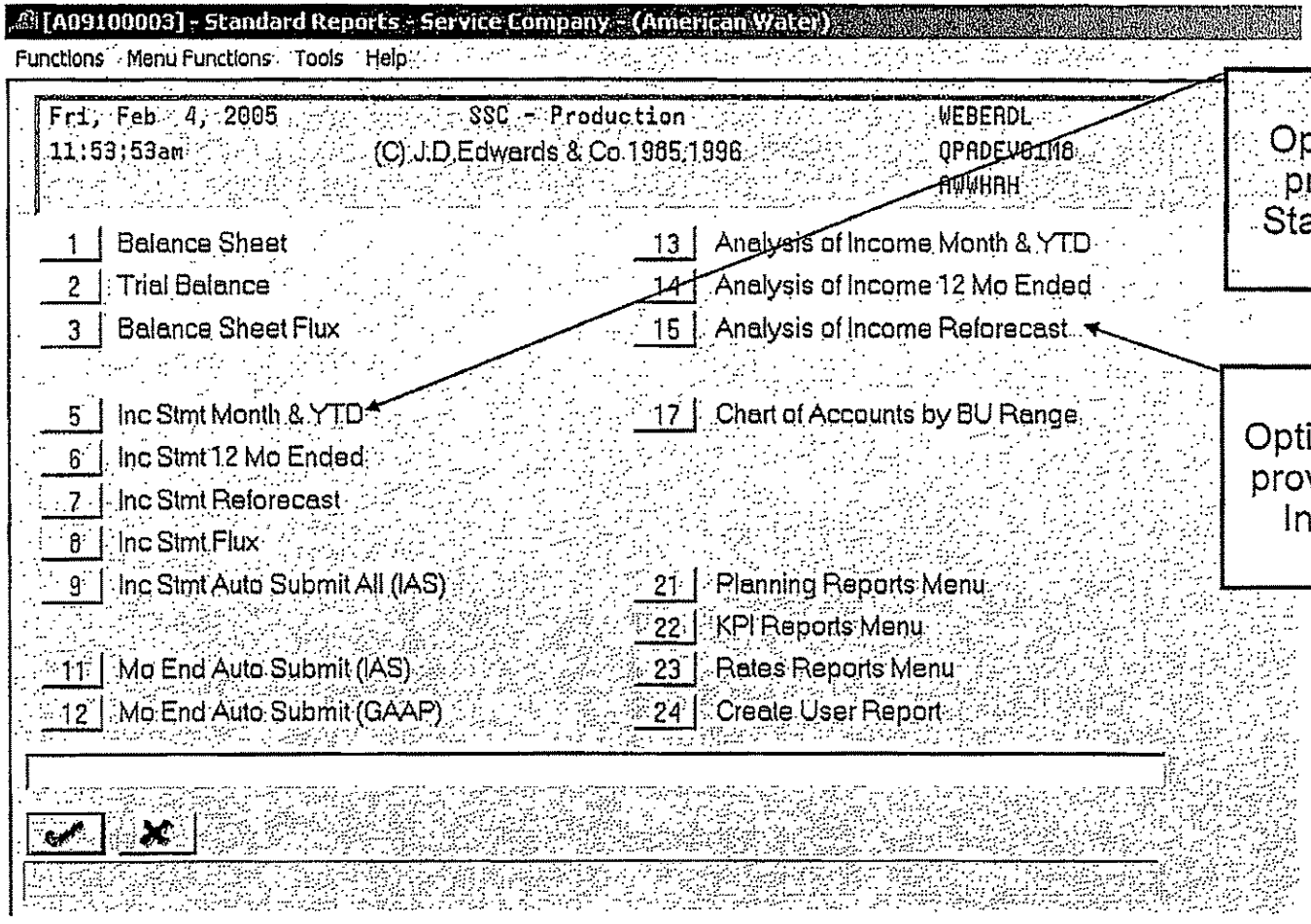
Step 2:

Select **Option 6 – Service Company**

RWE GROUP

Standard Reports

American Water



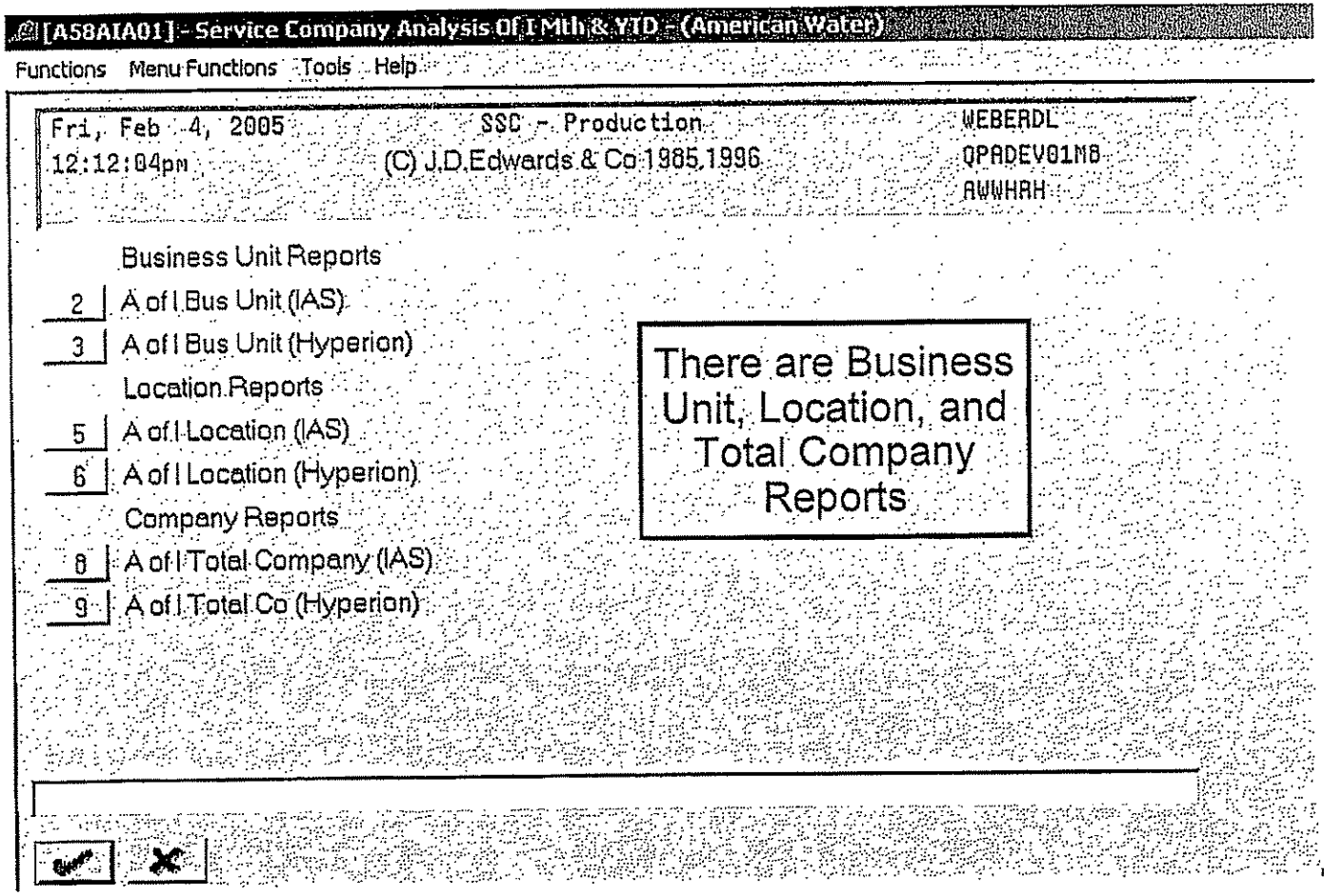
Options 5 – 8 will provide Income Statement reports

Options 13 – 15 will provide Analysis of Income reports

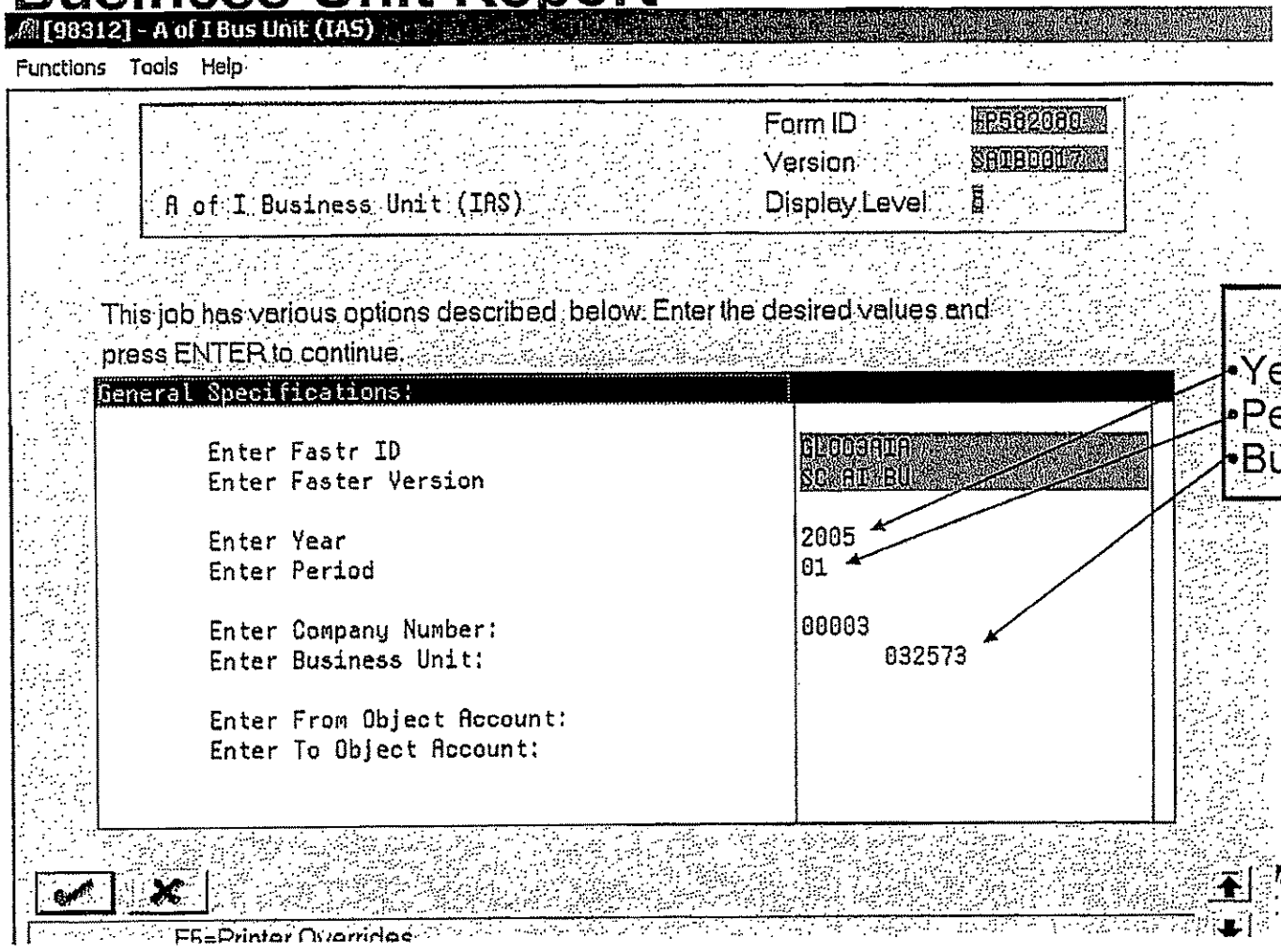
RWE GROUP

Standard Reports

Analysis of Income Example

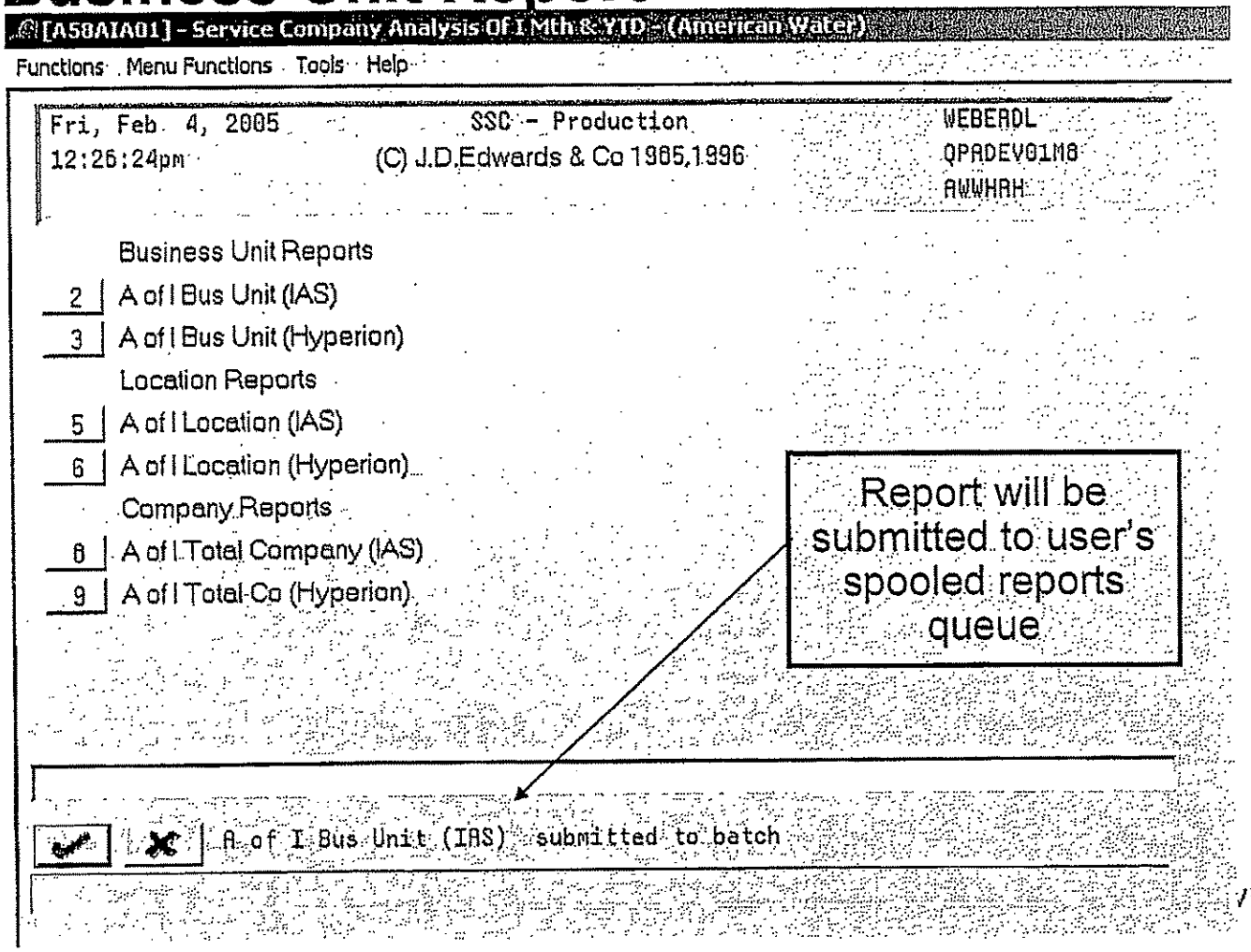


Standard Reports
Analysis of Income Example
Business Unit Report



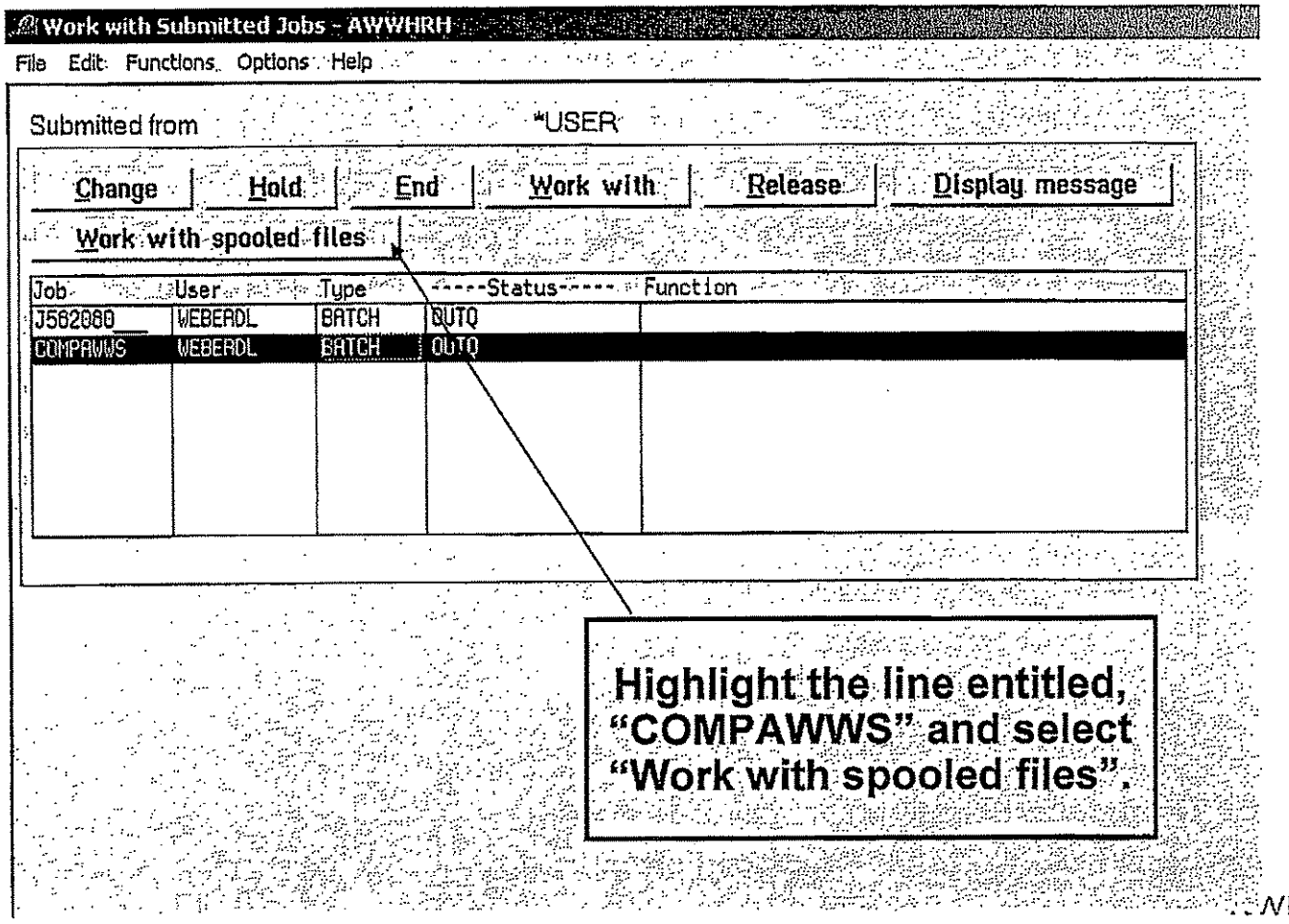
Change:
- Year
- Period
- Business Unit

Standard Reports
Analysis of Income Example
Business Unit Report



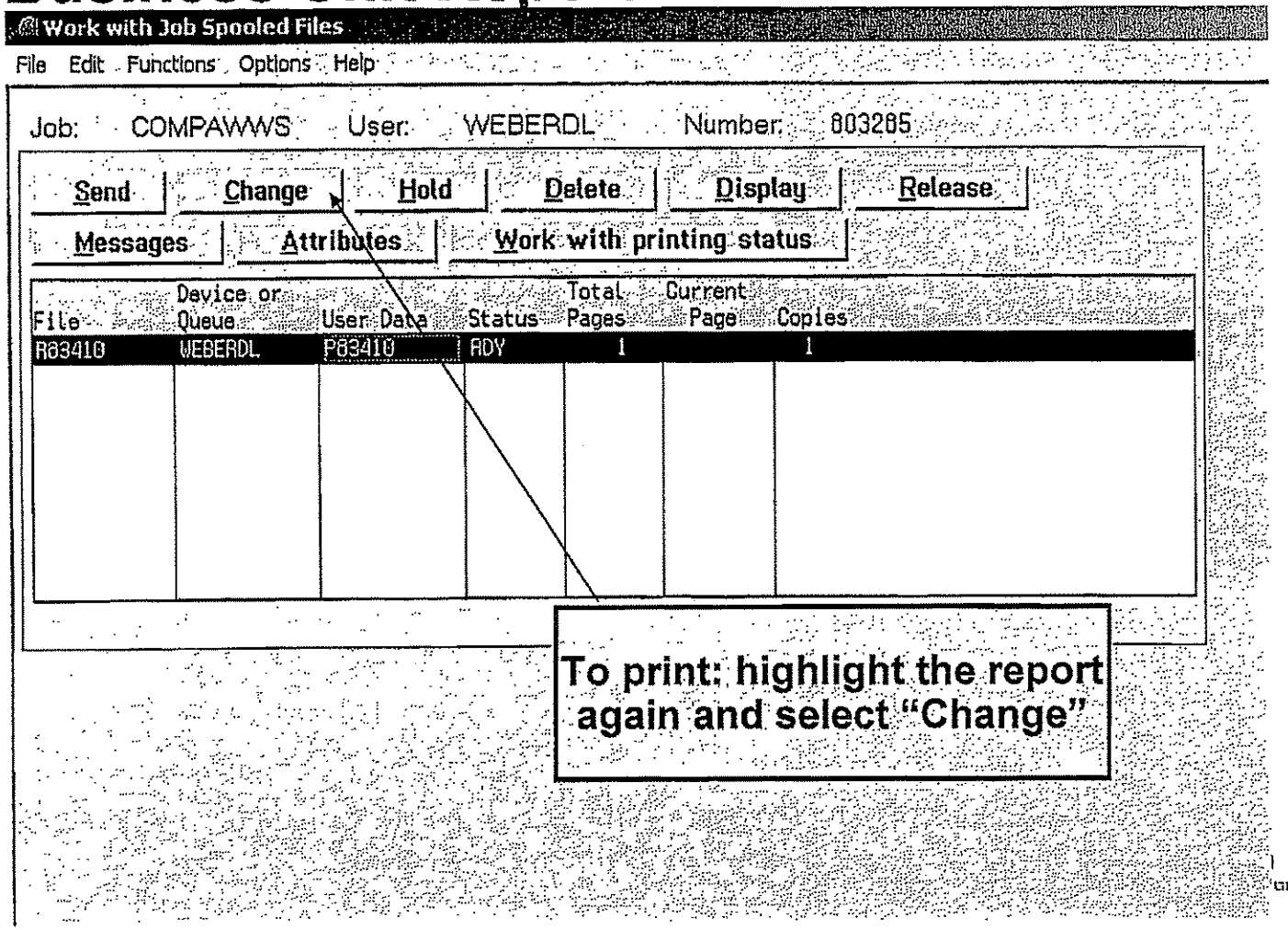
Standard Reports
Analysis of Income Example
Business Unit Report

American Water



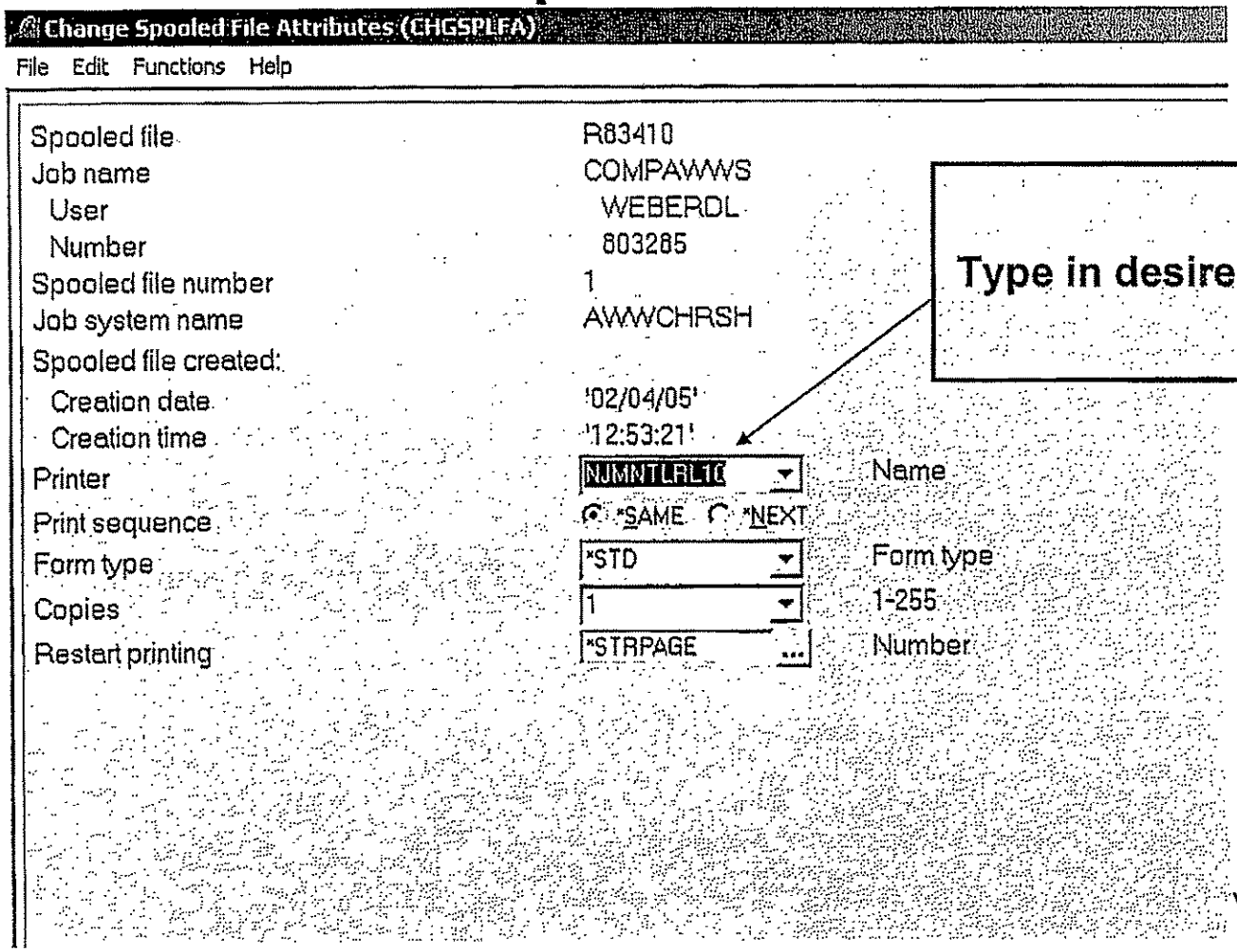
Standard Reports
Analysis of Income Example
Business Unit Report

American Water

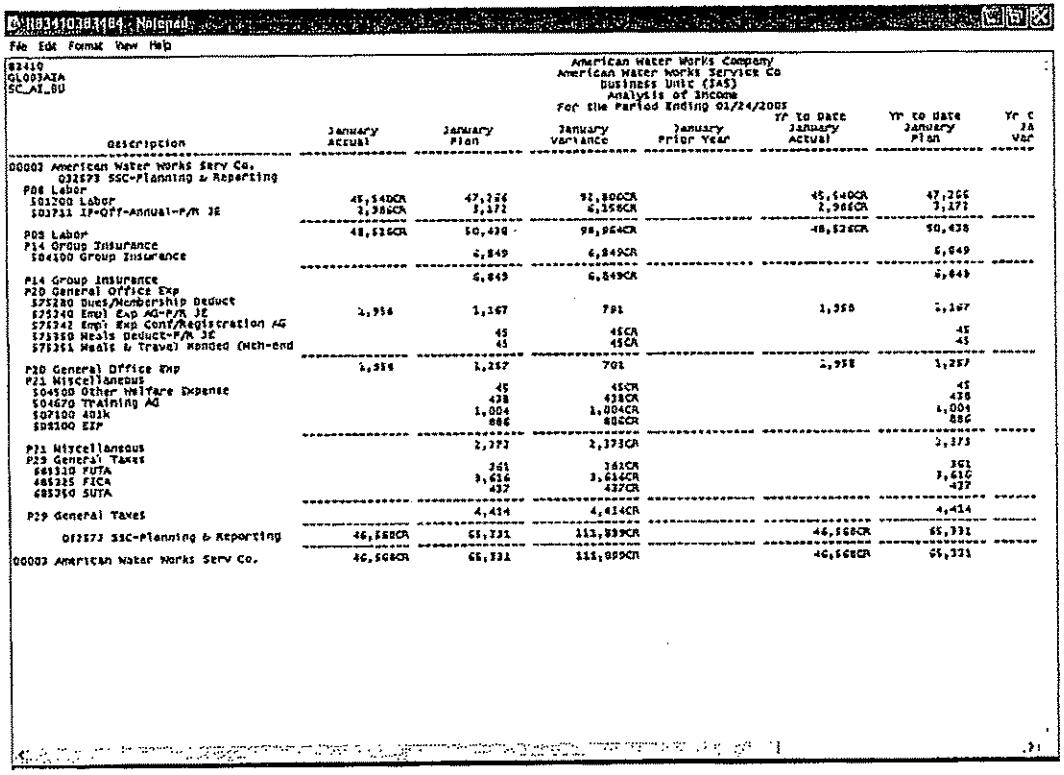


Standard Reports
Analysis of Income Example
Business Unit Report

American Water



Standard Reports
Analysis of Income Example
Business Unit Report



83410
GL003ATA
SC_AI_BU

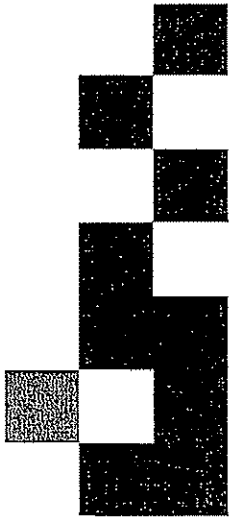
American Water Works Company
American Water Works Service Co
Business Unit (345)
Analysis of Income
For the Period Ending 01/24/2005

Description	January Actual	January Plan	January Variance	January Prior Year	Yr to Date January Actual	Yr to Date January Plan	Yr t JA Var
00003 American Water Works Serv Co.							
032573 SSC-Planning & Reporting							
P08 Labor							
501200 Labor	45,540CR	47,706	93,306CR		45,540CR	47,706	
501711 IP-Off-Annual-P/R JE	2,386CR	3,172	5,558CR		2,988CR	3,172	
P08 Labor	48,926CR	50,878	98,864CR		48,926CR	50,878	
P14 Group Insurance							
504100 Group Insurance		6,849	6,849CR			6,849	
P14 Group Insurance		6,849	6,849CR			6,849	
P20 General Office Exp							
575280 Dues/Membership Deduct							
575340 Empl Exp AG-P/R JE	1,956	1,167	791		1,956	1,167	
575342 Empl Exp Conf/Registration AG							
575350 Meals Deduct-P/R JE		45	45CR			45	
575351 Meals & Travel Rended (Mth-end		45	45CR			45	
P20 General Office Exp	1,956	1,257	701		1,956	1,257	
P21 Miscellaneous							
504500 Other Welfare Expense		45	45CR			45	
504670 Training AG		438	438CR			438	
507100 401k		1,004	1,004CR			1,004	
508100 ESP		886	886CR			886	
P21 Miscellaneous		2,373	2,373CR			2,373	
P29 General Taxes							
481110 FUTA		361	361CR			361	
485325 FICA		3,616	3,616CR			3,616	
485350 SUTA		437	437CR			437	
P29 General Taxes		4,414	4,414CR			4,414	
032573 SSC-Planning & Reporting	46,568CR	65,731	112,299CR		46,568CR	65,731	
00003 American Water Works Serv Co.	46,568CR	65,731	112,299CR		46,568CR	65,731	

American Water

Service Company Reporting

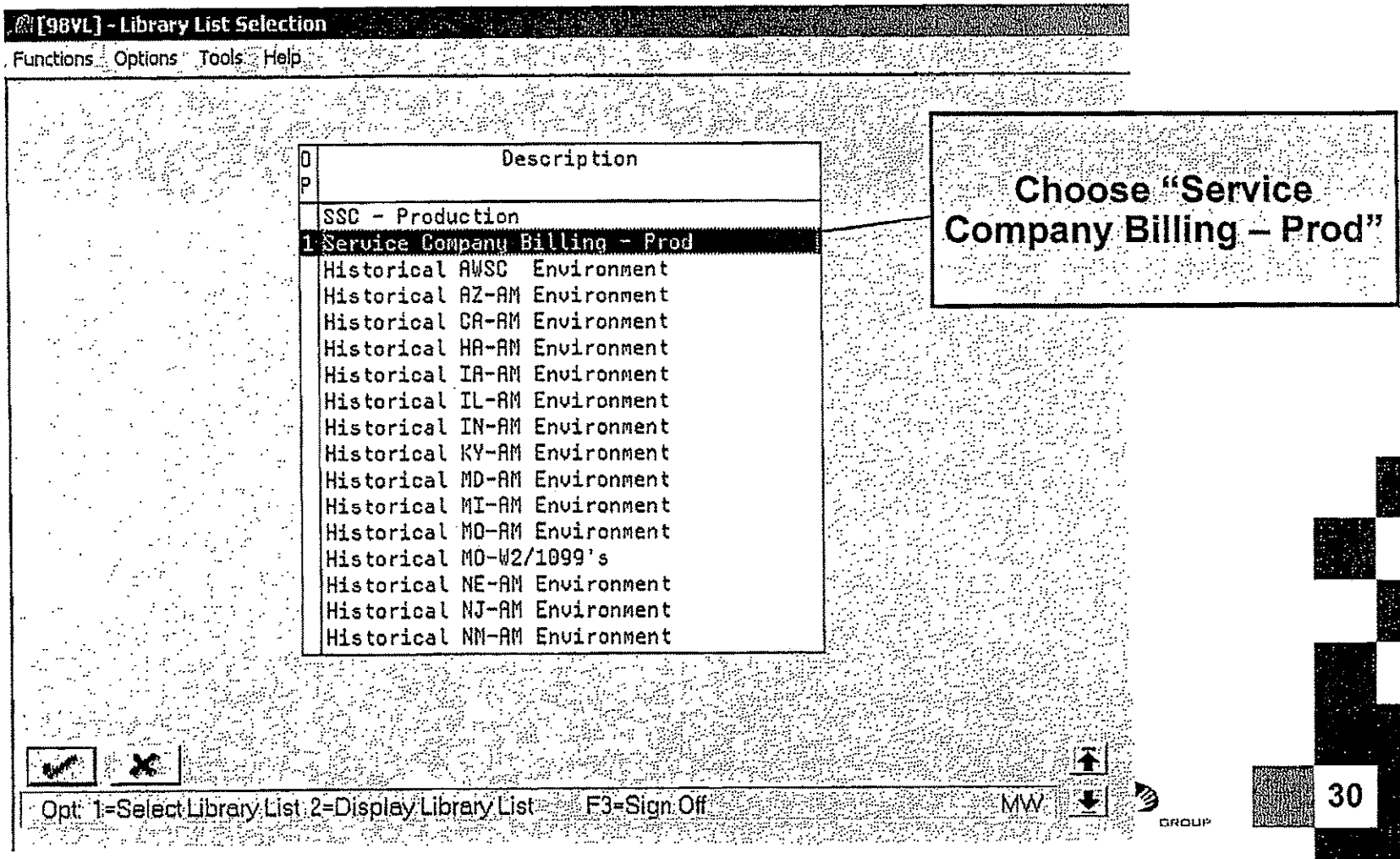
Section 3:
Reports & Inquiries from Service Company Billing File



RWE group

Billing Reports & Inquiry

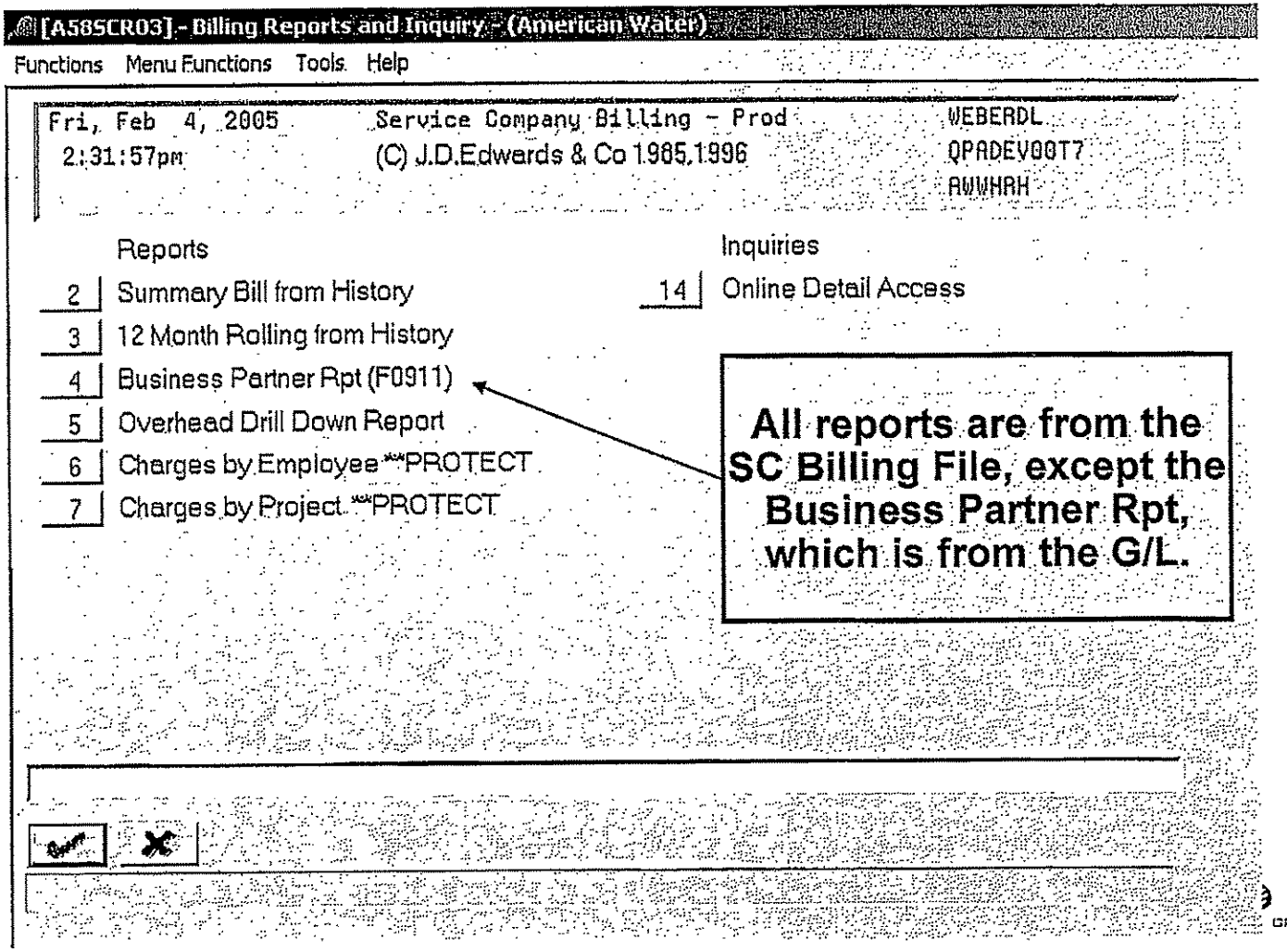
Accessing the Billing Reports



Choose "Service Company Billing – Prod"

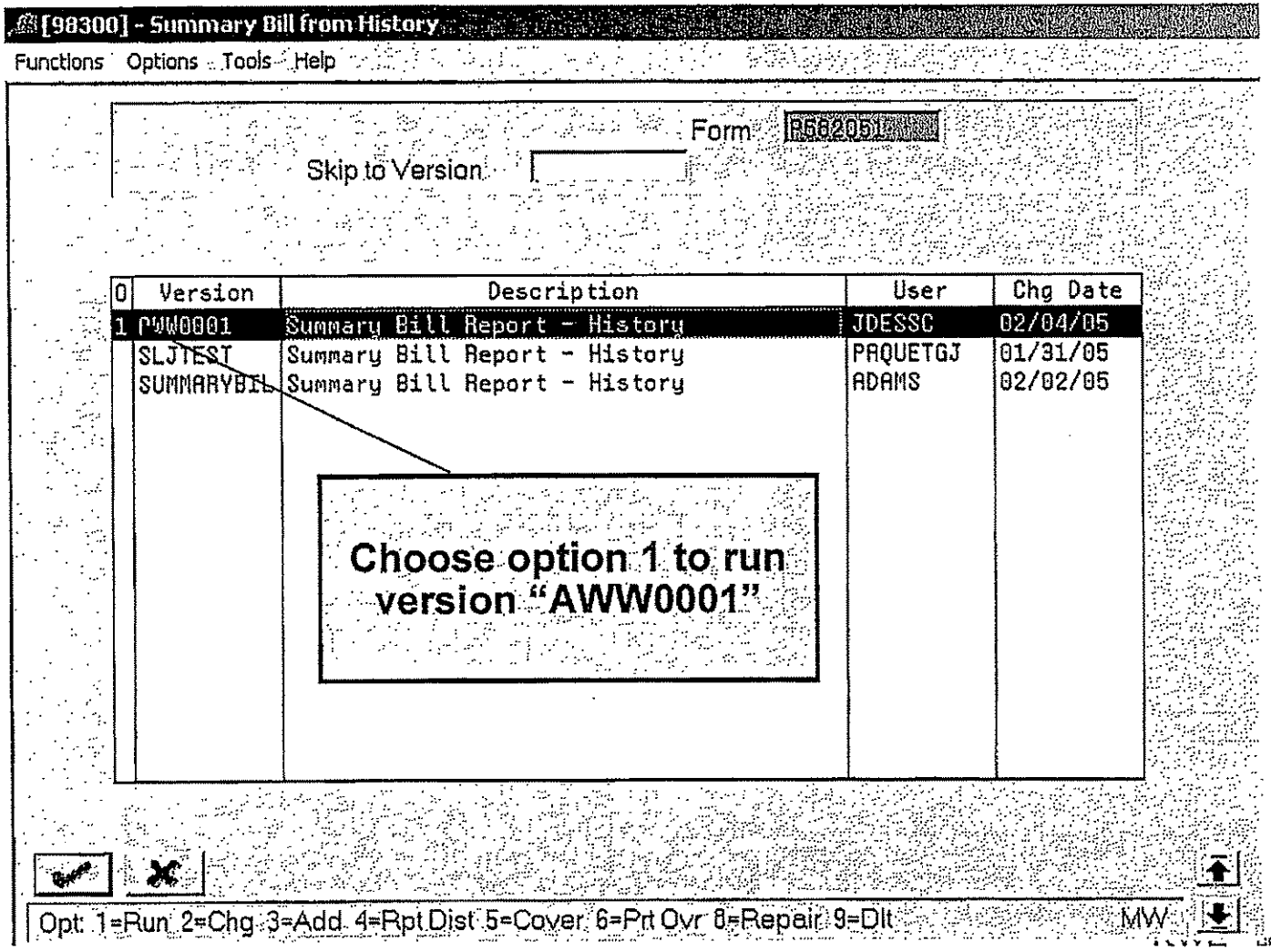
Billing Reports & Inquiry

American Water

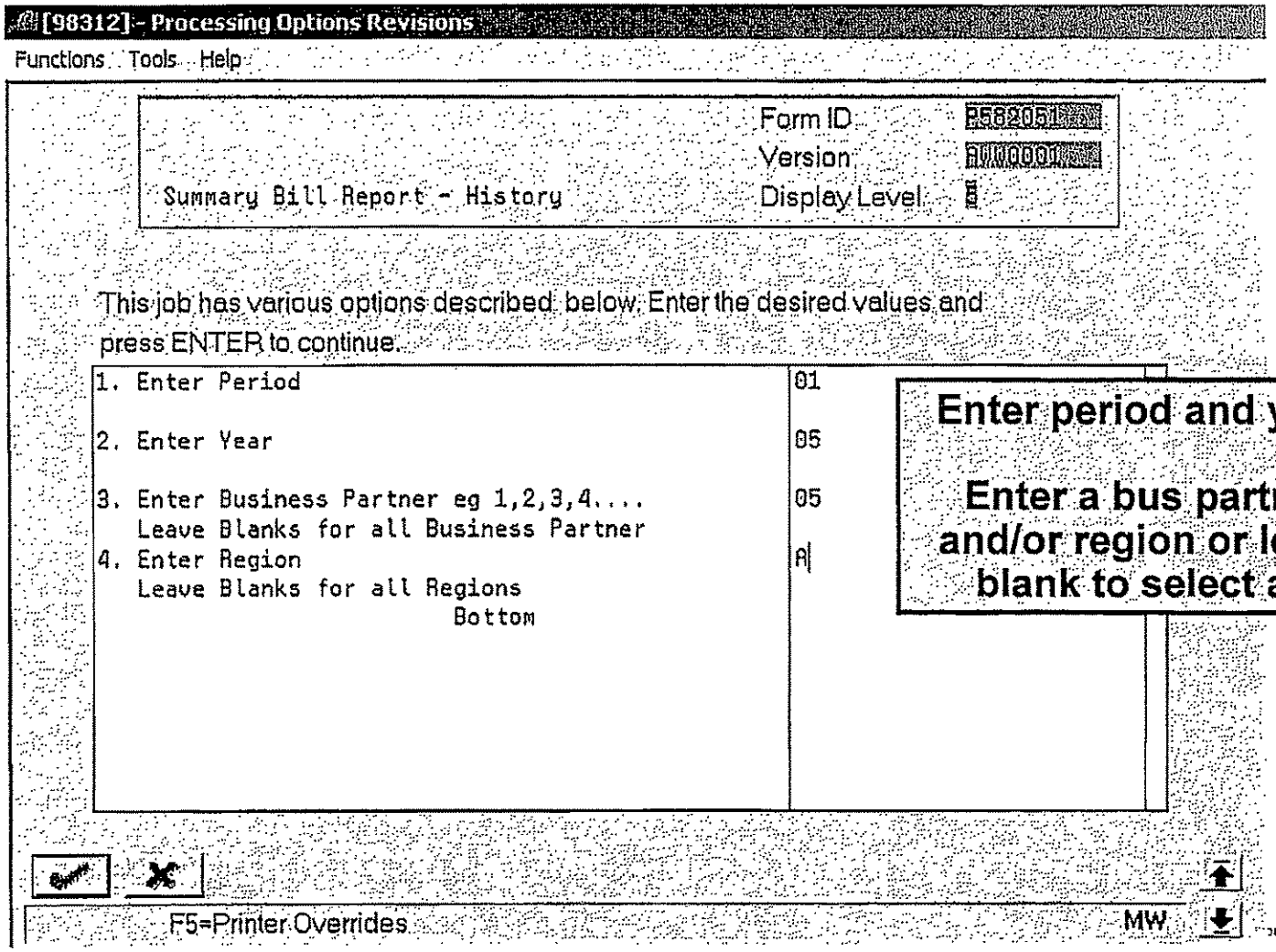


Billing Reports & Inquiry

Summary Bill



Billing Reports & Inquiry
Summary Bill

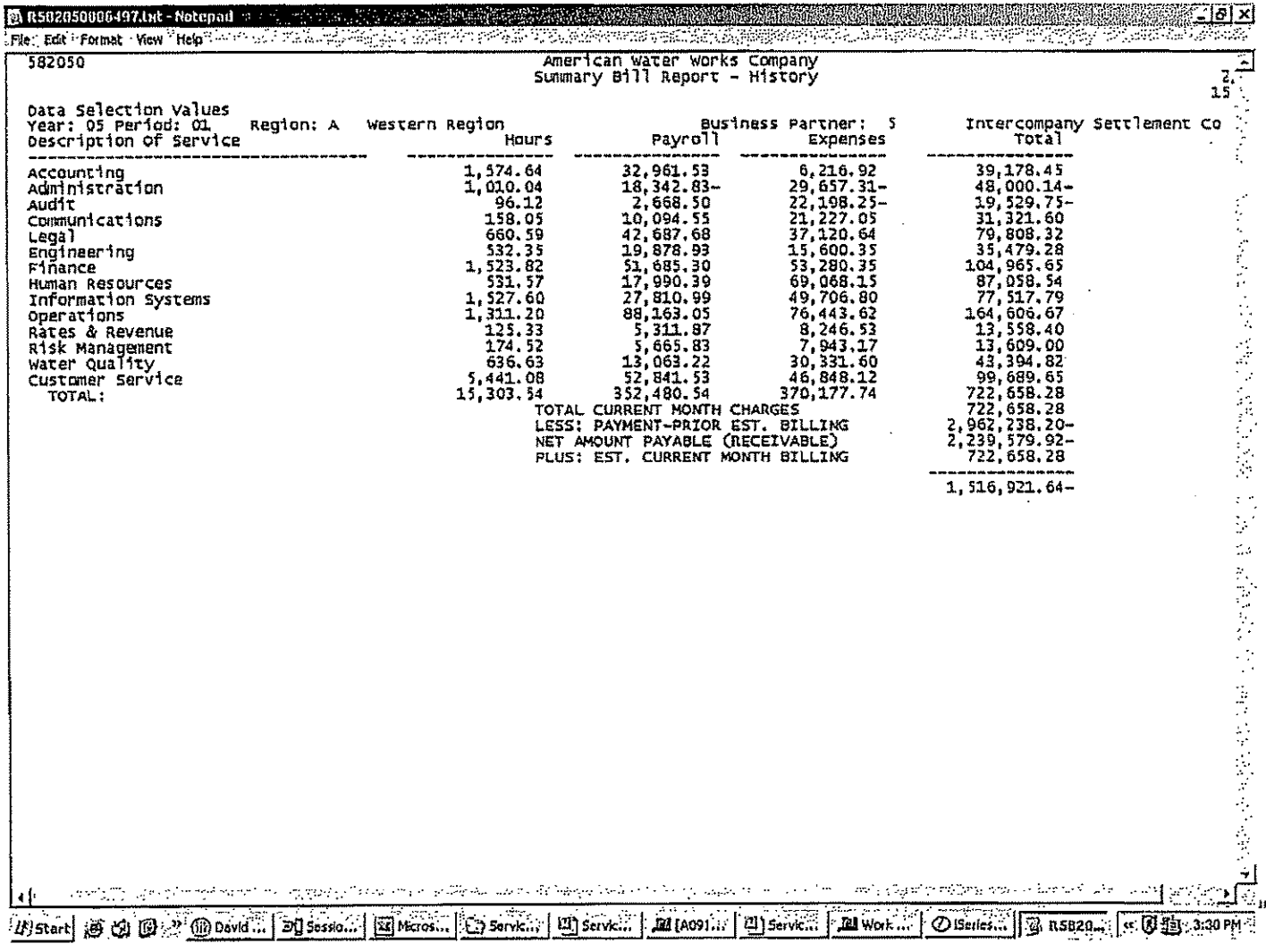


Enter period and year.

Enter a bus partner and/or region or leave blank to select all.

Billing Reports & Inquiry

Summary Bill



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File Edit Format View Help

582050

American Water Works Company
Summary Bill Report - History

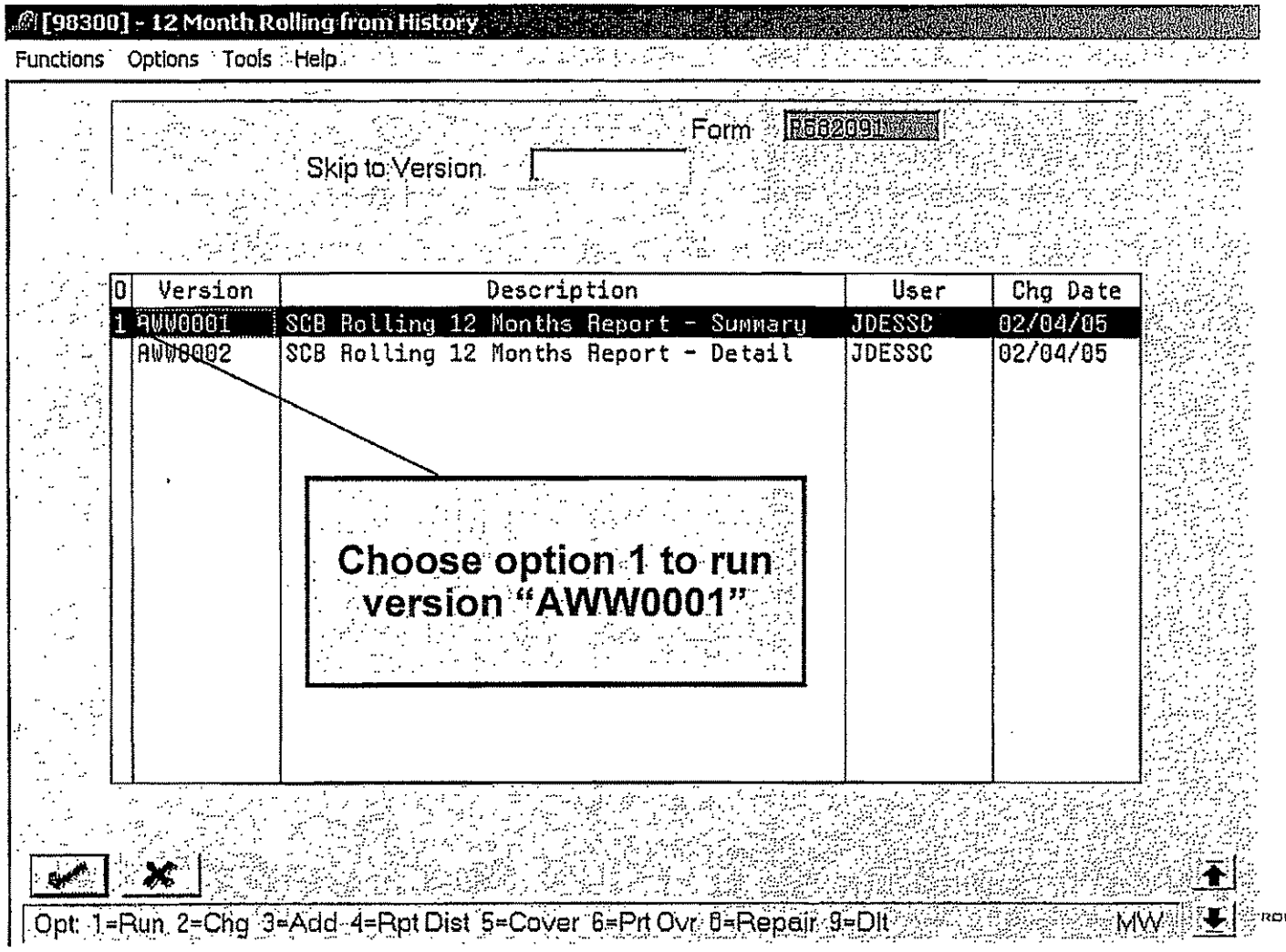
Data Selection Values
Year: 05 Period: 01 Region: A Western Region Business Partner: 5 Intercompany Settlement Co

Description of Service	Hours	Payroll	Expenses	Total
Accounting	1,574.64	32,961.53	6,216.92	39,178.45
Administration	1,010.04	18,342.83-	29,657.31-	48,000.14-
Audit	96.12	2,668.50	22,198.25-	19,529.75-
Communications	158.05	10,094.55	21,227.05	31,321.60
Legal	660.59	42,687.68	37,120.64	79,808.32
Engineering	532.35	19,878.93	15,600.35	35,479.28
Finance	1,523.82	51,685.30	53,280.35	104,965.65
Human Resources	531.57	17,990.39	69,068.15	87,058.54
Information Systems	1,527.60	27,810.99	49,706.80	77,517.79
Operations	1,311.20	88,163.05	76,443.62	164,606.67
Rates & Revenue	125.33	5,311.87	8,246.53	13,558.40
Risk Management	174.52	5,665.83	7,943.17	13,609.00
Water Quality	636.63	13,063.22	30,331.60	43,394.82
Customer Service	5,441.08	52,841.53	46,848.12	99,689.65
TOTAL:	15,303.54	352,480.54	370,177.74	722,658.28

TOTAL CURRENT MONTH CHARGES	722,658.28
LESS: PAYMENT-PRIOR EST. BILLING	2,962,238.20-
NET AMOUNT PAYABLE (RECEIVABLE)	2,239,579.92-
PLUS: EST. CURRENT MONTH BILLING	722,658.28
	1,516,921.64-

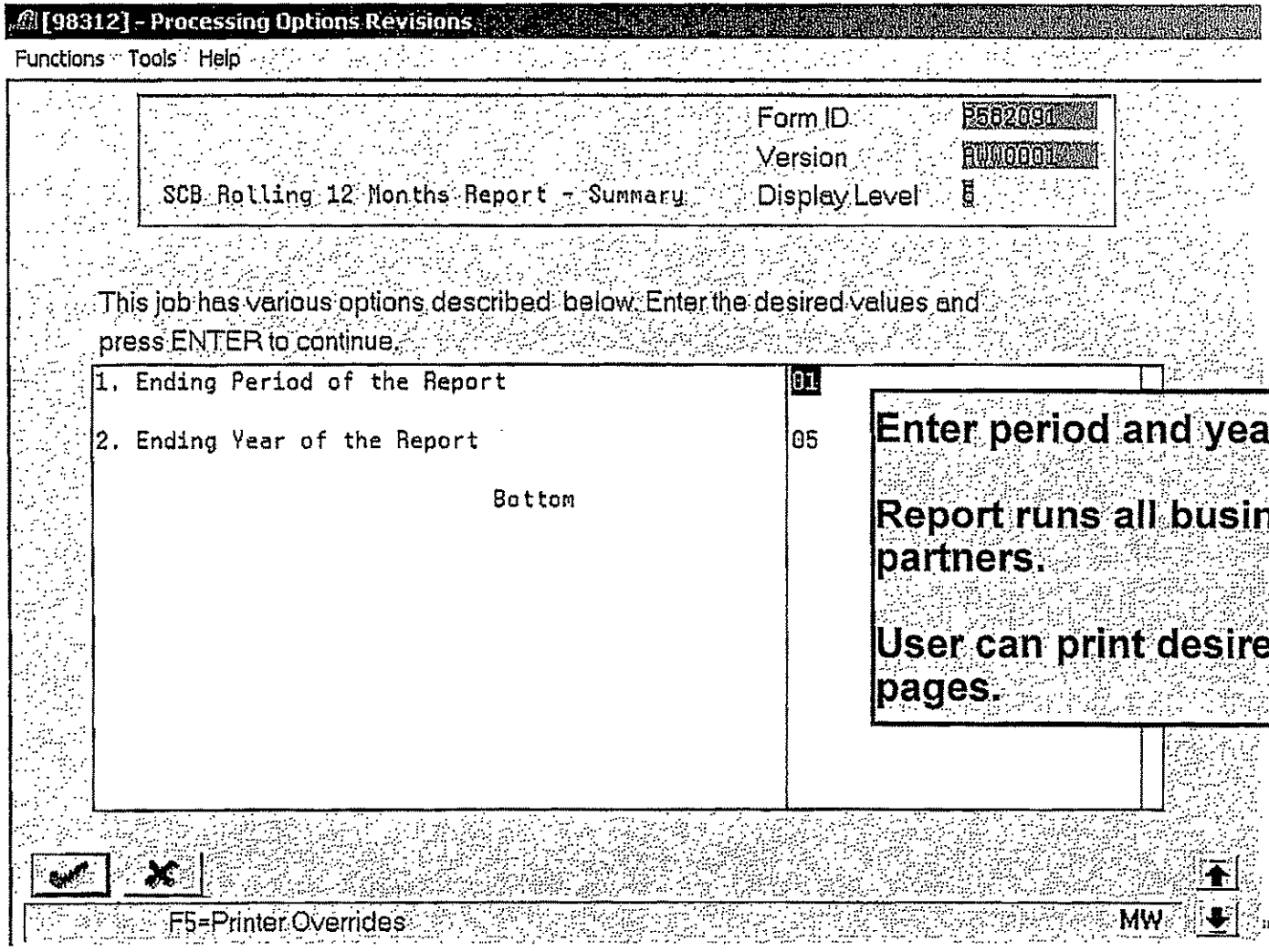
Billing Reports & Inquiry

12 Month Rolling



Billing Reports & Inquiry

12 Month Rolling



Enter period and year.

Report runs all business partners.

User can print desired pages.

Billing Reports & Inquiry

12 Month Rolling

R5020910006039.txt - Notepad

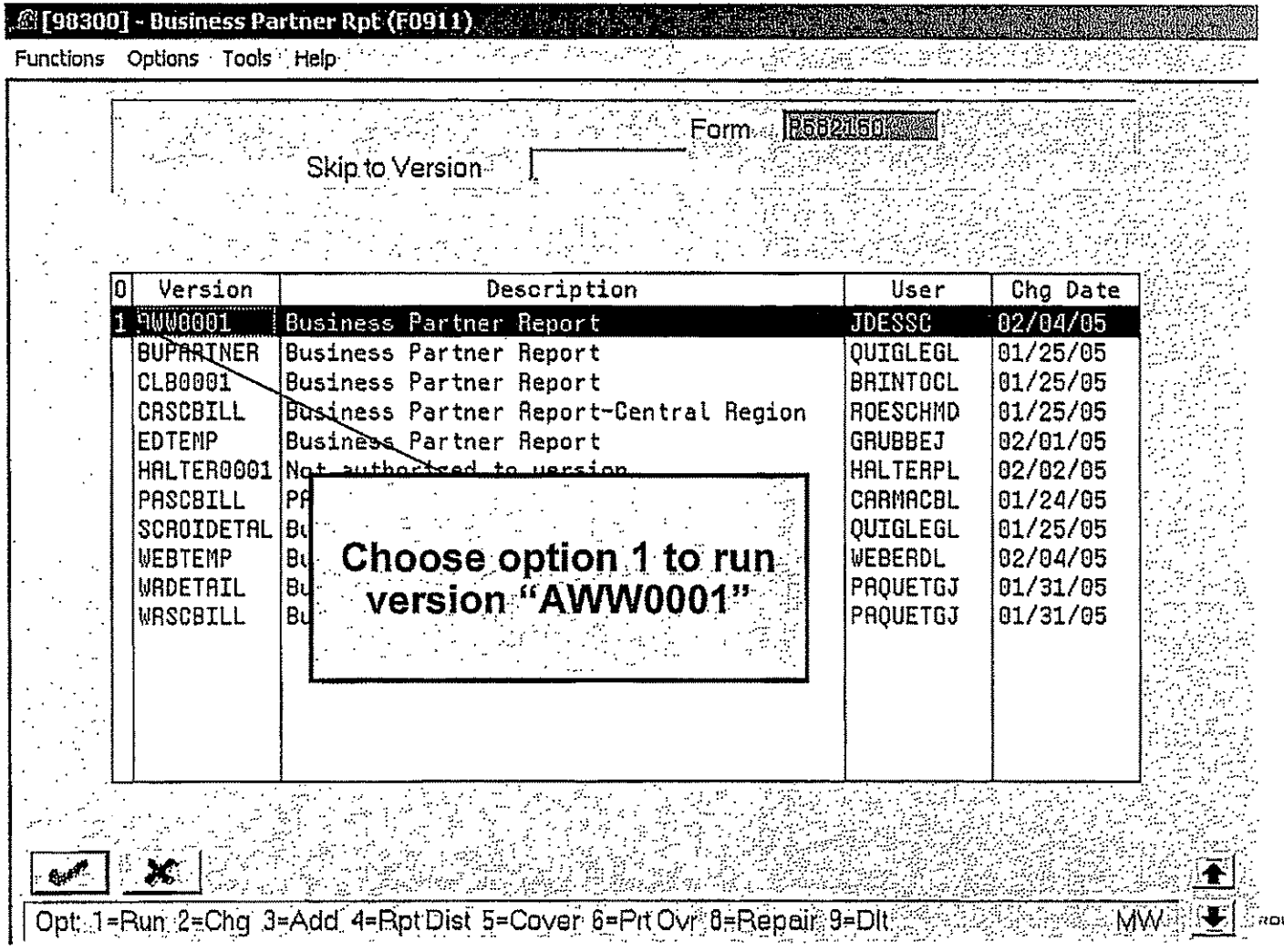
File Edit Format View Help

```
582091                                                                          Page:          1
                                                                                Date:    2/04/05
                                                                                Time:   15:31:55

Data Selection Values
Year: 05 Period: 01                                    Iness Partner:  2      American Water Works Company
SC Location: 0320        SC-Corporate Location         'ged Business Unit:      032001 CORP-Bldg Services Marlton
Mgmt Fee Acct Type: CAP                                'ged Object Acct: 534999
                                                       '04      09/04      10/04      11/04      12/04      01/05          Total
                                                       -------- ---------- ---------- ---------- ---------- ---------- --------------

 2      American Water Works Company
0320    SC-Corporate Location
CAP
032001   CORP-Bldg Services Marlton
  534999                                                                                                    44             44
Total: 032001   CORP-Bldg Services Marlton                                                                  44             44
032005   CORP-AWK Labor Pass Thru
  501200   Labor Oper AG                                                                                18,999         18,999
               Hours:                                                                                   24,000
  504500   Other Welf Oper AG                                                                            3,288          3,288
  534998                                                                                                   382            382
  534999                                                                                                    42             42
Total: 032005   CORP-AWK Labor Pass Thru                                                                22,712         22,712
032007   CORP-Finance
  534998                                                                                                 3,141          3,141
  534999                                                                                                11,281         11,281
Total: 032007   CORP-Finance                                                                            14,422         14,422
032015   CORP-Legal
  533000   Contr Svc-Legal Oper AG                                                                      69,737         69,737
  534998                                                                                                   787            787
  534999                                                                                                    77             77
Total: 032015   CORP-Legal                                                                              70,601         70,601
032018   CORP-Human Resources
  534998                                                                                                 9,283          9,283
  534999                                                                                                   171            171
Total: 032018   CORP-Human Resources                                                                     9,454          9,454
032019   CORP-Operational Risk
  534998                                                                                                   548            548
  534999                                                                                                   147            147
Total: 032019   CORP-Operational Risk                                                                      695            695
032020   CORP-Business Development
  501200   Labor Oper AG                                                                                34,840         34,840
               Hours:                                                                                   54,200
  534998                                                                                                 1,766          1,766
  534999                                                                                                   315            315
  535000   Contr Svc-Other Oper AG                                                                      14,100         14,100
Total: 032020   CORP-Business Development                                                               51,021         51,021
032025   CORP-External Affairs
  534998                                                                                                   547            547
  534999                                                                                                   145            145
Total: 032025   CORP-External Affairs                                                                      692            692
032060   CORP-Audit
  534998                                                                                                   841            841
```

Start | David ... | Sessio... | Micros... | Servic... | Servic... | [A091... | Servic... | Work ... | iSeries... | R5020... | 4:11 PM

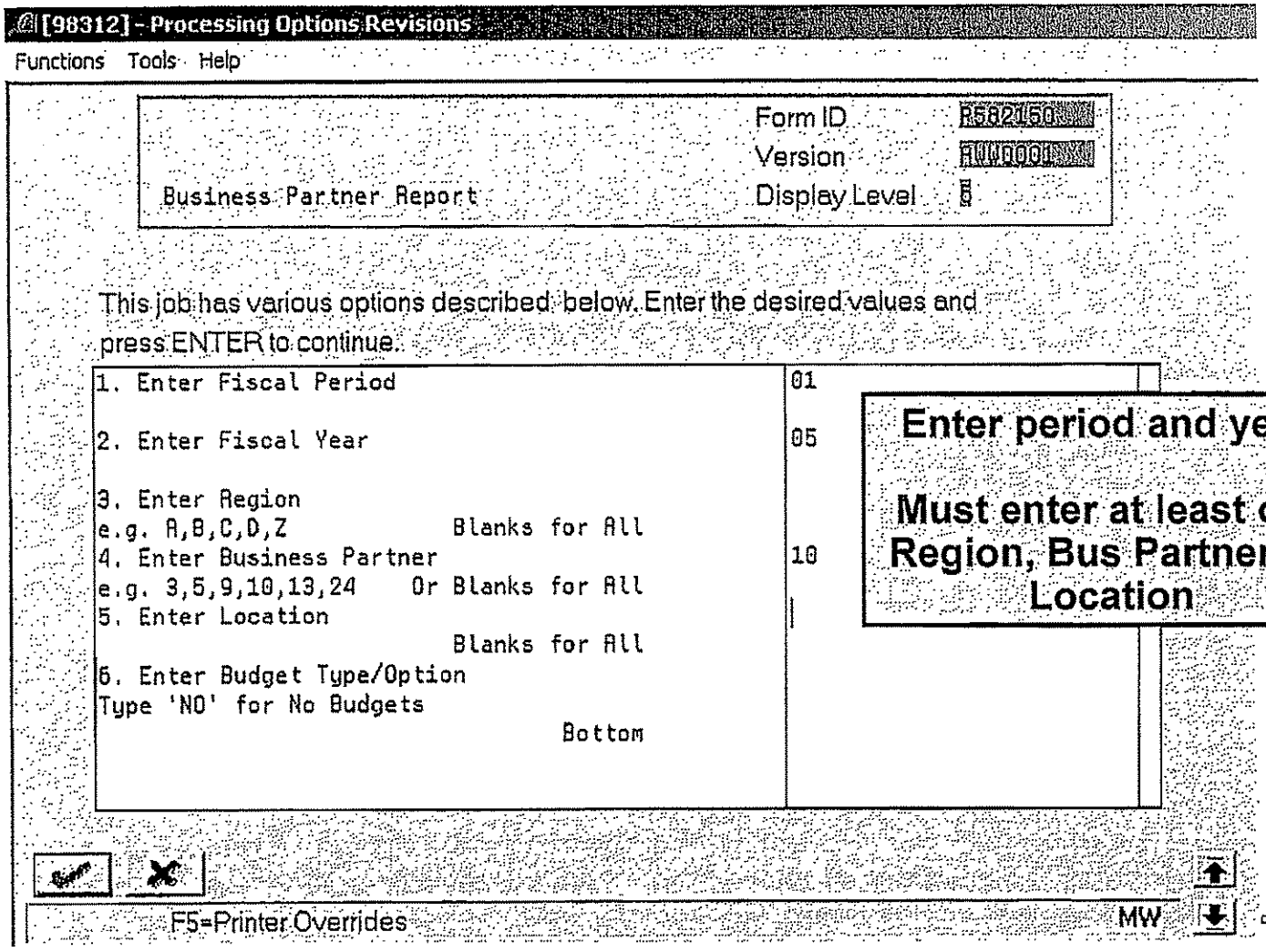
Billing Reports & Inquiry

Business Partner Report



Billing Reports & Inquiry

Business Partner Report

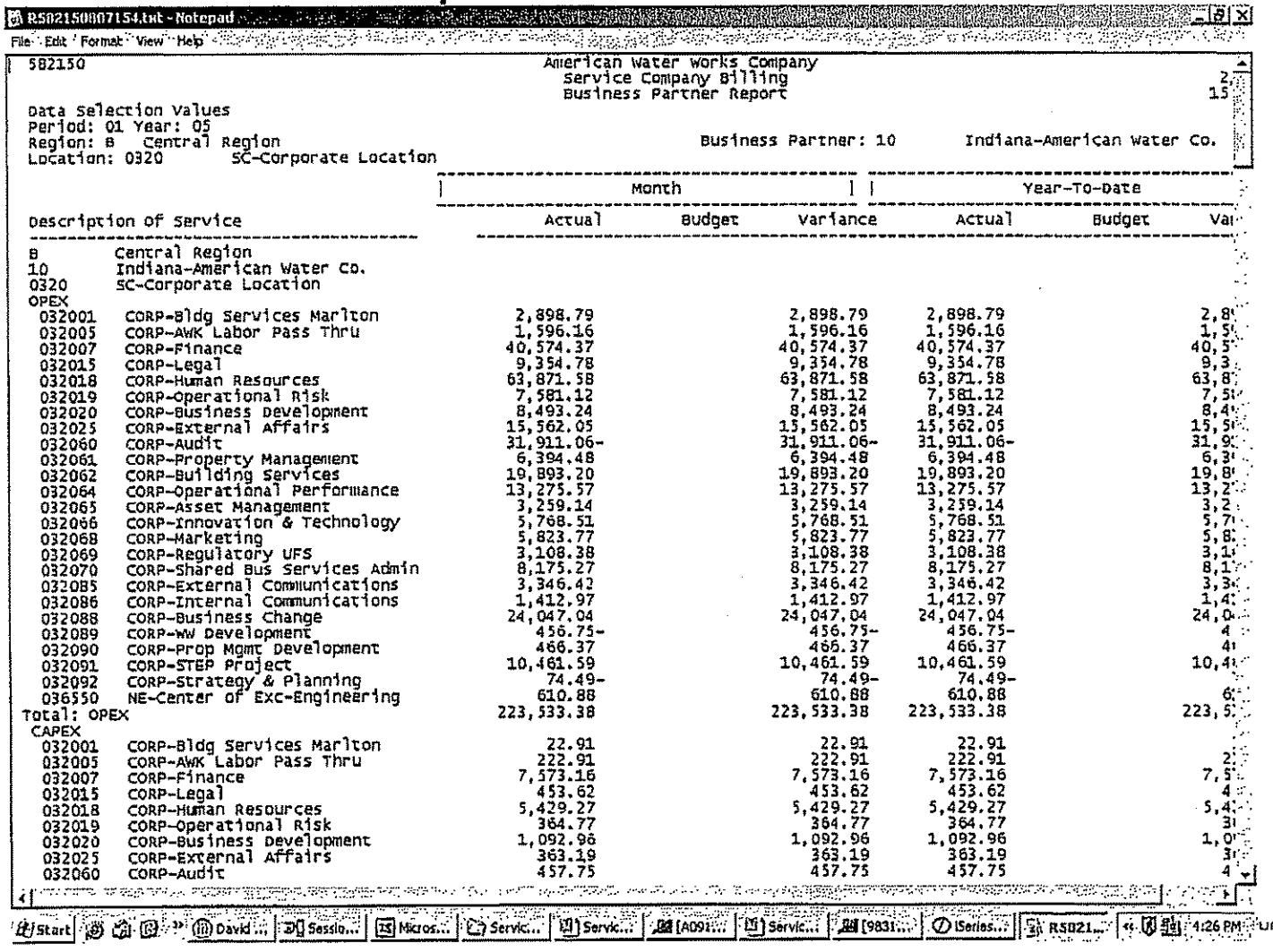


Enter period and year.

Must enter at least one Region, Bus Partner, or Location

Billing Reports & Inquiry

Business Partner Report



RS021S0807154.txt - Notepad

File Edit Format View Help

582150 American Water Works Company
Service Company Billing
Business Partner Report
2
15

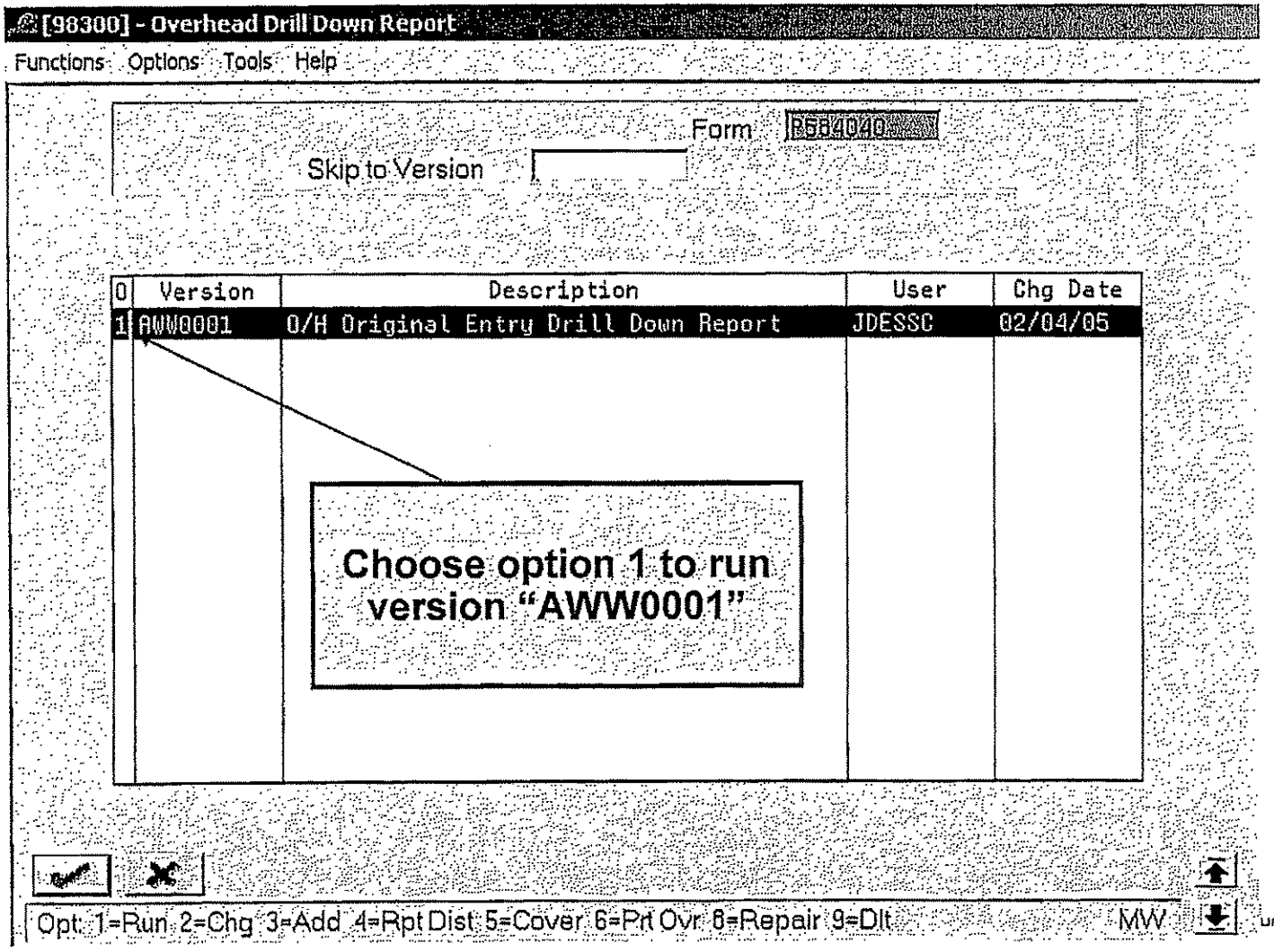
Data Selection Values
Period: 01 Year: 05
Region: B Central Region
Location: 0320 SC-Corporate Location
Business Partner: 10 Indiana-American Water Co.

Description of Service		Month			Year-To-Date		
		Actual	Budget	Variance	Actual	Budget	Va
B	Central Region						
10	Indiana-American Water Co.						
0320	SC-Corporate Location						
OPEX							
032001	CORP-Bldg Services Marlton	2,898.79	2,898.79		2,898.79	2,898.79	2,8
032005	CORP-AWK Labor Pass Thru	1,596.16	1,596.16		1,596.16	1,596.16	1,5
032007	CORP-Finance	40,574.37	40,574.37		40,574.37	40,574.37	40,5
032015	CORP-Legal	9,354.78	9,354.78		9,354.78	9,354.78	9,3
032018	CORP-Human Resources	63,871.58	63,871.58		63,871.58	63,871.58	63,8
032019	CORP-Operational Risk	7,581.12	7,581.12		7,581.12	7,581.12	7,5
032020	CORP-Business Development	8,493.24	8,493.24		8,493.24	8,493.24	8,4
032025	CORP-External Affairs	15,562.05	15,562.05		15,562.05	15,562.05	15,5
032060	CORP-Audit	31,911.06-	31,911.06-		31,911.06-	31,911.06-	31,9
032061	CORP-Property Management	6,394.48	6,394.48		6,394.48	6,394.48	6,3
032062	CORP-Building Services	19,893.20	19,893.20		19,893.20	19,893.20	19,8
032064	CORP-Operational Performance	13,275.57	13,275.57		13,275.57	13,275.57	13,2
032065	CORP-Asset Management	3,259.14	3,259.14		3,259.14	3,259.14	3,2
032066	CORP-Innovation & Technology	5,768.51	5,768.51		5,768.51	5,768.51	5,7
032068	CORP-Marketing	5,823.77	5,823.77		5,823.77	5,823.77	5,8
032069	CORP-Regulatory UFS	3,108.38	3,108.38		3,108.38	3,108.38	3,1
032070	CORP-Shared Bus Services Admin	8,175.27	8,175.27		8,175.27	8,175.27	8,1
032085	CORP-External Communications	3,346.42	3,346.42		3,346.42	3,346.42	3,3
032086	CORP-Internal Communications	1,412.97	1,412.97		1,412.97	1,412.97	1,4
032088	CORP-Business Change	24,047.04	24,047.04		24,047.04	24,047.04	24,0
032089	CORP-WW Development	456.75-	456.75-		456.75-	456.75-	4
032090	CORP-Prop Mgmt Development	466.37	466.37		466.37	466.37	4
032091	CORP-STEP Project	10,461.59	10,461.59		10,461.59	10,461.59	10,4
032092	CORP-Strategy & Planning	74.49-	74.49-		74.49-	74.49-	
036550	NE-Center of Exc-Engineering	610.88	610.88		610.88	610.88	6
Total: OPEX		223,533.38	223,533.38		223,533.38	223,533.38	223,5
CAPEX							
032001	CORP-Bldg Services Marlton	22.91	22.91		22.91	22.91	
032005	CORP-AWK Labor Pass Thru	222.91	222.91		222.91	222.91	2
032007	CORP-Finance	7,573.16	7,573.16		7,573.16	7,573.16	7,5
032015	CORP-Legal	453.62	453.62		453.62	453.62	4
032018	CORP-Human Resources	5,429.27	5,429.27		5,429.27	5,429.27	5,4
032019	CORP-Operational Risk	364.77	364.77		364.77	364.77	3
032020	CORP-Business Development	1,092.96	1,092.96		1,092.96	1,092.96	1,0
032025	CORP-External Affairs	363.19	363.19		363.19	363.19	3
032060	CORP-Audit	457.75	457.75		457.75	457.75	4

Start David... Sessio... Micros... Servic... Servic... [A09]... Servic... [9831... iSeries... RS021... 4:26 PM

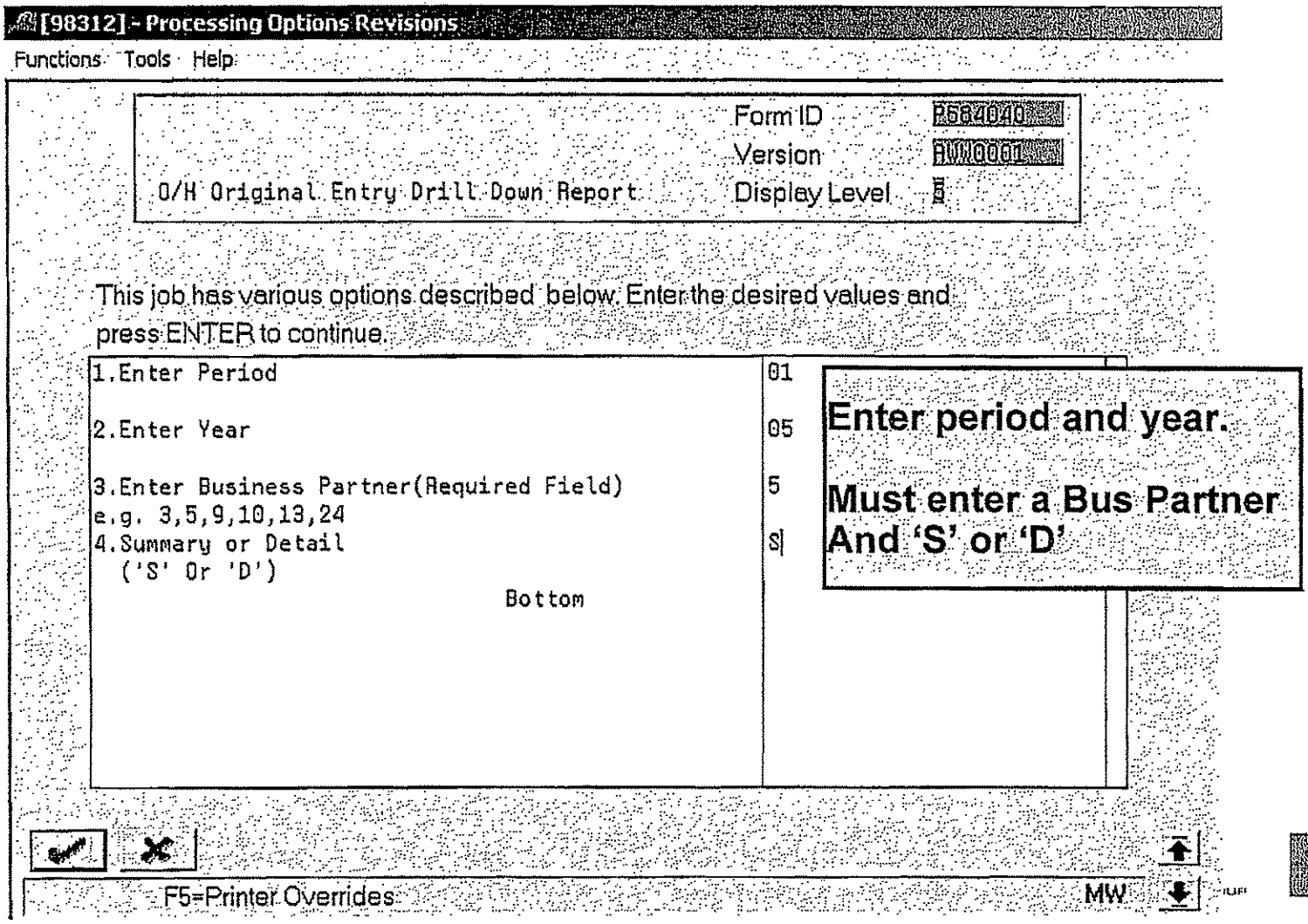
Billing Reports & Inquiry

Overhead Drill Down



Billing Reports & Inquiry

Overhead Drill Down



Billing Reports & Inquiry

Overhead Drill Down

American Water

R5040400000429.txt - Notepad

File Edit Format View Help

1040

American Water Works Company
O/H Original Entry Drill Down Report

SUMMARY

1
2/04/C
16:43:4

:a Selection Values
ir: 05 Period: 01

Business Partner: 5 California-American Water Co.

Document No.	Document Type	Batch	Object	Subsidiary	Business Partner	Business Units	Formula	Amount	Allocation Percentage	Extended Amount
40944908	PV	03434815	541400	16	ORIGINAL	032001	999999	433.90		
							Total:		4.57%	19.90
40944883	PV	03434812	575000	16	ORIGINAL	032001	999999	240.00		
							Total:		4.57%	11.01
40951382	PV	03437675	575000	16	ORIGINAL	032001	999999	300.00		
							Total:		4.57%	13.74
40944881	PV	03434812	575710	16	ORIGINAL	032001	999999	475.15		
							Total:		4.57%	21.82
00014744	T2	03436941	501200	16	ORIGINAL	032005	999999	1,272.05		
							Total:		4.57%	58.42
30184822	BN	03439490	504100	16	ORIGINAL	032005	888888	4,521.78		
							Total:		4.57%	207.64
30184822	BN	03439490	504100	16	ORIGINAL	032005	888888	.74		
							Total:		4.57%	.01
30184822	BN	03439490	504100	16	ORIGINAL	032005	888888	.74		
							Total:		4.57%	.01
30184822	BN	03439490	504100	16	ORIGINAL	032005	888888	.74		
							Total:		4.57%	.01
30184822	BN	03439490	504100	16	ORIGINAL	032005	888888	.74		
							Total:		4.57%	.01
30184822	BN	03439490	504100	16	ORIGINAL	032005	888888	.74		
							Total:		4.57%	.01
30184822	BN	03439490	504500	16	ORIGINAL	032005	888888	2,275.25		
							Total:		4.57%	104.46
30184822	BN	03439490	504500	16	ORIGINAL	032005	888888	.72		
							Total:		4.57%	.01
30184822	BN	03439490	504660	16	ORIGINAL	032005	888888	5.04		
							Total:		4.57%	.21
30184822	BN	03439490	507100	16	ORIGINAL	032005	888888	564.69		
							Total:		4.57%	25.95
30184822	BN	03439490	507100	16	ORIGINAL	032005	888888	2.34		
							Total:		4.57%	.08
30184822	BN	03439490	507100	16	ORIGINAL	032005	888888	2.11		
							Total:		4.57%	.07
30184822	BN	03439490	507100	16	ORIGINAL	032005	888888	14.84		

1040

American Water Works Company
O/H Original Entry Drill Down Report

SUMMARY

2
2/04/C
16:43:4

:a Selection Values
ir: 05 Period: 01

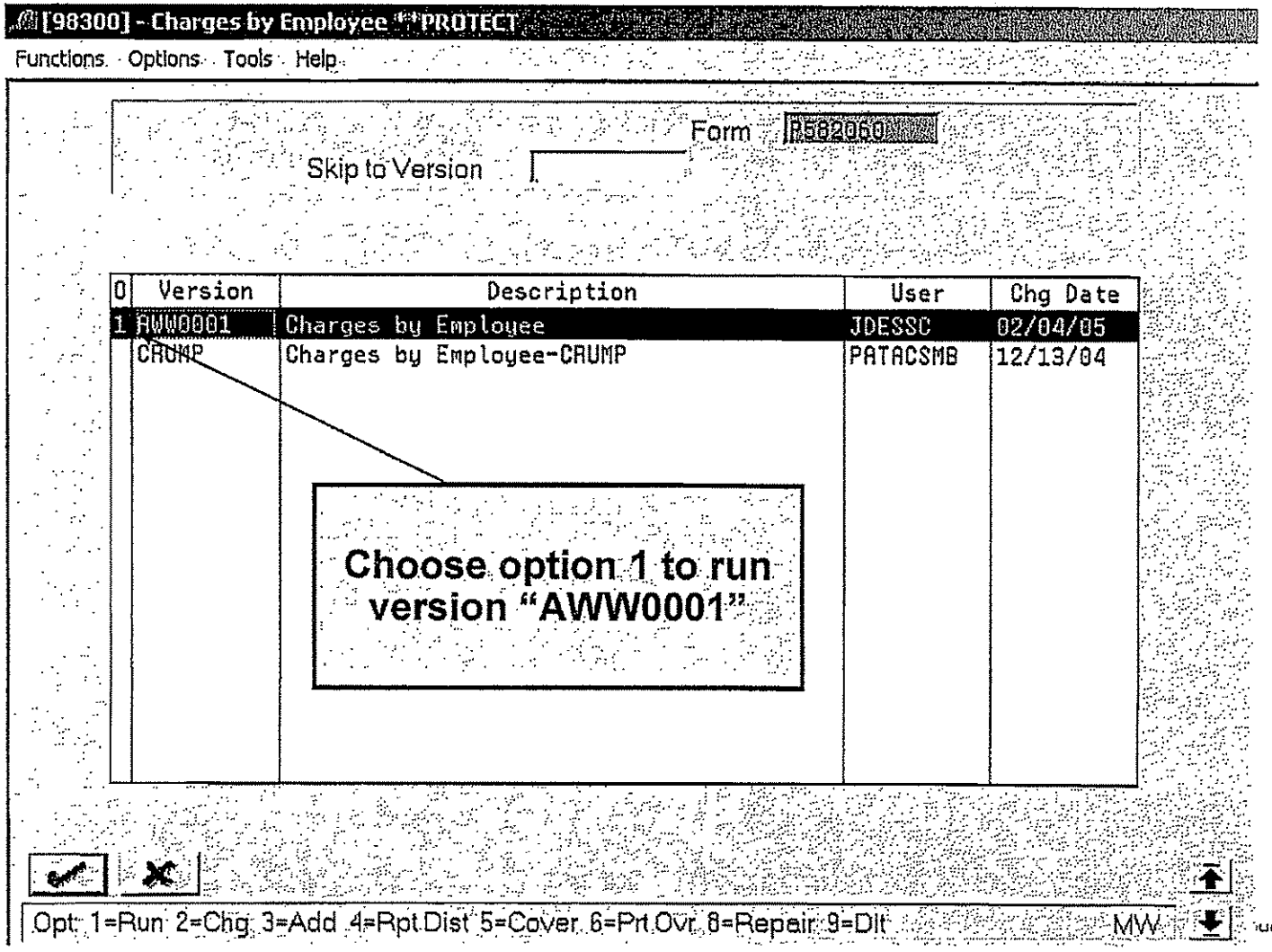
Business Partner: 5 California-American Water Co.

Document No.	Document Type	Batch	Object	Subsidiary	Business Partner	Business Units	Formula	Amount	Allocation Percentage	Extended Amount
							Total:		4.57%	.65

Start | David ... | Sessio... | Micros... | Servic... | Servic... | [AT00... | Servic... | Work... | iSeries... | R5840... | 4:49 PM

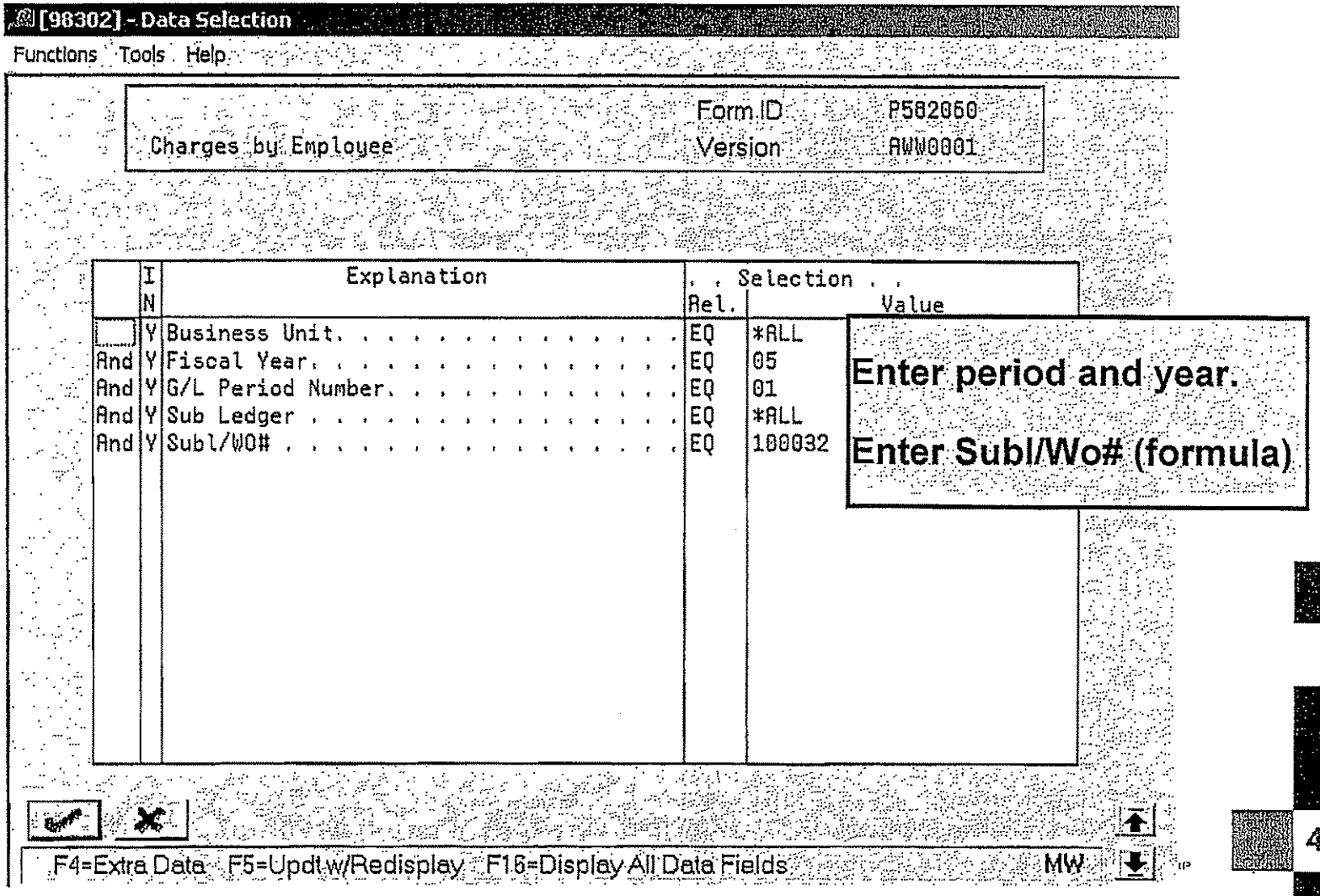
Billing Reports & Inquiry

Charges by Employee



Billing Reports & Inquiry

Charges by Employee



Billing Reports & Inquiry

Charges by Employee

American Water

R5020610005 43.txt - Notepad

File Edit Format View Help

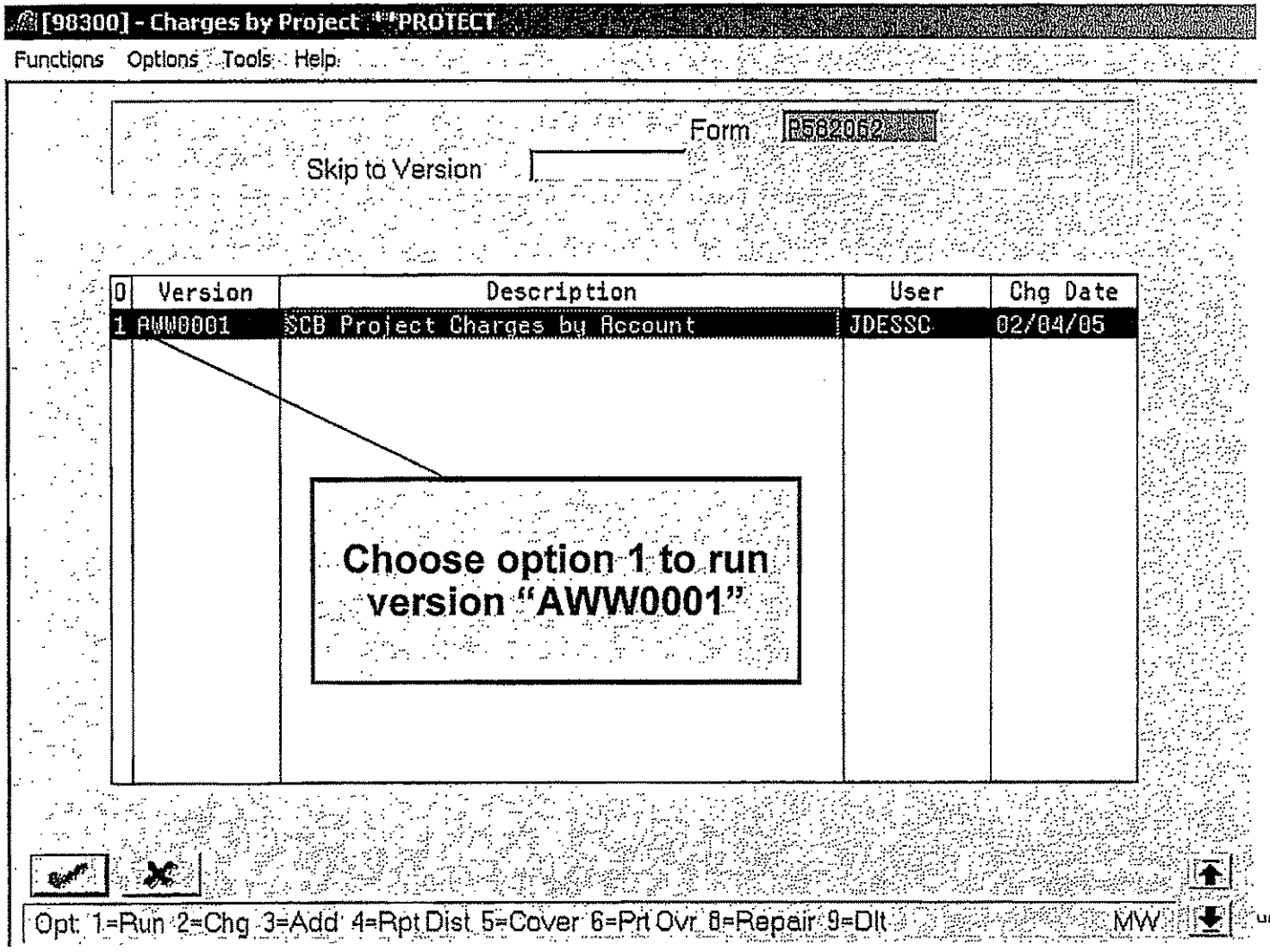
```
e...: 2/04/05                    American Water Works Serv Co.                    P582061
e... 16:55:12                          Charges by Employee                        Page....:
A SELECTION
iness Unit.... EQ *ALL
iness Partner. EQ *ALL
mula.......... EQ 100097
iod........... EQ 01
r.............. EQ 05
```

pany Information	Formula	Employee#/ Bus.Unit		Hours	Labor Amount	Voucher/Journal Amount
American Water Resources, Inc						
	100097	REWRITE SC BILLING AU0111			13,108.27	
		03017241	Basquill Sr,	xx	271.65	
		03017515	Caccese, Pat	xx	324.54	
		03018059	Schindler, C	xx	65.83	
		18507643	Weber, David	xx	791.94	
		18508793	Barner, Stev	xx	247.42	
		50011005	Brand, Tina	xx	527.20	
		50079284	Jones, Patri	xx	105.60	
		50085706	Kerney Jr.,	xx	494.99	
		Other				13,178.95
	Total for 100097			484.00	15,937.44	13,178.95
al by Company 21	American Water Resources, Inc			484.00	15,937.44	13,178.95
nd Total for All Companies				484.00	15,937.44	13,178.95

Start | David ... | Sessio... | Micros... | Servic... | Servic... | AT00... | Servic... | Work ... | iSeries... | R5020... | 5:00 PM

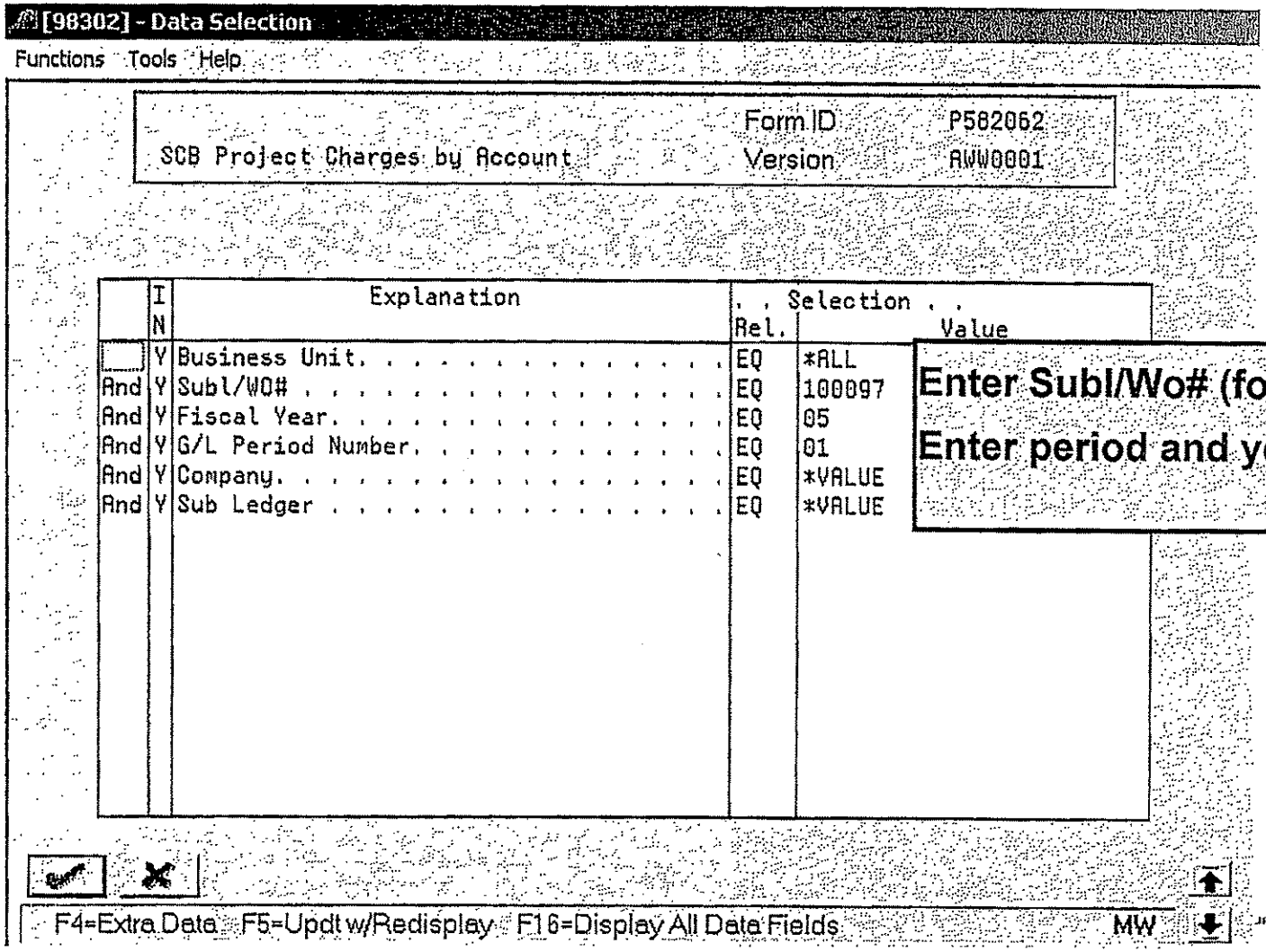
Billing Reports & Inquiry

Charges by Project



Billing Reports & Inquiry

Charges by Project



Billing Reports & Inquiry

Charges by Project

American Water

R5B2062008720.txt - Notepad

File Edit Format View Help

```
Date...: 2/04/05                                   American Water Works Serv Co.
Time... 17:04:10                                     Project Charges by Account
DATA SELECTION
==============
WDCO ............ EQ *VALUE        00003
WDMCU ........... EQ *ALL
WDSBL5........... EQ *VALUE        ORIGINAL
WDFY............. EQ 05
WDPN............. EQ 01
WDSBL............ EQ 100097
 Project#     100097    REWRITE SC BILLING AU0111
```

Document Number	Do Ty	J/E Line Number	Employee /Vendor#	Name	BU		Account Number	Sub	Description	SI Ty
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12250.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
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00014550	T2	14318.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014550	T2	14318.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014550	T2	14318.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014550	T2	14318.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014744	T2	128.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014744	T2	128.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014744	T2	128.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014744	T2	128.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014744	T2	128.0	50085706	Kerney Jr.,	032079	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	18508793	Barner, Stev	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	18508793	Barner, Stev	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	18508793	Barner, Stev	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	18508793	Barner, Stev	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	18508793	Barner, Stev	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	50145186	Feldman, Yak	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	50145186	Feldman, Yak	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	50145186	Feldman, Yak	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	50145186	Feldman, Yak	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	50145186	Feldman, Yak	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	18507441	Kostiou, Nic	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	18507441	Kostiou, Nic	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	3017241	Basquill Sr,	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
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00014392	T2	12300.0	3017241	Basquill Sr,	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	3017241	Basquill Sr,	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	3017241	Basquill Sr,	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	50064428	Schmid, Debo	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	
00014392	T2	12300.0	50064428	Schmid, Debo	032080	CORP-ITS Application	501200	164119	Labor Op IT-Fin/Acct	

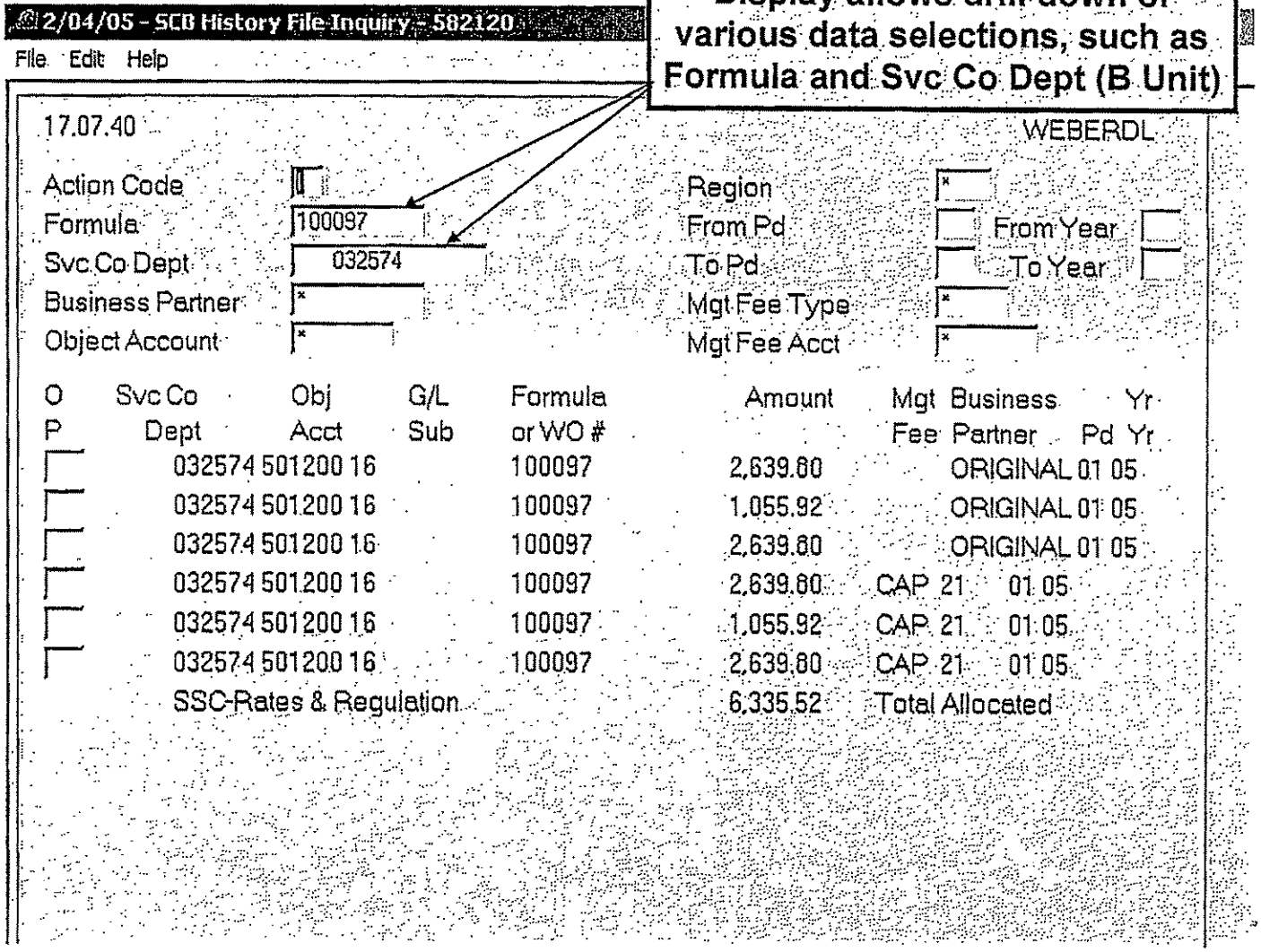
Start | David... | Sessio... | Micros... | Servic... | Servic... | [AT00... | Servic... | Work... | iSeries... | R5820... | 5:07 PM

Billing Reports & Inquiry

American Water

Online Detail Access

Display allows drill down of various data selections, such as Formula and Svc Co Dept (B Unit)



00026006843160000000000005052012

Tennessee
American Water
PO BOX 578
ALTON, IL 62002-0578

26-0068431-6

$50.52

May 15, 2007

For Service To: [redacted]

Amount Paid

ELECTRONIC
PAYMENT
DO NOT PAY

[redacted]
Chattanooga TN 37412[redacted]

Tennessee American Water
PO Box 70824
Charlotte, NC 28272

☐ *Please check here to add Project Water Help contribution to your monthly bill, or to change your address or telephone number. Print information on reverse side.*

Customer Account Information

For Service To: [redacted]

Account Number: [redacted]
Premise Number: [redacted]

Billing Period & Meter Information

Billing Date: Apr 12, 2007
Billing Period: Mar 08 to Apr 09 (32 days)
Next reading on/about: May 08, 2007
Rate Type: Residential

Meter readings in current billing period:
Meter Number 082375892T is a 5/8-inch meter.

Present-actual	46
Last-actual	40
100 Cubic Feet used	6
1 cu.ft. = approx 7.50 gallons	
Gallons used	4500

Billing Summary

----------Prior Balance----------	
Balance from last bill	$35.27
Payments as of Apr 12, 2007. Thanks!	-35.27
Total prior balance, Apr 12, 2007	.00
----------Current Water Charges----------	
Basic Service	9.26
Water Volume	6.15
Total water charges, Apr 12, 2007	15.41
----------Current Wastewater Charges--	
Hamilton Swr	18.18
Total wastewater charges, Apr 12, 2007	18.18
----------Other Current Charges----------	
Customer Protection Water Line	5.50
East Ridge Garbage RES	10.00
Total other charges, Apr 12, 2007	15.50
----------Taxes----------	
Tennessee State and Local Tax	1.43
Total taxes, Apr 12, 2007	1.43
----------Total Current Charges----------	50.52
----------TOTAL AMOUNT DUE----------	**$50.52**

Do not send payment. Total Amount Due will be deducted from your bank account on May 15, 2007

Water Usage Comparison

Monthly usage

2006 Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr 2007

Messages from Tennessee American Water

*For your convenience, we have payment locations at: * Kingwood Pharmacy 3824 Ringgold Rd.*

TENNESSEE REGULATORY AUTHORITY

STATE OF TENNESSEE

COUNTY OF DAVIDSON

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared John S. Watson, being by me first duly sworn deposed and said that:

He is appearing as a witness on behalf of Tennessee American Water Company before the Tennessee Regulatory Authority, and if present before the Authority and duly sworn, as set forth in his E-CIS Supplemental Testimony attached hereto.

DATED this 26th day of April, 2007.

(signature)

JOHN S. WATSON

(printed name)

Sworn to and subscribed before me this 26th day of April, 2007.

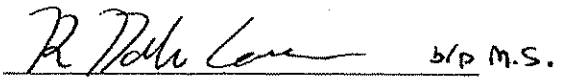
NOTARY PUBLIC

My Commission Expires: March 20, 2010

MONIQUE SULLIVAN
STATE OF TENNESSEE NOTARY PUBLIC
DAVIDSON COUNTY

6436225.1

Respectfully submitted,



R. Dale Grimes (#6223)
J. Davidson French (#15442)
Ross I. Booher (#019304)
BASS, BERRY & SIMS PLC
315 Deaderick Street, Suite 2700
Nashville, TN 37238-3001
(615) 742-6200

Counsel for Petitioner
Tennessee American Water Company

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing has been served via the method(s) indicated, on this the 26th day of April, 2007, upon the following:

[ ] Hand	Michael A. McMahan
[ ] Mail	Special Counsel
[ ] Facsimile	City of Chattanooga (Hamilton County)
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