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400 West Summit Hill Dr. WT 7D  
Knoxville, TN 37902-1499  
Fax: 865-632-6901

Note: Several audit reports requested were withheld. See release letter for details.

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Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902-1401

December 14, 2009

This responds to your letter dated January 3, 2009, requesting information under the Freedom of Information Act (FOIA) 5 U.S.C. § 552 (2006 & Supp. I 2007). You requested copies of 29 TVA Office of the Inspector General (OIG) audit reports.

We collected and reviewed these reports and have made the following determinations on their release.

We are providing complete un-redacted copies of 14 of the reports you requested. We are providing redacted copies of three of the reports. We are withholding seven reports pursuant to FOIA exemptions. These reports deal with dam security, IT security, and the handling of sensitive information.

In your letter, you asked for a fee waiver based on your assessment of the public interest in TVA in general and a particular interest in these reports. For the remaining five reports responsive to your request we found that there are newer reviews available on the OIG website for three of the reports, and two of the reports are on subjects that are no longer relevant to TVA operations. Therefore, we are not providing copies of these five reports. You may contact me if you are still interested in receiving copies of these reports.

Enclosed is a spreadsheet providing specific details for each report, including the FOIA exemptions.

You may appeal this initial determination of your FOIA request by writing to Mr. David R. Mould, Senior Vice President, Communications, Tennessee Valley Authority, 400 W. Summit Hill Drive (WT 7B), Knoxville, TN 37902-1401. See 18 CFR § 1301.9 (2009). Any appeal must be received by Mr. Mould within 30 days of the date of this letter.

Sincerely,

A handwritten signature in black ink that reads "Denise Smith". The signature is written in a cursive, flowing style.

Denise Smith  
TVA FOIA Officer

Enclosures

**FOIA REQUEST - #3549**

<b>Date of Report</b>	<b>Report Number</b>	<b>Report Name/Description</b>	<b>Comments</b>
01/30/01	1999-025P	Review of TVA's Current Arrangement for Meeting Personnel Ground Transportation Needs	Complete copy enclosed
02/18/00	2000-032F	Review of TVA's Accounts Receivable Write-Off Policy	Complete copy enclosed
06/14/01	2001-033F	Selected Power Rate & Cost Issues	Complete copy enclosed
08/24/01	2001-081P	TVA's Compliance With the National Energy Conservation Policy Act	Complete copy enclosed
04/02/01	2001-914C	Update on Selected Management Practices	Complete copy enclosed
04/08/02	2002-021V	Survey of Information Services Personnel Who Directly Support TVA Nuclear	Complete copy enclosed
02/14/03	2003-008F	TVA's Tax Equivalent Payments	Complete copy enclosed
03/24/05	2004-063F	Controls Over Nuclear Fuel Inventory	Complete copy enclosed
03/21/05	2005-011F	New Executive Orientation	Complete copy enclosed
03/31/05	2005-020F	Survey of TVA's Clean Air Program	Complete copy enclosed
02/23/06	2005-052F	Follow-up Review of TVA Hospitality Expenses - (available on-line in 2006 Reports)	Complete copy enclosed
08/21/06	2006-002C	TVA's Contracting Process	Complete copy enclosed
02/29/08	2007-11229	New Executive Orientation	Complete copy enclosed
03/23/99	99-033F	Verification of Facts Data	Complete copy enclosed
01/26/07	2006-039C	Review of FEMA Mission Assignments	Redacted version - EX 4, EX 5 deliberative
02/15/01	2000-058F	Review of TVA's Decommissioning Fund	Redacted version - EX 4, EX 5 government confidential commercial
01/29/04	2003-044F	Tritium Program - DOE and TVA Interagency Agreement No. DEA10200DP00315	Redacted version - EX 5 deliberative, government confidential commercial
04/14/00	1999-037P-01	Review of the Effect of Automation on TVA Dam Security	EX 2 high
04/20/00	1999-037P-02	Review of TVA Police Incident Data for Hiwassee Plant Group Dams	EX 2 high
07/14/99	1999-048F	Review of Security Over Sensitive Information on TVA's Intranet and Internet Sites	EX 2 high
09/25/06	2006-034T-01	Security of TVA's Network Perimeter - Blind Penetration Testing	EX 2 high
10/23/06	2006-034T-02	Security of TVA's Network Perimeter - Blue Level Testing	EX 2 high
09/21/06	2006-035T	Assessing TVA's Efforts to Protect Sensitive Information	EX 2 high
08/09/07	2007-11132	SOX 404 Readiness Testing - Nuclear Decommissioning Trust Investment Funds	N - EX 2 high; EX 5 delib & govt confidential commercial
02/14/02	2001-076F	Review of TVA's Dam Safety Inspection Process	newer review available on OIG website [oig.tva.gov] 2008 Reports
08/17/04	2004-036F	Concerns Resolution Program - Sequoyah Nuclear Plant 2004	newer review available on OIG website [oig.tva.gov] 2006 Reports
06/26/06	2006-021F	Green Power Accreditation Report - 2005	newer review available on OIG website [oig.tva.gov] 2009 Reports
01/07/03	2002-048C-02	Pinkerton Government Services Inc. - Qualifications	no longer have contract security
09/26/06	2006-032T	Physical Security Review of Iron Mountain	no longer have records at Iron Mountain

TVA Office of the Inspector General Audit Report 1999-025P

Review of TVA's Current Arrangement for Meeting Personnel Ground  
Transportation Needs

30-January-1999

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## **APPENDICES**

- A. SUMMARY OF ADJUSTMENTS TO SSFT'S FY 1996 COSTS
- B. SURVEY RESPONSES FROM DRIVERS WHO RENTED ENTERPRISE VEHICLES (VALID PERCENTAGES)

- C. SUMMARY OF SURVEY RESPONSES FROM DRIVERS WHO RENTED VEHICLES
- D. SURVEY RESPONSES FROM DRIVERS WHO WERE ASSIGNED VEHICLES (VALID PERCENTAGES)
- E. SUMMARY OF SURVEY RESPONSES FROM DRIVERS WHO WERE ASSIGNED VEHICLES
- F. COMMENTS DATED DECEMBER 18, 2000, FROM THE EXECUTIVE VICE PRESIDENT, ADMINISTRATION

## **EXECUTIVE SUMMARY**

Prior to fiscal year (FY) 1997, TVA's ground passenger transportation needs were predominately met through the Transportation Services (TS) motor pool and assigned vehicle operation. TVA had a fleet of over 1,400 passenger sedans for TVA employees and contractors to use on official travel. Some vehicles were assigned to TVA's motor pool for short-term use while others were assigned directly to TVA's line and service organizations and/or individuals within those organizations for long-term use.

Effective June 2, 1997, TVA contracted with Enterprise Rent-A-Car (Enterprise) to replace the motor pool. The contract was subsequently amended to have Enterprise also provide long-term leased vehicles to replace the TVA-owned assigned passenger sedans. TVA expected this new approach would fulfill TVA's ground transportation needs and result in one-time FY 1997 budget savings of \$21.4 million and a net annual budget savings of over \$11.5 million for FY 1998 and for FY 1999.

Currently, most of TVA's ground transportation needs are met by Enterprise or by travelers using privately owned vehicles. Also, TVA owns some assigned sedans and station wagons; has another contract with CarTemps for short-term rentals; and has a small, informal motor pool for dispatching vehicles for short-term use that are (1) between assignments or (2) designated for surplus.

We assessed the cost effectiveness of the current arrangement for meeting TVA's transportation needs. In our opinion, the current arrangement costs about \$1.6 million more to own and operate annually than would a reestablished motor pool and assigned vehicle operation provided an infrastructure analogous to the operation in FY 1996 can be achieved. Our assessment did not take into consideration (1) the potential startup costs associated with reestablishing a motor pool beyond those costs included in TVA's FY 1996 motor pool cost analysis or (2) the policy implications associated with borrowing funds to purchase a vehicle fleet.

We also surveyed whether the current arrangement meets the ground transportation needs of TVA and contractor personnel as

effectively as the former vehicle arrangement. Of the Enterprise rental vehicle users responding to our survey questionnaire, about 65 percent said TVA's former motor pool operation met their short-term transportation needs better than the current travel arrangement. Among the individuals with assigned vehicles, an average of 47 percent saw no difference between the former and current arrangements. However, of those expressing a preference, about twice as many assigned vehicle users preferred the former arrangement.

We recommend the Executive Vice President, Administration, take action to reduce TVA's ground passenger transportation costs by either:

- Negotiating lower rates with Enterprise,
- Seeking lower rates with alternative vehicle suppliers, or
- Establishing a motor pool operation with an infrastructure analogous to the arrangement TVA had in FY 1996. If the decision is made to recreate a motor pool, consideration should also be given to managing maintenance in-house, as was the case with the FY 1996 motor pool operation.

TVA management disagreed with our findings. Management identified numerous exceptions with the OIG's analysis and said our \$1.6 million in estimated savings was overstated. According to TVA management, the actual savings calculated using our formulas would be about \$100,000. Also, management provided information about action items and initiatives currently underway which are consistent with our recommendation. (See Appendix F.)

Based on management's comments, we made two adjustments to the draft report. We (1) clarified the draft report regarding the extent we considered life cycle costs in our analysis and (2) acknowledged that all maintenance was not performed by TVA personnel in 1996. Neither of these adjustments affected our analysis or our recommendation. Management did not provide additional information that would warrant other changes to the draft report.

## **BACKGROUND**

Prior to fiscal year (FY) 1997, TVA had a fleet of over 1,400 passenger sedans for TVA employees and contractors to use on official travel. About half the vehicles were assigned to TVA's motor pool operation for short-term use, and about half were assigned directly to TVA's line and service organizations and/or individuals within those organizations for long-term use.

In a December 16, 1996, version of the presentation to TVA's Executive Committee, an ad hoc evaluation team, the Strategic Sourcing Fleet Team (SSFT), identified measures TVA could take to reduce travel and travel-related costs. Using costs SSFT developed for FY 1996 as a base for comparison, SSFT concluded TVA could obtain a one-time savings of \$8.7 million and a net annual recurring savings of \$5.2 million by:

- Canceling the planned purchase of 646 vehicles,
- Replacing the motor pool with contract rentals,
- Reducing the number of assigned vehicles by about 20 percent (i.e., 634 vehicles),
- Outsourcing fleet maintenance management, and
- Restructuring Transportation Services' (TS) work activities.

At the request of TVA's Senior Vice President, Procurement, TVA's Office of the Inspector General (OIG) evaluated SSFT's estimates of potential cost savings in a report dated January 30, 1997. We took exception to SSFT using a 15 percent rate as the cost of capital rather than TVA's actual cost of capital, which was about 8.5 percent at that time. Based on the supporting data provided for the December 1996 presentation version, we concluded that replacing "TVA's motor pool with contract rentals is both marginal and highly dependent upon TVA obtaining a daily contract rental rate of \$20 for all vehicles."<sup>1</sup>

On March 24, 1997, SSFT presented its final recommendations to TVA's Executive Committee. Subsequent to the OIG's review, SSFT had made several adjustments to the FY 1996 costs, the largest of which were: (1) increasing depreciation costs by

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<sup>1</sup> SSFT had used an informal \$20 rental rate quote in its cost comparisons.

including the effect of the market value increase and/or decrease for the vehicles to be sold in FY 1997 and (2) applying an 8 percent cost of capital rate to the purchase price of the vehicles. Using the adjusted FY 1996 costs, SSFT: (1) projected the changes would result in a total FY 1997 budget decrease of \$21.4 million (i.e., \$2.1 million operations and maintenance (O&M) and \$19.3 million capital impact) and (2) forecasted net annual budget savings of at least \$11.5 million (i.e., \$5.0 million O&M and \$6.5 million capital impact) for FY 1998 and for FY 1999. SSFT's recommendations were to:

- Exit the passenger sedan business (motor pool and assigned) and sell off the sedan assets,
- Contract out the motor pool operation,
- Increase the privately owned vehicle (POV) reimbursement rate from 18 cents to 23.5 cents per mile,
- Establish an executive vehicle allowance program, and
- Establish an ad hoc cross-functional fleet oversight committee to manage TVA's fleet practices and oversee the recommended changes.

TVA subsequently liquidated its motor pool operation and sold many of the assigned passenger sedans. Effective June 2, 1997, TVA contracted with Enterprise Rent-A-Car (Enterprise) to replace the motor pool. TVA expected the alternative to the motor pool would (1) result in more access locations being available to TVA travelers, (2) reduce TS's staffing, and (3) move transportation costs towards a more variable cost structure. The contract was later amended to also have Enterprise provide long-term leased vehicles to replace TVA-owned assigned passenger sedans.

Currently, most of TVA's ground transportation needs are met by Enterprise or travelers' use of POVs. TVA also owns some assigned passenger vehicles and has contracted with CarTemps for short-term rentals. In addition, TS has created a small, informal motor pool (i.e., the "transition" motor pool), operated from the Chattanooga garage, that dispatches vehicles for short-term use that are (1) between assignments or (2) designated for surplus. TS projects TVA organizations will be charged about \$505,000 (excluding fuel) for these dispatches in FY 2000.

In October 1997, consistent with SSFT's suggested changes, TVA contracted with United States Fleet Leasing to provide maintenance and necessary repairs to TVA-owned and leased passenger vehicles. Previously, TVA personnel managed these duties for the agency's motor pool and assigned vehicles, performing some work in-house and using local automotive service providers for other work.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

Our objectives were to (1) assess the cost effectiveness of the current arrangement for meeting TVA's transportation needs and (2) survey whether the current arrangement meets the travel needs of TVA and contractor personnel as effectively as the former vehicle arrangement. To achieve our objectives, we:

- Interviewed (1) TS management to obtain an understanding of TVA's current and past methods and associated costs for providing vehicles, (2) TVA General Accounting personnel to determine how best to extract transportation costs from TVA's computer systems, and (3) TVA Employee Accounting and Information Services personnel to obtain transportation costs reimbursed to employees.
- Reviewed prior reports issued by the OIG involving vehicle transportation to obtain an understanding of the potential issues and cost factors associated with meeting TVA's transportation needs.
- Analyzed the documentation supporting SSFT's March 24, 1997, Executive Committee Presentation to (1) obtain an understanding of the amounts included in the FY 1996 motor pool and assigned vehicle fleet operating costs and (2) estimate the cost to operate a reestablished motor pool and assigned vehicle operation. As shown in Appendix A, we made adjustments to SSFT's FY 1996 data to correct calculation errors and to adjust costing assumptions used by SSFT.<sup>2</sup>

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<sup>2</sup> FY 1996 was the last full year a motor pool and assigned vehicle operation existed at TVA. We used SSFT's March 24, 1997, data as a foundation to estimate the cost of a reestablished motor pool and assigned vehicle operation. This data included detailed cost components and, after adjustment, was reasonably consistent with costs we established in prior audits.

- Compared SSFT's recalculated FY 1996 cost data supporting the March 24, 1997, presentation, after adjusting for inflation, to TS's cost data<sup>3</sup> for FY 1999 to evaluate the economics of TVA's decision to contract out the motor pool function. Cost factors evaluated included rental charges, motor pool costs, and POV reimbursements. We used the FY 1996 cost of capital used by SSFT in the March 1997 presentation (i.e., 8.0 percent) in our evaluation. Also, we excluded fuel costs from our analysis because we believed the costs would not vary significantly whether the vehicles were supplied by TVA or a vehicle rental company.
- Compared SSFT's recalculated FY 1996 cost data supporting the March 24, 1997, presentation, after adjusting for inflation, to TS's cost estimates for FY 2000 to assess the operational cost effectiveness of the current arrangement in comparison to a reestablished motor pool and assigned vehicle operation. We used TVA's cost of capital as of February 16, 2000 (i.e., 7.49 percent) in our evaluation.
- Reviewed the results of 12 surveys conducted by TS of TVA's Enterprise renters from June 1997 through November 1999 to obtain (1) a perspective as to whether Enterprise was effectively meeting customer needs and (2) insight useful for designing our questionnaires.
- Reviewed the results of two surveys conducted by TS of TVA's motor pool users in September 1996 and November 1996 to obtain a perspective as to whether the agency's motor pools had effectively met users' needs.
- Utilized the services of the University of Tennessee's Management Development Center to develop and evaluate survey questionnaires pertaining to vehicle use, maintenance, availability, customer support, etc.
- Randomly selected 500 individuals to send survey questionnaires from the population of 4,568 TVA personnel, including contractors, who rented Enterprise vehicles through July 21, 1999. The 500 individuals were asked two questions to enable an assessment of whether they had sufficient experience to comment on the impact of TVA's

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<sup>3</sup> Although we assessed the reasonableness of TS's cost data, we did not review the underlying data.

decision to eliminate the motor pool and contract with Enterprise. For those with sufficient experience, we asked 23 additional questions and provided an opportunity for narrative comments.

We received 273 responses wherein the respondents had experience with both Enterprise and the former TVA motor pool. We obtained their views concerning the use of Enterprise provided vehicles as compared to vehicles previously provided by TVA. Our sample was designed to provide 95 percent confidence that the sample results would vary from the actual population results by no more than 5 percent. Not all 273 respondents answered each of the 23 questions in a quantifiable manner. We used the complete and quantifiable responses for each question to calculate the percentages reported within this report. Such calculations are referred to as “valid percentages.”

- Took reasonable steps to identify all individuals who had a leased passenger vehicle assigned for their exclusive use as of July 21, 1999. We submitted questionnaires to these 177 individuals to obtain their views concerning the relative benefits of using Enterprise vehicles as compared to TVA-owned vehicles. Individuals with vehicles assigned directly to them were asked two questions to enable an assessment of whether they met our survey criteria of (1) currently having an assigned vehicle and (2) having an assigned vehicle at least six months prior to the motor pool being eliminated.

We received 89 responses that met our survey criteria. For these, we asked 18 additional questions and gave each respondent an opportunity to provide narrative comments. In this report, the results of the 18 questions are based on “valid percentages.”

- Surveyed the nine TVA employees responsible for organizational transportation-related issues as of November 19, 1999. We received nine responses, but only five respondents met our survey criteria of occupying their position prior to the motor pool being eliminated. Also, the five respondents did not answer some of the survey questions. Accordingly, the organizational survey results are not addressed in this report because the limited information obtained was insufficient for drawing conclusions.

Our assessment did not take into consideration (1) the potential startup costs associated with reestablishing a motor pool beyond those costs included in the SSFT's original FY 1996 motor pool cost analysis or (2) the policy implications associated with borrowing funds to purchase a vehicle fleet.

This audit was performed in accordance with generally accepted government auditing standards.

## **FINDINGS**

The current arrangement for meeting the ground transportation needs of TVA and contractor personnel costs about \$1.6 million more to own and operate annually than would a reestablished motor pool and assigned vehicle operation provided an infrastructure analogous to the operation in FY 1996 can be achieved. As for whether the current arrangement meets the business travel needs of TVA and contractor personnel as effectively, our survey results generally indicated that users of:

- Enterprise rental vehicles believed the motor pool concept better met their needs.
- Assigned vehicles, when expressing a preference, generally preferred TVA's former arrangement to the current one.

## **OVERVIEW OF SHORT-TERM COSTS**

The costs of meeting TVA's short-term transportation needs were about 5 percent higher in FY 1999 than FY 1996,<sup>4</sup> even though associated mileage decreased 15 percent. In 1999 dollars, the cumulative effect of these changes resulted in the cost per mile increasing about 24 percent, from 19.5 to 24.2 cents, while the average mileage per TVA employee increased only 3 percent.

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<sup>4</sup> We compared TS's actual FY 1999 costs to the FY 1996 short-term travel costs from SSFT's March 24, 1997, presentation support. To enable an effective comparison, the FY 1996 costs were (1) adjusted as described in Appendix A and (2) escalated to FY 1999 dollars using the consumer price index.

As shown in Figure 1, the total cost of meeting TVA's short-term transportation needs increased from \$4.8 million in FY 1996 to \$5.1 million in FY 1999, or about 5 percent in 1999 dollars.<sup>5</sup>

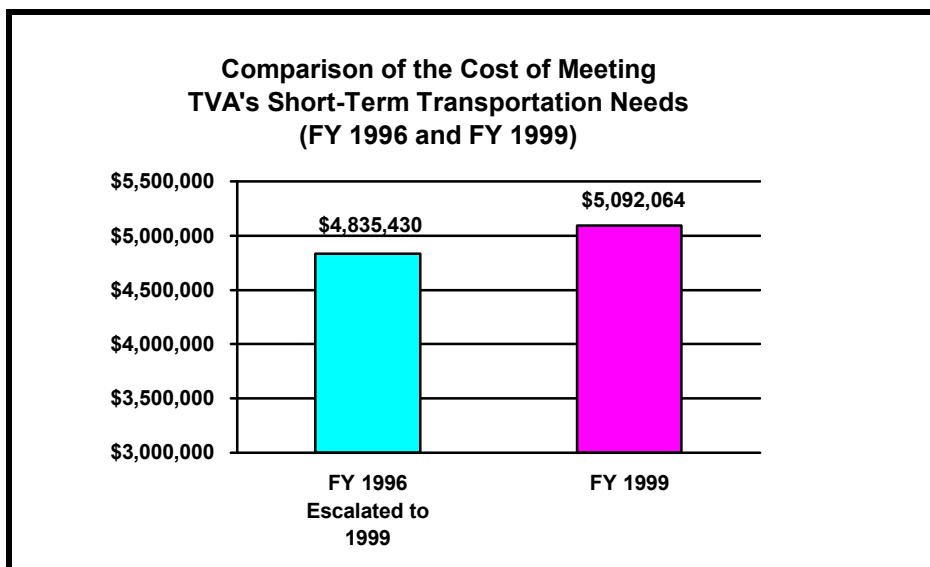


Figure 1

Conversely, both the number of TVA employees and the total mileage decreased significantly. The workforce decreased 17 percent from an average of 16,425 employees in FY 1996 to 13,554 in FY 1999 as shown in Figure 2. Similarly, the total mileage decreased 15 percent from 24.8 to 21.0 million miles as shown in Figure 3.

<sup>5</sup> This comparison did not include fuel costs, transition pool costs, the costs for CarTemps rentals and other vehicle rentals paid with TVA-issued credit cards, or rentals reimbursed directly to travelers.

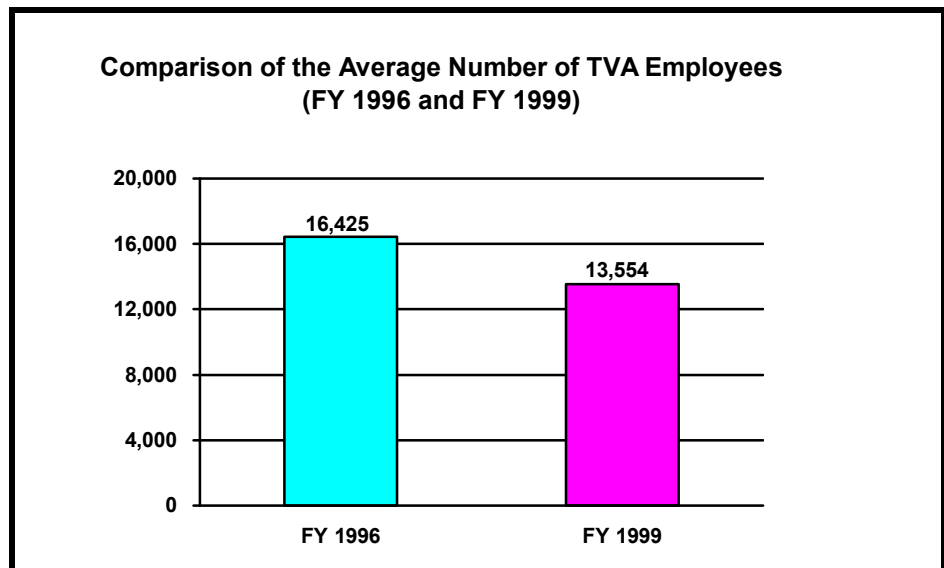


Figure 2

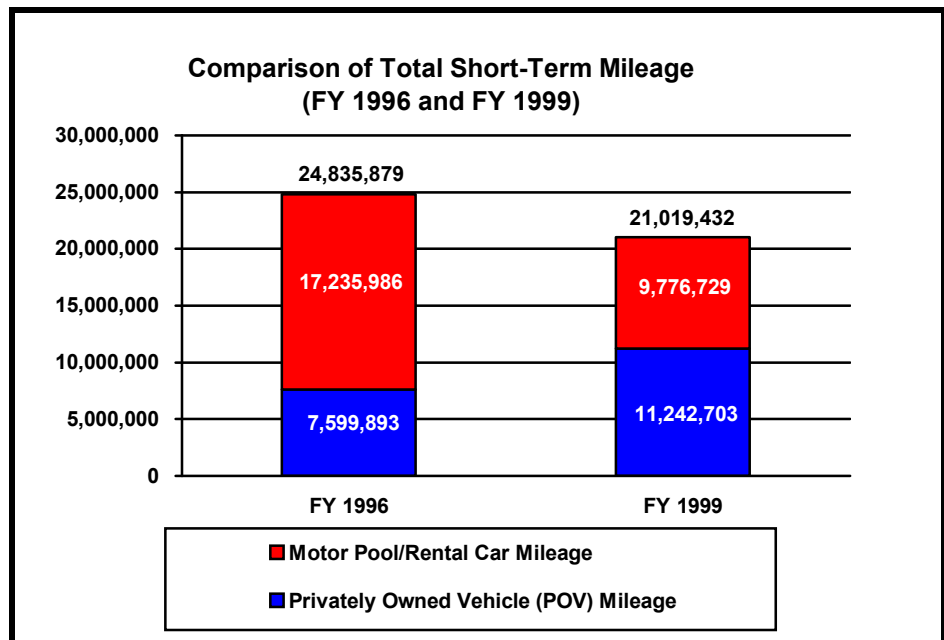


Figure 3

The nature of the miles driven also changed significantly as illustrated in Figure 3 above. Use of POV increased about 48 percent from 7.6 to 11.2 million miles. This increase was offset by the FY 1999 rental car mileage which was about 43 percent lower than the FY 1996 motor pool mileage.

The average mileage per TVA employee remained relatively constant, increasing just 3 percent as illustrated in Figure 4.

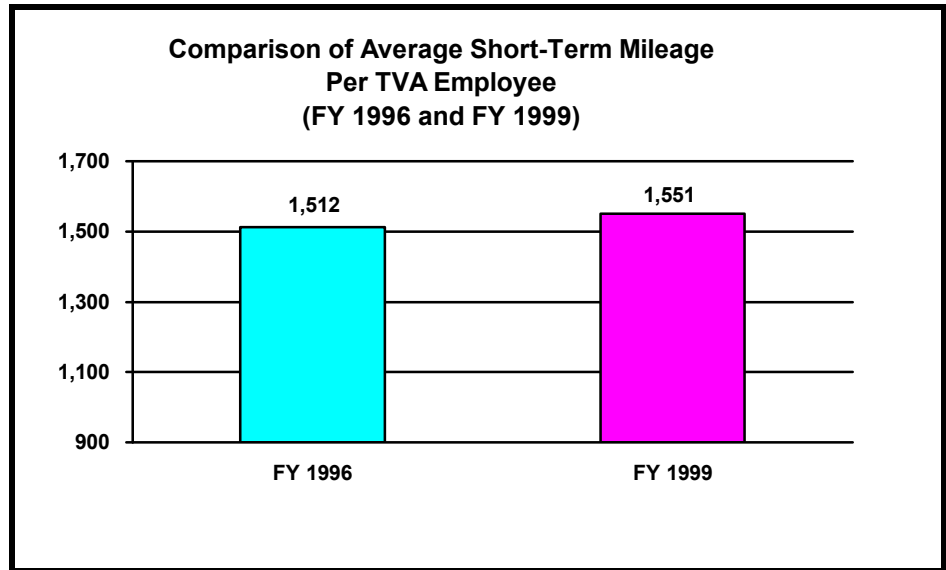


Figure 4

## COMPARISON OF COSTS

We estimate TVA would save about \$1.6 million annually by using a reestablished motor pool and assigned vehicle operation provided an infrastructure comparable to the arrangement in FY 1996 can be achieved.<sup>6</sup> The savings would consist of:

- \$794,000 by TVA reestablishing a motor pool operation to replace the rental arrangement and the need met by the “transition” motor pool.
- \$464,000 by TVA acquiring and maintaining assigned vehicles in conjunction with a reestablished motor pool rather than predominantly using leased vehicles which are maintained through a contractor.

<sup>6</sup> We used SSFT’s March 24, 1997, data as a foundation to estimate the cost of a reestablished motor pool and assigned vehicle operation. We adjusted the SSFT data as described in Appendix A. The adjusted FY 1996 costs were escalated to FY 2000 dollars using the consumer price index.

- \$331,000 by TVA reimbursing for POV mileage based on the cost of operating a reestablished motor pool rather than using TVA's recently approved POV reimbursement rate.

**Rental Vehicles and Transition Pool<sup>7</sup>**

Excluding fuel, the estimated average daily cost to TVA of renting an Enterprise vehicle in FY 2000 was \$31.97. This amount consisted of an average Enterprise charge of \$30.97 and a TS cost allocation of \$1.00 to cover administrative costs.

We assessed the cost effectiveness of the current short-term rental arrangement by comparing the current average daily vehicle cost to what the average daily cost would be using a reestablished motor pool operation. To estimate the current cost of a motor pool operation for comparative purposes, we:

- Used SSFT's support for the FY 1996 cost data presented to TVA's Executive Committee on March 24, 1997, after applying the adjustments described in Appendix A.
- Assumed a 7.49 percent cost of capital rate to reflect the average of TVA's February 2000 bond issue.<sup>8</sup>
- Applied a cumulative 7.7 percent Consumer Price Index (CPI)<sup>9</sup> inflationary adjustment to bring the FY 1996 dollars to FY 2000 dollars.

Using this data, we estimated the cost to operate a reestablished motor pool would be about \$24.67 per vehicle per day in 2000 dollars.

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<sup>7</sup> The FY 2000 amounts used in our calculations for rental vehicles and the transition pool are TS's estimates which are based on TVA's actual rental and transition pool experience for the first three months of FY 2000.

<sup>8</sup> As previously noted, SSFT's March 24, 1997, analysis assumed a 8.0 percent rate as the cost of money.

<sup>9</sup> The adjustment covered 3½ years from fall 1996 to spring 2000. We used the CPI that was based on average prices paid by all urban consumers for the U.S. Department of Labor standardized collection of goods and services. We did not use the index based on prices for new vehicles in southern urban centers which showed a slight decline from 1996 to 1999. Use of that index would have resulted in a greater savings projection.

We calculated TVA could save \$654,000 annually by using a reestablished motor pool to meet short-term travel needs rather than using Enterprise. Our calculation was based on TS's estimate that the total rental day usage in FY 2000 would be 89,492. The savings projection was based on the difference in daily rates of \$31.97 and \$24.67 times 89,492 rental days.

In a related matter, TVA uses a "transition" motor pool to augment its short-term transportation needs. TS currently charges TVA organizations an average of \$34.12 per rental day for vehicles dispatched from the transition motor pool. In our opinion, a reestablished motor pool would save TVA an additional \$140,000 annually through improved economy of scale. Our calculation was based on TVA's estimate that there would be 14,796 rental days associated with the transition pool in FY 2000. The savings projection was based on the difference in daily rates of \$34.12 and \$24.67 times 14,796 rental days.

The combined savings of both issues would be \$794,000 (i.e., \$654,000 plus \$140,000).

### **Assigned Vehicles**

Using the supporting documentation for SSFT's March 24, 1997, presentation, as adjusted in Appendix A, the average annual cost to own, operate, and maintain an assigned passenger vehicle (i.e., the operating costs) would be \$3,432.<sup>10</sup>

As of September 30, 1999, TVA had 573 assigned passenger sedans and station wagons. Of these, 187 were owned by TVA, and 386 were leased from Enterprise. According to data provided by TS, the operating costs for TVA's 187 assigned vehicles averaged about \$3,722 annually in 2000 dollars.<sup>11</sup> The operating costs for the 386 assigned leased vehicles averaged about \$4,494 annually.

We compared TS's inflation adjusted FY 1996 operating costs for the assigned passenger vehicles to TVA's expected cost experience for FY 2000. In summary, we found the current

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<sup>10</sup> We used the CPI that was based on average prices paid by all urban consumers for the U.S. Department of Labor standardized collection of goods and services to bring the 1996 costs forward to the year 2000.

<sup>11</sup> We used the CPI that was based on average prices paid by all urban consumers for the costs of maintenance and repair for the period March 1999 to March 2000.

arrangement for meeting travel needs was about \$464,000 higher annually than the 1996 arrangement. Specifically:

- TVA-owned vehicles were about \$54,000 higher than the 1996 arrangement (i.e., \$3,722 less \$3,432 times 187 vehicles). The current cost of the TVA-owned vehicles is higher primarily due to the higher maintenance costs associated with these older vehicles.
- Leased vehicles were about \$410,000 higher than the 1996 arrangement (i.e., \$4,494 less \$3,432 times 386 vehicles).

### **POV Reimbursement<sup>12</sup>**

Effective May 1, 2000, TVA increased its POV reimbursement rate to 29.6 cents per mile. In establishing the new rate, TVA considered the average POV miles driven daily by TVA business travelers, daily cost of renting a car from Enterprise, average miles per gallon, and fuel cost.<sup>13</sup>

By comparison, we believe TVA could establish, operate, and maintain a motor pool analogous to the 1996 motor pool at a cost of about 25.9 cents per mile, or 3.7 cents per mile less than the currently approved POV reimbursement rate. Using TS's estimate that TVA and contractor personnel will be reimbursed for 9,039,780 POV miles in FY 2000,<sup>14</sup> a reestablished motor pool would save about \$331,000 annually in POV costs by generally limiting POV reimbursement to the cost of operating and maintaining the motor pool (i.e., mileage rate difference of 3.7 cents times 9,039,780 miles).

In our opinion, limiting reimbursement to TVA's potential cost of operating and maintaining a motor pool would be reasonable and fully consistent with TVA's historical practice. Prior to contracting with Enterprise, TVA's practice was to (1) encourage employees to use the motor pool and (2) generally limit POV reimbursement to the cost of operating and maintaining the motor pool. The POV reimbursement rate TVA most commonly used was "based on the fully-loaded average cost of operating a Government

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<sup>12</sup> Unlike previous issues discussed in this report, the POV reimbursement rates are calculated using fuel costs.

<sup>13</sup> *Mileage Reimbursement Rate*, TVA Chief Administrative Officer, April 20, 2000.

<sup>14</sup> Estimate was based on TVA's actual POV mileage for the first three months of FY 2000.

vehicle” which has historically been based on the cost of TVA operating a motor pool.

An argument could also be made that the recently approved POV reimbursement rate of 29.6 cents per mile is too low because the rate is not representative of TVA’s actual cost of doing business with Enterprise. TVA’s calculation assumed an Enterprise vehicle rental cost of \$28.99 per day, representing the average of the two most commonly rented classes of Enterprise sedans. However, as previously noted, TS’s estimate of the average daily short-term rental cost from Enterprise for all vehicle classes was \$30.97. This would equate to about 31.0 cents per mile based on TVA’s estimated POV mileage for FY 2000.<sup>15</sup>

## TRAVELER SURVEYS

We obtained survey responses from 362 TVA and contractor personnel who had traveled using TVA-provided transportation to obtain their views about the effect of TVA’s decision to eliminate the motor pool and contract with Enterprise for vehicles. Of the Enterprise rental vehicle users responding to our survey questionnaire, about 65 percent said TVA’s former motor pool operation met their short-term transportation needs better than the current travel arrangement. Among the individuals with assigned vehicles, an average of 47 percent saw no difference between the former and current arrangements. However, of those expressing a preference, about twice as many assigned vehicle users preferred the former arrangement.

### Enterprise Renters

To identify individuals who had used Enterprise and TVA’s former motor pool for short-term travel, we requested 500 TVA and contractor employees who had used Enterprise rentals for short-term travel to respond to a questionnaire. For those who had experience with both modes of travel, we asked additional questions to obtain their views on the effect TVA’s decision to eliminate the motor pool had on the renter’s job performance,

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<sup>15</sup> If TVA reimbursed POV use at a rate of 31 cents per mile rather than the currently approved 29.6 cents per mile, the annual POV savings associated with using a reestablished motor pool would be about \$459,000.

convenience of use, problem resolution, and overall customer satisfaction.

We received responses from 273 TVA and contractor personnel surveyed who had experience with both Enterprise and the former TVA motor pool (see Appendices B and C). Generally, the respondents believed TVA's former motor pool operation met their needs better than the current rental arrangement. Of those responding to the questionnaire:

- 73 percent expressed greater overall satisfaction with the motor pool.
- 61 percent said my "ability to do my job" was better using the motor pool.
- 72 percent said vehicle availability was better with the motor pool.
- 82 percent said the time required to pick up and drop off vehicles was less with the motor pool.

With regard to vehicle quality, the respondents generally believed there was no material difference between TVA-owned and rental vehicles. In two areas, some responses were in line with goals TVA envisioned in establishing the rental arrangement. Of those responding to the survey questionnaire:

- 12 percent said their own travel had decreased due to TVA's decision to rent passenger vehicles.
- 16 percent said they had increased their use of alternatives, such as carpooling, telephone calls, and video conferencing due to TVA's decision to rent passenger vehicles.

Of the 273 respondents, 160 provided written comments. The two most cited areas of concern were (1) Enterprise's practice of charging a daily rate rather than just charging for a 24-hour period and (2) the increased time associated with picking up and dropping off rental vehicles. Specifically:

- 23 respondents indicated TVA was incurring additional rental costs by paying Enterprise for rentals based on a daily rate rather than a 24-hour period rate. For instance, a one-day trip could result in three daily rental charges if the vehicle

was picked up the evening before the trip and the renter returned after Enterprise closed the day of the trip.<sup>16</sup> This concern was alleviated to some extent in December 1999 when Enterprise began allowing afternoon pickups with rental charges beginning the following day.

- 24 respondents indicated the switch to Enterprise had resulted in an increase in the time required to pick up and drop off vehicles. Of those who provided an estimate, the time required to pick up or drop off an Enterprise rental vehicle ranged from 30 minutes to 2 hours as compared to 10 to 15 minutes when TVA had its motor pool operation.

Our rental vehicle survey results were generally consistent with the results of surveys conducted by TS both before and after the motor pool was eliminated. Specifically:

- Between June 1997 and December 1999, TS conducted 12 surveys related to Enterprise staff courtesy, staff professionalism, vehicle availability, correct class of vehicle, timeliness of getting vehicle, quality of vehicle, and overall satisfaction. Each survey included a sample of about 20 users of Enterprise rental vehicles. The most frequently cited concerns pertained to vehicle availability and the process of getting rental vehicles.
- TS conducted two surveys of a total of 634 motor pool users in September 1996 and November 1996 prior to the elimination of the motor pool. The survey questions related to four areas: vehicle reservation staff courtesy and helpfulness, vehicle cleanliness, vehicle working conditions, and motor pool staff courtesy and helpfulness. Responses to both surveys were very similar, ranging from an average 79 percent favorable response regarding vehicle cleanliness to an average 87 percent favorable response for questions about vehicle reservation personnel.<sup>17</sup> In addition, the users provided both positive and negative comments regarding the four question areas.

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<sup>16</sup> Only 5 of the over 60 Enterprise locations in the Valley had after-hours key drops: Knoxville, Chattanooga, Nashville, Muscle Shoals, and Florence. At those locations, vehicles returned before Enterprise opened the following morning did not incur an extra day's charge. All other locations would charge TVA for an extra day.

<sup>17</sup> We did not verify TS's survey response results.

**Assigned Drivers**

We requested 177 TVA and contractor employees who had leased passenger vehicles assigned for their exclusive use as of July 21, 1999, to respond to a questionnaire. We obtained their views on the effect the move to using vehicles leased from Enterprise had on the driver's job performance, convenience of use, problem resolution, and overall customer satisfaction.

We received responses from 89 of the 177 individuals surveyed (see Appendices D and E). On average, about 47 percent of the respondents indicated no difference between TVA's former and current arrangements. Of those that indicated a difference existed, about two-thirds preferred the former arrangement. Of note, almost half of the assigned drivers cited increased difficulty under the current arrangement in obtaining service and maintenance and in identifying vendors authorized to make repairs. Prior to eliminating the motor pool, vehicle service and maintenance were managed primarily by TVA.

Of the 89 respondents, 43 provided narrative comments. Service-related concerns included (1) difficulty in finding service providers who will honor coupons and/or complete all work, (2) logistics problems associated with getting vehicles serviced and the associated time away from TVA work activities, and (3) difficulty in renting a vehicle while service is being performed.

**RECOMMENDATION**

We recommend the Executive Vice President, Administration, take action to reduce TVA's ground passenger transportation costs by either:

- Negotiating lower rates with Enterprise,
- Seeking lower rates with alternative vehicle suppliers, or
- Establishing a motor pool operation with an infrastructure analogous to the arrangement TVA had in FY 1996. If the decision is made to recreate a motor pool, consideration should also be given to managing maintenance in-house, as was the case with the FY 1996 motor pool operation.

## **MANAGEMENT COMMENTS AND OUR EVALUATION**

TVA management disagreed with our findings. Management identified numerous exceptions to the OIG's analysis and said our \$1.6 million in estimated savings was overstated. According to TVA management, the actual savings using the OIG's formulas would be about \$100,000. Also, management provided information on action items and initiatives currently underway which are consistent with our recommendation. (See Appendix F.)

Management's comments and our evaluation are summarized below. Based on management's comments, we made two adjustments to the draft report. We (1) clarified the Objectives, Scope, and Methodology section of the draft report regarding the extent we considered life cycle costs in our analysis and (2) acknowledged in the report that all maintenance was not performed by TVA personnel in FY 1996. Neither of these adjustments affected our analysis or our recommendation. Management did not provide additional information that would warrant other changes to the draft report.

### **MANAGEMENT COMMENTS**

In responding to a draft of this report, TVA management stated the following:

- The OIG's cost analysis did not consider life cycle costs. Management stated, "our sourcing methodology requires the total ownership cost to be evaluated before we could consider reestablishing the motor pool as one of the recommendations of the OIG audit report."
- The savings associated with reestablishing a motor pool and assigned vehicle operation would be about \$100,000 annually using the OIG's formulas, rather than \$1.6 million as asserted by the OIG. According to TVA management, the overstatement was "primarily attributed to the OIG using estimated expenses and rental days for FY 2000, and the understatement of FY 1996 motor pool costs." TVA management stated that its calculations included actual transition pool expenses and rental data for FY 2000 and

“revised motor pool costs in FY 1996 that do not include the OIG’s recommended revisions to the interest rate and forced liquidation assumptions.”

- The decision to implement SSFT’s recommendations had “resulted in reduced capital expenditures, a one-time sales revenue increase, and operations and maintenance [O&M] cost reductions of \$44.9 million.”
- “The payback of the sedan investment would be 6.8 years (\$11 million divided by \$1.6 million) which would not be an acceptable pay back period for any capital investment for TVA.”
- The decision to re-establish a motor pool must include “startup costs and ongoing additional cost of people and facilities.” The outsourcing decision “allowed TVA to more effectively use capital funds” in favor of (1) projects more closely aligned to TVA’s core business, (2) projects with a return higher than borrowing costs, and (3) a reduction in fixed costs of operations.
- “In-house maintenance was not performed by the motor pool personnel in FY 1996. Oil changes and tire repairs were performed at only one of the TVA facilities in FY 1996.”
- The OIG’s survey noted that employees “expressed concern regarding availability and the process for getting vehicles.” Management addressed the availability issue (1) in FY 1996 by supplementing the motor pool with rental vehicles and (2) in FY 1999 by entering into an additional rental contract with another company. Enterprise and other rental companies now allow employees to pick up vehicles the day before needed at no additional charge.

Management further took exception to “several of the cost savings data elements used in the OIG calculations.” Specifically, management challenged our analysis regarding the: (1) cost of fuel, (2) comparison of the cost of meeting TVA’s short-term transportation needs, (3) comparison of short-term miles, (4) transition pool, (5) POV reimbursement, (6) interest rate at 7.49 percent, (7) depreciation of vehicles by age in months, (8) estimated resale percent from prior sales and (9) estimation of Corsica depreciation consistently.

Finally, management identified several initiatives and actions currently under way to reduce costs, improve availability, and educate assigned drivers.

## OUR EVALUATION

Based on TVA management's comments, we made two adjustments to the draft report to (1) clarify the extent we considered life cycle costs in our analysis and (2) acknowledge that all maintenance was not performed by TVA personnel in FY 1996. However, no other changes to the draft report were necessary. Our evaluation of management's comments is detailed below.

### Total Life Cycle Costs

We concur with TVA management that total life cycle costs should be considered in evaluating the merits of reestablishing a motor pool and assigned vehicle operation. However, we disagree with management's statement that "the OIG audit did not take into consideration the total life cycle costs."

We considered total life cycle costs to the same extent that the SSFT study considered these costs in evaluating the costs/benefits associated with the motor pool and assigned vehicle operation. We used SSFT's data and spreadsheets, which included the fully loaded costs for the operation that existed in FY 1996. Rather than recreate the spreadsheets, we corrected errors made by SSFT, made adjustments to more accurately reflect a going concern, and then used the revised spreadsheets to estimate the cost to operate a reestablished motor pool and assigned vehicle operation analogous to that which existed in FY 1996.

Obviously, the infrastructure of a reestablished motor pool operation could differ from that which existed in FY 1996 depending upon TVA's current vehicle needs, location availability, costs, and budget and/or other constraints. This point was conveyed in our draft report where we stated that our assessment did not take into consideration the potential startup costs associated with reestablishing a motor pool. However, we clarified that statement by adding "beyond those costs included in the SSFT's original FY 1996 motor pool cost analysis."

**Estimated Savings**

The difference between our \$1.6 million estimate of savings and TVA management's \$100,000 estimate was based primarily on management:

- Negating the effect the OIG's "forced liquidation assumption" adjustments had on vehicle depreciation and
- Using a higher cost of capital interest rate than was used by the OIG.

Other issues raised by management, such as actual versus estimated usage for FY 2000, would not materially affect our estimated savings calculation.

**Forced Liquidation Assumption**

Whether TVA would save \$1.6 million or \$100,000 annually is predominantly based on different estimates of vehicle resale values. As described in Appendix A, TVA management used a resale value estimate based on returns received during a forced liquidation<sup>18</sup> in 1997, when the return was considerably lower than had been realized in the prior year. Conversely, the OIG based its estimates on resale percentages which were consistent with prior sale results. As explained in Appendix A, our resale value estimate is better for projecting future costs because it is based on TVA's historical practice without undue influence from a one-time aberration.

We also believe our estimate is better because it is consistent with current government cost data. The General Services Administration (GSA) publishes the annual total costs, including fuel, to operate compact sedans. Using GSA's calculation and applying TVA's average annual mileage for assigned compact sedans, the total annual cost for a GSA leased compact sedan would be \$3,686. This is about 6 percent lower than the OIG's

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<sup>18</sup> After eliminating its motor pool operation in 1997, TVA liquidated most of its ground passenger fleet primarily through public auctions over a relatively short period of time. Historically, TVA had received higher return values through a combination of sales to TVA employees and through auctions.

\$3,918 projection of TVA's costs for an assigned sedan, including fuel.<sup>19</sup> TVA may want to consider contracting with GSA, especially considering TVA's contracted rental rates with Enterprise recently increased an average of over ten percent.

#### Interest Rate

TVA management used 8 percent for its FY 2000 projections, which was the same rate SSFT used in its March 1997 presentation. We used 7.49 percent, which was TVA's realized borrowing rate for its February 2000 bond issue. In our opinion, TVA management should have used an updated interest rate when evaluating cost alternatives. While we believe 7.49 percent is a better choice, the impact on the estimated savings would only be about \$100,000.

#### **Impact of Implementing SSFT's Recommendations**

We disagree with TVA management's implication that implementing SSFT's recommendations had benefited TVA \$44.9 million from FY 1997 through FY 2000. This amount consisted of \$33.6 million redirected capital spending and \$11.3 million in implied O&M savings.

#### Redirected Capital Spending

The \$33.6 million in avoided budgeted capital expenditures resulted from:

- Converting capital expenditures to operational expenditures through the process of leasing and renting. Our report shows that the rates to lease and rent from Enterprise resulted in costs that were higher than our calculated rates for the 1996 motor pool and assigned vehicle operation. In our opinion, simply replacing capital expenditures by converting to operational expenditures does not result in avoided costs.
- Reducing the number of fleet vehicles. While reducing the number of vehicles may have given rise to lower overall fleet operating costs, the reduction in passenger vehicle miles was simply in line with TVA's reduction in employment, as discussed in this report. Furthermore, in projecting avoided

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<sup>19</sup> The costs TVA would incur as overhead when leasing GSA sedans are not reflected in this comparison. However, our estimated savings is validated by the GSA schedule provided TVA's administrative overhead costs is 6 percent or less of the total operating costs of the GSA sedan.

capital costs, TVA management (1) inappropriately included avoided capital purchases for work vehicles which had nothing to do with meeting TVA's ground passenger transportation needs and (2) did not recognize TVA incurred a financial statement loss of about \$4.0 million on the sale of compact sedans in 1997.

- Assuming the business conditions did not change from FY 1996 through FY 2000 in estimating capital cost avoidance. As discussed in this report, business conditions have changed considerably over the past several years. The workforce decreased an average 17 percent from FY 1996 to FY 1999. Similarly, the total mileage decreased an average of 15 percent. In our opinion, assuming the same level of budgeted capital expenditures over the four-year period results in inflated cost avoidance.

#### Implied O&M Savings

According to management's data, the \$11.3 million in implied O&M savings resulted from the net effect of:

- POV usage increasing. As discussed in this report, we agree that POV use increased.
- Rental/motor pool costs decreasing due to TVA obtaining favorable rates from Enterprise and reducing the number of rental days. Management incorrectly used a daily rate of \$36.00 in estimating savings for each year. As detailed in Appendix A, the daily rate we calculated for FY 1996 was only \$22.90. This rate, after adjusting for inflation to FY 2000, was \$24.67. With regard to the reduced number of rental days, there were offsetting increases in POV usage. Furthermore, the net mileage was consistent with workforce level decreases over the four-year period.
- Reductions in assigned work vehicles. TVA management included a total of \$4.0 million in work vehicle O&M costs as savings. As previously noted, the work vehicles are unrelated to meeting TVA's ground passenger transportation needs.
- Reductions in assigned sedans. As with avoided capital costs, TVA management assumed business conditions did not change from FY 1996 through FY 2000 in estimating O&M savings for assigned sedans. Also, management

assumed an inflated assigned vehicle cost of \$5,392. As detailed in Appendix A, the annual cost we calculated for FY 1996 was \$3,187. This cost, after adjusting for inflation to FY 2000, was \$3,432.

**Payback Period for Sedan Investment**

TVA management's comments concerning the payback period for a "sedan investment" confuses business valuation requirements for capital investment with the requirements for making a least cost expenditure. Management stated that 6.8 years is an unacceptable payback period for any capital investment for TVA.

Meeting the ground transportation needs of TVA's employees is a necessary cost of doing business. Accordingly, the least cost method for meeting this need should be the primary decision factor. The payback on an investment is not relevant to this analysis.

**Costs to Reestablish Sedan Motor Pools**

As previously noted, we recommended TVA management take action to reduce TVA's ground transportation costs. Three alternatives were listed, one of which was to reestablish a motor pool operation. We agree that startup costs and additional costs of personnel and facilities should be part of management's cost evaluation when choosing among alternatives. In our evaluation, we considered startup costs to the same extent SSFT's study considered these costs in its evaluation. We recognize that new startup and facilities costs could vary significantly from the previous arrangement.

Management's response suggests that a decision to outsource the motor pool through rentals was made, in part, to provide capital expenditures for higher priority projects. However, we do not believe the motor pool decision is necessarily constrained by TVA's restrictions on capital resources. Management could supply vehicles through leases with GSA or another supplier without incurring a large up-front capital expenditure.

We agree with management's actions to promote mini pools within various TVA organizations. These mini pools are equipped with TVA-owned and leased vehicles which have replaced daily rentals without requiring substantial new capital.

**In-House Maintenance**

While we acknowledge that not all fleet maintenance was performed in-house by TVA employees in 1996, we understand TVA employees managed the maintenance, a job that was assumed in October 1997 by USFL (now Associates Fleet Services). Though it had no impact on our analysis, we revised our draft report to reflect management's comments.

**Enterprise Surveys**

We agree that availability and the process for getting vehicles are important to TVA employees. Also, we agree with the actions management has taken in this area.

**Challenges to the OIG's Calculation Methodology**

We have reviewed management's exceptions to our savings analysis. We believe our calculations are valid and provide a reasonable estimate of future costs. Specifically, we disagree with management with regard to the following:

Cost of Fuel

We do not agree with management's assertion that the current cost of operation is understated because the OIG excluded fuel from the projection of FY 2000 costs. Management reasoned that fuel prices have risen more dramatically than the CPI rate used in the projection, and therefore, the OIG's methodology *understated* current total operational costs.

Instead of understating costs, our methodology would tend to *overstate* the estimate of operational costs during a period of dramatically rising fuel prices. Our calculated rates were overstated only to the extent that rising fuel prices disproportionately impact the CPI. However, this difference does not significantly affect our analysis, and we believe our projected rates to be valid despite recent swings in fuel prices. Management, of course, should use updated fuel prices when projecting total current operating costs.

In our opinion, including fuel in the analysis would obscure the comparison of what TVA's costs would be to what the costs are of providing vehicles through daily rentals. The cost of fuel would be the same without regard to who owns the vehicles. Also, we excluded fuel in order to remove the effect of volatile fuel prices from the analysis.

Comparison of the Cost of Meeting TVA's Short-Term Transportation Needs

TVA management is incorrect regarding the source of the data used by the OIG. Contrary to management's assertion, the OIG used the March 1997 SSFT analysis provided by TS as a basis for all projections.

Comparison of Short-Term Miles

To be conservative, we did not include the transition pool when comparing costs and mileage for FY 1996 to those for FY 1999. TVA did not have a transition pool in FY 1996. The FY 1999 transition pool was a small, informal motor pool that dispatched vehicles for short-term use that are between assignments or designated for surplus. It was not purported to be a relied-upon aspect of the way TVA provides short-term vehicles. Our understanding was that the utilization rate for these vehicles is low; thereby, resulting in a higher overhead cost per mile.

We reported that short-term travel costs were higher in FY 1999 than FY 1996 despite a decline in employment. If the transition pool were included, this increase would be even greater.

Transition Pool

We agree that work vehicles should not be included in the analysis. However, even using management's revised data would have a negligible effect on our estimate of savings.

POV Reimbursement

TVA management is incorrect in its assertion that the OIG audit did not take fuel into consideration in any of its comparisons. When analyzing POV costs, the OIG established an estimated daily rate for vehicle costs and then added a fuel cost estimate which was provided by TS. This methodology matches TVA's procedure for establishing a POV rate.

Interest Rate at 7.49 Percent

As previously noted, 7.49 percent is a better rate for projecting FY 2000 costs than 8 percent. Since February 2000, TVA's costs to borrow have fallen even more.

Depreciating Vehicles by Age in Months

The OIG used monthly depreciation instead of daily because TS depreciates vehicles monthly instead of daily. However, had we used actual days to calculate depreciation the difference would have been inconsequential.

Estimated Resale Percent from Prior Sales

Management disagreed with the OIG's assumption that sales returns for vehicles in FY 1995 were better indicators of future sales than returns from FY 1997 sales. As discussed in Appendix A, TVA received an actual return on investment of 61 percent from the FY 1997 sedan sales. The FY 1995 sale averaged a return of 74 percent. The FY 1997 sale was dominated by a forced liquidation due to management's decision to eliminate the motor pool and many of the assigned vehicles. The FY 1995 sale was not subjected to forced liquidation pressures.

As detailed in Appendix A, we used the FY 1995 return rate to estimate future sales because we believe it is more indicative of future conditions. Management noted some current trends that would tend to reduce the resale value of vehicles. Nonetheless, our projection was created to project life cycle costs for vehicles over the long-term. We believe our analysis is further validated by GSA's quoted annual total compact sedan lease costs for FY 2000.

Estimating Corsica Depreciation Consistently

Management disagreed with the OIG's assumption relative to Corsica resale. As discussed in Appendix A, the sales return on purchase price for two-year old Corsicas in FY 1997 was 51 percent. By contrast, two-year old Corsicas returned 74 percent of purchase price in FY 1995. As mentioned previously, the FY 1995 sale was not subjected to forced liquidation pressures. We used the FY 1995 return rate to estimate future sales because we believe it is more indicative of future conditions. Again, our estimate was validated by GSA's quoted annual total compact sedan lease costs for FY 2000.

**Action Items/Initiatives**

We agree with management's efforts to reduce costs, improve availability and educate assigned drivers. We believe the actions stated are consistent with the recommendation from our report.

TVA Office of the Inspector General File No. 2000-032F

Closeout of Review of TVA's Accounts Receivable Writeoff Policy  
Audit 2000-032F

15-February-2000

February 15, 2000

D. LeAnne Stribley, WT 4C-K

CLOSEOUT OF REVIEW OF TVA'S ACCOUNTS RECEIVABLE WRITEOFF POLICY -  
AUDIT 2000-032F

As part of our annual audit plan for fiscal year 2000, we initiated an audit to assess the adequacy of TVA's accounts receivable writeoff policy to ensure the timely writeoff of delinquent receivables.

During our review of TVA's accounts receivable writeoff policy, we determined that TVA maintains delinquent accounts receivable in the subsidiary ledger. However, TVA expenses receivables that are 90 days delinquent through the allowance for doubtful account. Even though TVA's subsidiary ledger contains receivables that have been delinquent for several years, there is no impact on TVA's financial statements because accounts receivable is shown net of the allowance account. Therefore, we do not believe additional audit work is warranted at this time.

We would like to extend our thanks to your staff for their courtesy during this review. If you have any questions, please call Rick Taylor, Auditor, at extension 7321 or Deborah Meyers Thornton, Manager, Financial/ADP Audits, at extension 6058.



Robert L. Thompson  
Interim Inspector General  
ET 4C-K

RLT:JAR

cc: Willard K. Leon, WT 4A-K  
David N. Smith, ET 12A-K  
Robert A. Vincill, WT 4A-K  
Ben R. Wagner, ET 4C-K  
OIG File No. 2000-032F

TVA Office of the Inspector General Congressional Advisory Report  
2001-033F

Selected Power Rate & Cost Issues

14-June-2001

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## **EXECUTIVE SUMMARY**

TVA supplies electricity to 158 local power distributors which serve residential, commercial, and industrial customers in the Tennessee Valley region. TVA also directly supplies electricity to 62 industrial customers and federal agencies. In 1999, TVA and its power distributors generated revenues totaling about \$7.69 billion from the sale of electricity to residential, commercial, and industrial customers.

In a letter dated February 1, 2001, Senator Mitch McConnell of Kentucky requested TVA's Inspector General to review selected issues related to TVA's power rates and costs (see Appendix A). Our objectives included comparing TVA's average power rates and costs to those of 12 large investor-owned utilities,<sup>1</sup> comparing types of costs incurred by TVA to allowable costs of investor-owned utilities, identifying TVA's position on recovering stranded costs<sup>2</sup>, and determining why a disparity exists between the rates TVA charges to distributor and direct-serve customers. Our findings concerning these matters are summarized below.

### **RATE COMPARISON**

The average 1999 revenue per kilowatt hour (kWh) sold by TVA and its distributors was 5.42 cents as compared to an average of 5.88 cents for the investor-owned utilities. The state averages for the investor-owned utilities ranged from a low of 4.30 cents for Kentucky to a high of 6.43 cents for North Carolina. (See page 8.)

### **COST COMPARISON**

The types of costs giving rise to the power rates were similar for both TVA and the investor-owned utilities, but the relative amounts associated with each cost type differed. The cost per kWh generated for TVA and its distributors was either lower or comparable to the utility average in all cost categories except (1) interest and (2) depreciation and amortization. Interest expense was significantly higher than the utility average, primarily due to TVA's \$18 billion nuclear investment and TVA's inability to raise capital through stock issuance. Depreciation and amortization expense was also significantly higher due to the nuclear investment. (See page 8.)

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<sup>1</sup> The 12 utilities we used for comparative purposes were Alabama Power, Appalachian Power, Carolina Power & Light, Duke Energy, Entergy Arkansas, Entergy Mississippi, Georgia Power, Kentucky Power Corporation, Kentucky Utilities, Louisville Gas & Electric, Mississippi Power, and Virginia Electric and Power Company. Each comparison was based on cents per kWh.

<sup>2</sup> Stranded costs occur when a utility moves from a regulated to competitive environment and is unable to recover certain costs because the market price of power will not generate sufficient revenue to recover these costs.

**ALLOWABLE COSTS**

TVA's rate base includes some expenditures that either are not incurred or may not be allowed in the rate base of an investor-owned utility. However, the impact on power rates of these expenditures is minimal. These expenditures, which amount to less than two-hundredths of a cent per kWh of TVA's 1999 sales, included about \$22 million for river navigation and bridge maintenance, advertising, contributions, and providing information to elected officials and stakeholders. (See page 16.)

According to the public service commissions we contacted, not all the investor-owned utilities are responsible for river navigation or bridge maintenance. Also, some public service commissions prohibit investor-owned utilities from including in their rate bases some or all expenditures associated with advertising, legislative advocacy, and donations/contributions.

**STRANDED COSTS**

TVA's Board of Directors does not have a specific policy addressing the recovery of stranded costs when a distributor or direct-serve customer leaves TVA. Instead, TVA relies on its power contracts and Federal Energy Regulatory Commission Order No. 888 for recovery of any stranded costs. TVA has also addressed stranded costs in proposed legislation agreed upon by TVA and the Tennessee Valley Public Power Association. (See page 17.)

**DISPARITY BETWEEN TVA WHOLESALE AND DIRECT-SERVE RATES**

TVA's 1999 average wholesale power rate for distributors was 4.5 cents per kWh as compared to an average rate of 3.0 cents per kWh for TVA's direct-serve customers. TVA's rates for its direct-serve customers were significantly lower than the rates provided to the distributors, because direct-serve customers are predominately industrial customers which (1) are highly reliant on lower cost interruptible power and (2) have more stable and predictable energy requirements. (See page 19.)

**MANAGEMENT'S COMMENTS**

TVA management elected not to provide written comments to a draft of this report. However, we did make revisions, where appropriate, based on informal comments we received from TVA management.

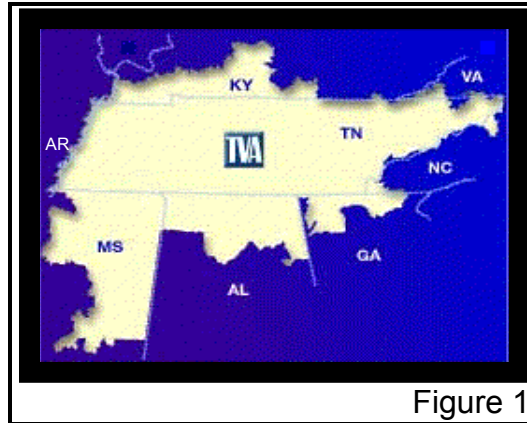
## **BACKGROUND**

The TVA Act of 1933, as amended, provides for TVA to be responsible for flood control, promoting economic development, integrating resource management activities, and providing an ample supply of power at the lowest feasible rates throughout the Tennessee Valley region. Currently, TVA supplies electricity to 158 local power distributors which serve residential, commercial, and industrial customers. These include 108 municipal utilities and 50 cooperatives. TVA also directly supplies electricity to 62 industrial customers and federal agencies. In 1999, TVA and its power distributors generated revenues totaling about \$7.69 billion from the sale of electricity to residential, commercial, and industrial customers.

TVA's Board of Directors has sole authority to establish power rates within the framework of the guidance provided by the TVA Act. The guidance in setting rates is included in Sections 11 and 15d(f) of the TVA Act. Section 11 provides the basis for TVA giving residential customers benefits relating to low hydro power production costs. Specifically, Section 11 states that:

Projects . . . shall be considered primarily as for the benefit of the people of the section as a whole and particularly the domestic and rural consumers . . . and accordingly that sale to and use by industry shall be a secondary purpose.

Section 15d(f) states that TVA should charge rates for power sufficient to provide funds for (1) operations, maintenance, and administrative expenses; (2) payments in lieu of taxes; (3) debt service and a return on the appropriation investment; and (4) other expenses TVA's Board considers desirable for investment in power assets, retirement of outstanding bonds prior to maturity, and additional reduction in the appropriation investment. In addition to the requirements of the Act, TVA must also generate adequate revenues to meet the power system needs and contractual covenants with bondholders.



In 1959, the TVA Act was amended to restrict TVA's service territory to the area served by TVA as of July 1, 1957. This area is typically referred to as the "fence" around TVA (see Figure 1). In addition, the Energy Policy Act of 1992 exempted TVA from having to allow other

utilities to use TVA's transmission lines to transmit power to customers within the TVA service area. This effectively precluded distributors and industries within TVA's service area from purchasing power from other utilities, except for those located along the border of TVA's service area.

In 1997, TVA offered all but 28 of its distributors<sup>1</sup> the option to change their power contracts such that each distributor could terminate the contract after five years with appropriate notice. Under this arrangement, each distributor could be free to purchase power from another utility by October 1, 2007, without paying stranded costs to TVA.

In 2000, TVA and the Tennessee Valley Public Power Association agreed to legislation proposed in the 106<sup>th</sup> Congress. If enacted, the legislation would have removed the "fence" around TVA's service area and given all distributors the statutory right to unilaterally elect to take partial requirements or terminate their power contracts earlier than October 1, 2007, provided TVA received the prescribed notice.

As shown in Appendix B, national utility rates, on the average, have steadily declined in real dollars (i.e., adjusted for inflation) since 1982. Similarly, since 1988, TVA's overall rate has decreased in real dollars.

<sup>1</sup> According to TVA management, 28 distributors had previously been asked to change their contracts to a longer term in consideration for TVA agreeing to the long-term purchase of power from a proposed "Red Hills" generation plant in Mississippi.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

In a letter dated February 1, 2001, Senator Mitch McConnell of Kentucky requested TVA's Inspector General to review selected issues related to TVA's power rates and costs (see Appendix A). Our objectives included (1) comparing TVA's average electric power rates and costs to those of large investor-owned utilities in states bordering Tennessee; (2) identifying expenditures in TVA's rate base that either are not incurred by investor-owned utilities or may not be allowed in the rate base of an investor-owned utility; (3) identifying TVA's position regarding the recovery of stranded costs; and (4) determining why a disparity exists between the rates TVA charges its distributors and direct-serve industrial customers. To achieve our objectives, we:

- Obtained an understanding of TVA's authority for establishing rates by reviewing the TVA Act of 1933, as amended; the Basic TVA Power Bond Resolution of 1960; and selected legal cases.
- Obtained an understanding of TVA's rate setting process by reviewing TVA's 1997 ten-year plan and updates, fiscal year (FY) 2000 budget and rate review package, and pricing information from TVA's Customer Service & Marketing representatives.
- Interviewed representatives of TVA's Chief Financial Officer, Chief Operating Officer, River System Operations & Environment, Customer Service & Marketing, and Office of the General Counsel.
- Contracted with PricewaterhouseCoopers, an independent accounting firm, to obtain information from the public service commissions of six states (Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia) regarding the (1) power rate setting processes for investor-owned utilities, and (2) types of costs that are not allowed in the utilities' rate bases for their respective states.
- Estimated the amount of 1999 TVA costs that investor-owned utilities either would not incur or might be prohibited from including in their rate bases and determined the impact of these costs on TVA ratepayers.

- Obtained 1999<sup>2</sup> electric power revenue, cost, and operating data from (1) TVA's audited financial statements, (2) TVA's annual financial and statistical report on the 158 distributors, (3) the *Annual Report of Public Electric Utilities* for TVA,<sup>3</sup> (4) Federal Energy Regulatory Commission Form 1 for selected investor-owned utilities, and (5) the Research Data International PowerDat database for TVA and selected investor-owned utilities.
- Compared the average 1999 retail rate<sup>4</sup> and primary cost components for TVA and its distributors to the state averages of 12 investor-owned utilities that operate in 7 of the 8 states that border Tennessee. We excluded Missouri from our analysis because only a small portion of the state borders Tennessee. The 12 utilities we used for comparative purposes were Alabama Power, Appalachian Power, Carolina Power & Light, Duke Energy, Entergy Arkansas, Entergy Mississippi, Georgia Power, Kentucky Power Corporation, Kentucky Utilities, Louisville Gas & Electric, Mississippi Power, and Virginia Electric and Power Company. Each comparison was based on cents per kWh.
- Obtained an understanding of how TVA is currently addressing stranded cost recovery by reviewing TVA power contracts and proposed legislation supported by TVA.
- Calculated TVA's 1999 average power rate charged to distributors and direct-serve customers and determined the primary reasons for the disparity.

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<sup>2</sup> The electric power revenue and sales quantity for TVA and its distributors are for the 12-month period ending December 31, 1999. The cost data for TVA and its distributors are for the 12-month periods ending September 30, 1999 and June 30, 1999, respectively. All data for the investor-owned utilities are for the 12-month period ending December 31, 1999.

<sup>3</sup> A TVA-prepared report for the Department of Energy that primarily addresses TVA power operations.

<sup>4</sup> We compared the retail rates for residential, commercial, and industrial customers only. Our comparison did not include retail rates for public street and highway lighting or rates for other sales such as those to other utilities.

## **FINDINGS**

The average 1999 revenue per kWh sold by TVA and its distributors was 5.42 cents as compared to an average of 5.88 cents for the investor-owned utilities. The types of costs giving rise to these rates were similar for both TVA and the investor-owned utilities, but the relative amounts associated with each cost type differed. The cost per kWh generated for TVA and its distributors was either lower or comparable to the utility average in all cost categories except (1) interest and (2) depreciation and amortization. TVA's interest expense was significantly higher than the utility average, primarily due to TVA's \$18 billion nuclear investment and TVA's inability to raise capital through stock issuance. Depreciation and amortization expense was also significantly higher due to the nuclear investment. In response to the other concerns raised by Senator McConnell, our review disclosed:

- TVA's rate base includes some expenditures that either are not incurred or may not be allowed in the rate base of an investor-owned utility. However, the impact on TVA's power rates of these expenditures is minimal, amounting to less than two-hundredths of a cent per kWh of 1999 sales for TVA and its distributors.
- TVA has no specific Board-approved policy for recovering stranded costs<sup>5</sup> when a distributor or direct-serve customer leaves TVA. However, TVA has addressed certain aspects of stranded costs in (1) its 158 distributor contracts and (2) proposed legislation agreed upon by TVA and the Tennessee Valley Public Power Association, an organization which represents TVA's distributors.
- TVA's 1999 average wholesale power rate for distributors was 4.5 cents per kWh as compared to an average rate of 3.0 cents per kWh for TVA's direct-serve customers. TVA's rates for its direct-serve customers were significantly lower than the rates provided to the distributors because direct-serve customers are predominately industrial customers which (1) are highly reliant on lower cost interruptible power

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<sup>5</sup> Stranded costs occur when a utility moves from a regulated to competitive environment and is unable to recover certain costs because the market price of power will not generate sufficient revenue to recover these costs.

and (2) have more stable and predictable load factors<sup>6</sup> and patterns.

## STRUCTURAL DIFFERENCES BETWEEN TVA AND INVESTOR-OWNED UTILITIES

Investor-owned utilities may incur expenditures that can be charged to shareholders rather than ratepayers; whereas, all TVA expenditures must be paid by ratepayers. In addition, the types of costs recovered through the rate bases of TVA and investor-owned utilities are similar. However, the processes used for setting rates differ. Investor-owned utilities:

- Have an additional level of regulatory rate oversight that has the authority to remove unreasonable and/or unallowable costs from the rate base; whereas, TVA's Board of Directors has sole authority for establishing rates.
- Set rates based on cost plus a regulated return; whereas, TVA sets rates based on cost plus a margin determined by the TVA Board consistent with provisions of the TVA Act.
- Seek a reasonable return on equity for their shareholders; whereas, TVA, as a government corporation, is required by the TVA Act to provide power at the lowest feasible rates.

### Oversight

Public service commissions provide an additional oversight function for investor-owned utilities that does not exist within TVA. Planned and/or actual expenditures determined by the commissions to be unreasonable and/or unallowable may be excluded from the rate base. For example, expenses for office space or generation construction determined to be unreasonable would have to be borne by investor-owned utilities' shareholders rather than ratepayers. However, a determination would not be made unless such expenses reach a threshold of materiality.

In contrast, TVA's Board of Directors has sole discretion in setting power rates. Within TVA, unreasonable costs must be identified and eliminated in the budgeting process, or the ratepayers will bear the expense. Although TVA's Board has ultimate rate setting authority, its decisions may be influenced by congressional oversight.

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<sup>6</sup> Load factor is the ratio between the (1) actual energy used and (2) total energy required if demand were always the same as the peak demand.

**Rate Setting Requirements**

The processes for setting power rates differ between investor-owned utilities and TVA. The investor-owned utilities justify rate changes to their public service commissions based on cost requirements determined to be “just and reasonable,” plus a regulated return to shareholders. By contrast, TVA sets its rates based on annual budgeted expenditures, plus a margin determined by the TVA Board of Directors to meet financial tests and other financial objectives in accordance with provisions of the TVA Act. The TVA Act states that power must be sold at rates as low as feasible. In practice, the outcome has not been much different in that TVA and the investor-owned utilities have not significantly changed rates in recent years.

According to TVA management, prior to 1987, TVA established its power rates based on annual budgeted expenditures and targeted its operating income to be 110 percent of interest charges. TVA experienced frequent rate increases in the 1970s and 1980s as debt service requirements increased to finance a large nuclear construction program. In 1987, TVA froze its wholesale rates at the 1987 level and began annually managing costs, debt service, and capital outlays to fall within the projected revenue amounts. In 1997, TVA adopted a ten-year business plan designed to align TVA’s cost of power in 2007 to a level consistent with the forecasted market price of power surrounding TVA’s service territory.

Each year, the TVA Chief Financial Officer prepares a budget and rate review package that includes the projected revenues and costs for the upcoming year, as well as financial forecasts through 2007. This budget and rate review package is presented to the TVA Board for its review and approval. According to TVA management, the process is also used to monitor TVA’s progress towards positioning future costs and rates to ensure market competitiveness by 2007.

**Investor-Owned vs. Government-Owned Corporation**

Investor-owned utilities are financed through shareholder investments, debt, and internally generated funds. Public service commissions generally allow investor-owned utilities to earn a reasonable return on equity. In contrast, TVA, as a wholly-owned government corporation, is financed only through debt and internally generated funds. As compared to investor-owned utilities, TVA earns a low net income as a percentage of its sales and is required by the TVA Act to provide power at the

lowest feasible rates. Unlike the investor-owned utilities, TVA does not have shareholders and does not pay dividends.

## RATE COMPARISON

The average 1999 revenue per kWh sold to residential, commercial, and industrial classes by investor-owned utilities in states bordering Tennessee<sup>7</sup> ranged from a low of 4.30 cents in Kentucky to a high of 6.43 cents in North Carolina. The average 1999 revenue per kWh for TVA and its distributors was 5.42 cents as compared to an average of 5.88 cents per kWh for the investor-owned utilities. (See Figure 2.)

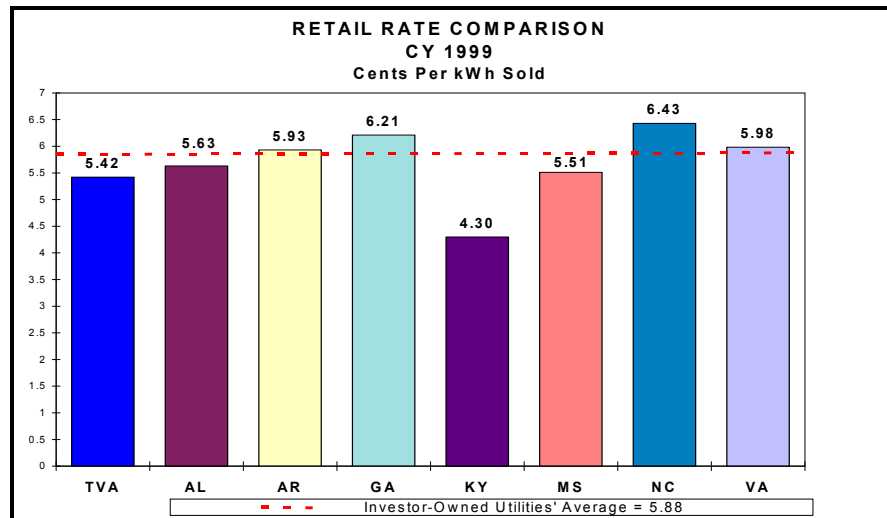


Figure 2

A comparison of average rates by customer class is shown in Appendix C.

## COST COMPARISON

The primary cost types included in TVA's rate base were fuel, purchased power, administrative and general, other operating and maintenance, depreciation and amortization, taxes, interest, distribution, and net income. Both TVA and the investor-owned utilities incur the same types of costs, but the relative costs associated with each type may differ significantly (see Appendix D). These differences are attributable to the influence of the generation mix and costs for fuel, operating and maintenance, and interest.

<sup>7</sup> We excluded Missouri from our analysis because only a small portion of Missouri borders Tennessee.

As shown in Figure 3, about 60 percent of TVA's 1999 costs consisted of (1) interest, (2) depreciation and amortization, and (3) fuel.

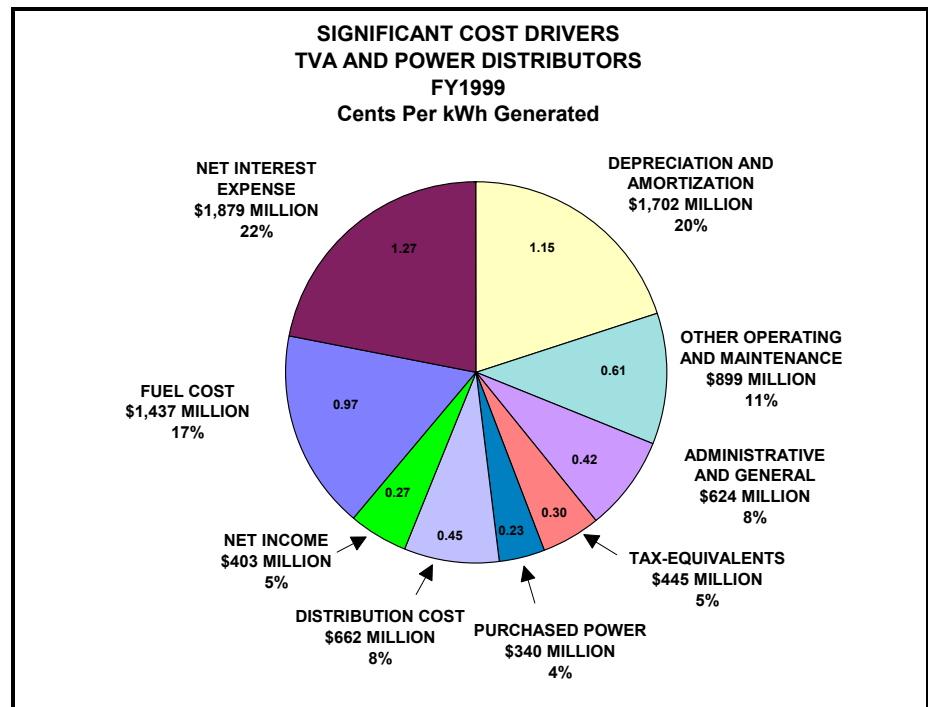


Figure 3

We compared the 1999 costs<sup>8</sup> of TVA and its distributors to similar type costs of the investor-owned utilities by state and found TVA's costs were:

- Higher than the utility average with regard to (1) interest expense, and (2) depreciation and amortization expense.
- About the same as the utility average with regard to (1) distribution cost, (2) administrative and general expense and (3) other operating and maintenance expenses; and
- Lower than the utility average with regard to (1) fuel cost, (2) tax-related expense, and (3) net income.<sup>9</sup>

<sup>8</sup> The distributor data did not include costs classified as fuel or other operating and maintenance. Also, we did not compare "purchased power" costs because there are too many variables surrounding the operational characteristics of buying and selling power in the open market.

<sup>9</sup> Unlike investor-owned utilities, TVA does not pay dividends.

## Interest Expense

As shown in Figure 4, the interest expense per kWh generated for TVA and its distributors was significantly higher than the average for the investor-owned utilities. TVA's interest expense was higher than other utilities primarily due to TVA's (1) large debt resulting primarily from investing in nuclear generating facilities and (2) inability to raise capital through issuing stock.

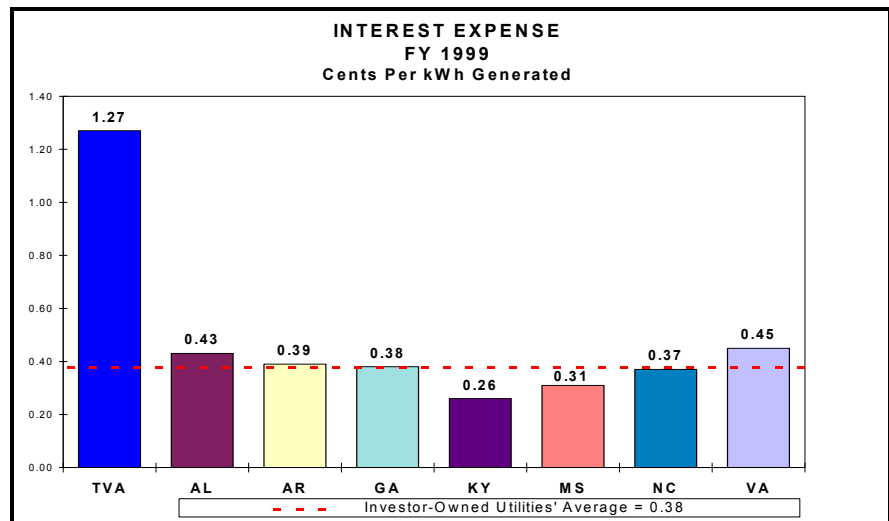


Figure 4

## TVA's Nuclear Investment

As of September 30, 2000, TVA's bond debt totaled \$26 billion. The debt resulted primarily from capital expenditure investments, most of which are attributable to TVA's nuclear power program. The nuclear investment consists primarily of \$11.6 billion in operating nuclear assets (net of accumulated depreciation) and \$6.3 billion in non operating assets which have been classified as deferred plant.

TVA's interest expense resulting from the nuclear investment is disproportionately high in comparison to the interest expense resulting from the fossil fuel investment. However, the nuclear fuel costs are relatively low in comparison to fossil fuel costs.<sup>10</sup>

<sup>10</sup> TVA's \$11.6 billion investment in operating nuclear assets represents 45 percent of TVA's debt, but only 31 percent of TVA's FY 2000 generation. This comparison does not include TVA's \$6.3 billion in deferred plant.

### Sources of Funding

As previously noted, TVA's sources of funding are limited to internally generated funds and debt.<sup>11</sup> In addition to these funding sources, investor-owned utilities also finance a significant portion of their business through the issuance of common and preferred stock. Investor-owned utilities typically pay dividends to owners of common and preferred stock.

### Depreciation and Amortization Expense

As shown in Figure 5, the depreciation and amortization expense per kWh generated for TVA and its distributors is significantly higher than the average for the investor-owned utilities.<sup>12</sup> The primary factor contributing to TVA's higher depreciation and amortization expense was TVA's large investment in its nuclear facilities.

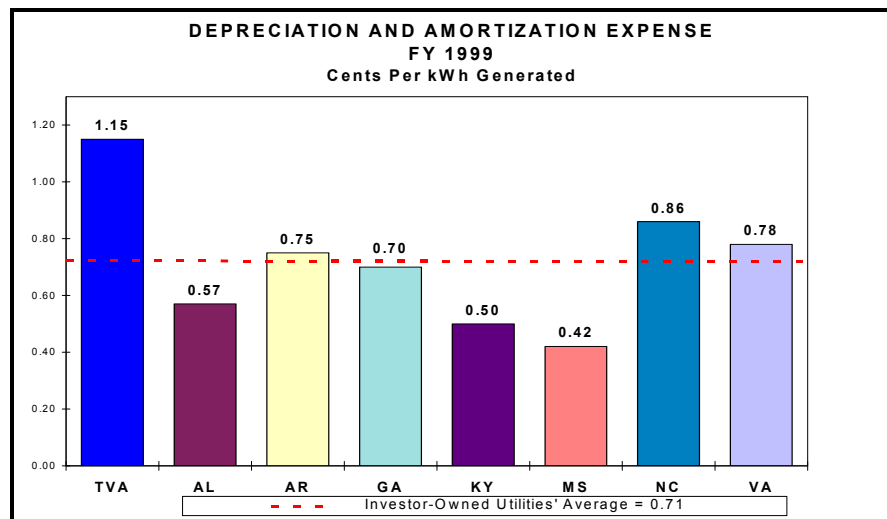


Figure 5

<sup>11</sup> The TVA Act requires TVA to make annual payments to the U.S. Treasury from power proceeds as a return on the appropriations investment in TVA's power system and as a repayment of that investment. During FY 1999, TVA repaid (1) \$20 million of the \$568 million appropriation investment balance and (2) \$37 million as a return on this investment at a computed interest rate of 6.56 percent. Since 1960, TVA's power system has been self-financing and has received no appropriations. (TVA's non-power programs received appropriations through 1999.)

<sup>12</sup> TVA's 1999 expenses included an "accelerated" amortization charge of \$261 million, or 0.18 cents per kWh.

### Distribution Cost

The combined distribution cost per kWh generated for TVA and its distributors was not significantly different than the average of investor-owned utilities. (See Figure 6.)

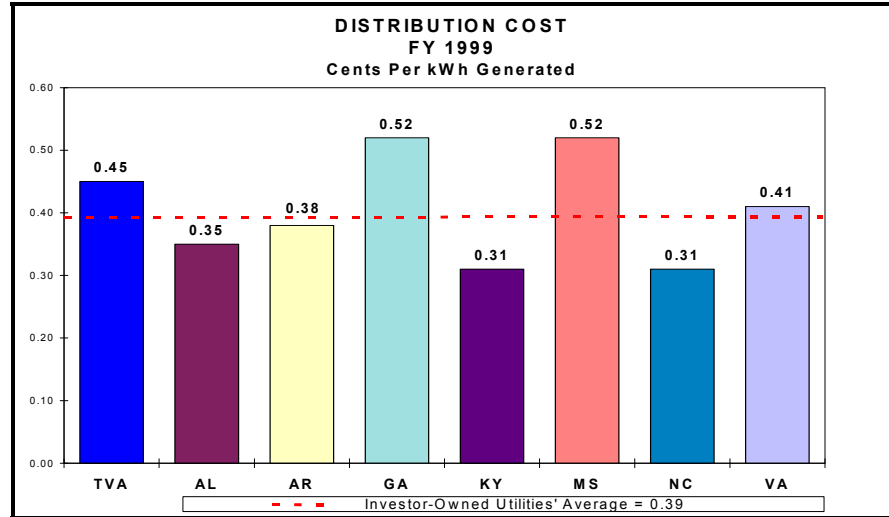


Figure 6

### Administrative and General Expense

The administrative and general expense per kWh generated for TVA and its distributors was about the same as the average of investor-owned utilities (see Figure 7).

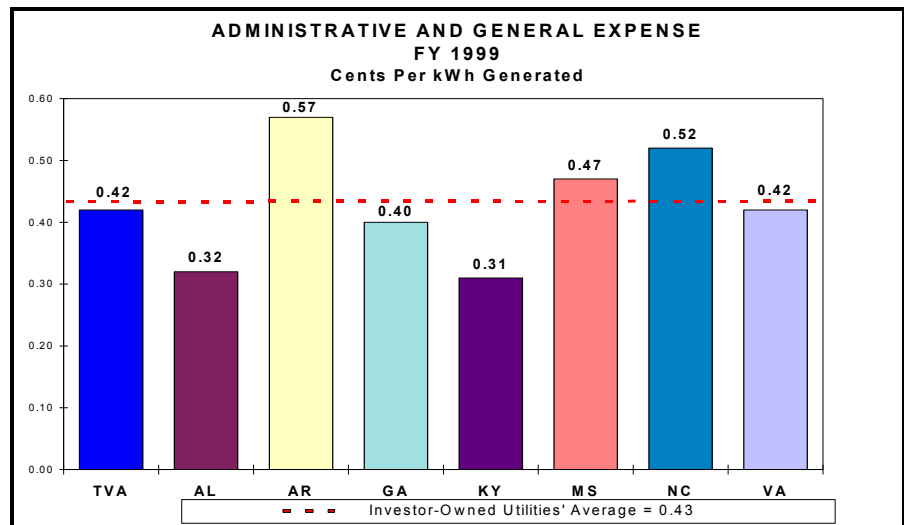


Figure 7

### Other Operating and Maintenance Expenses

TVA's other operating and maintenance expenses<sup>13</sup> per kWh generated were about the same as the average of investor-owned utilities (see Figure 8).

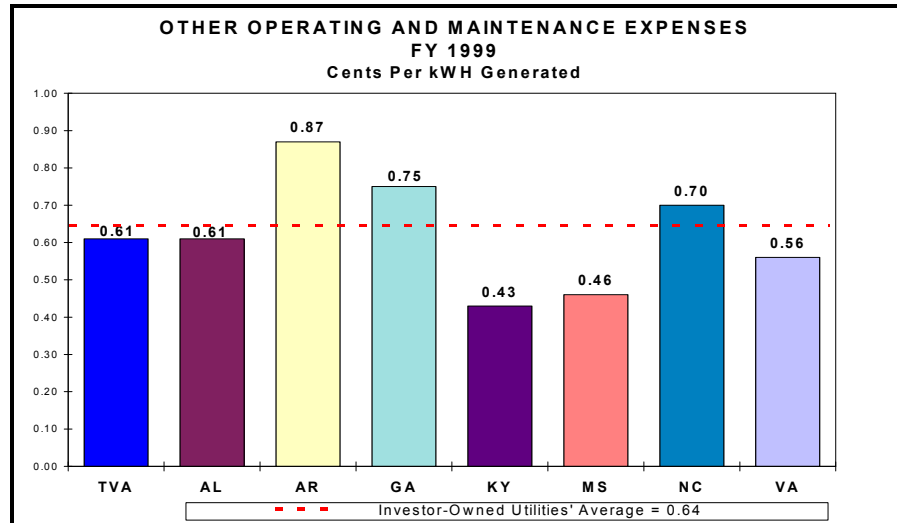


Figure 8

### Fuel Cost

As shown in Figure 9, TVA's fuel cost per kWh generated was lower than the average for the investor-owned utilities. This is primarily due to TVA having (1) lower fossil fuel costs per megawatt hour generated than most of the investor-owned utilities, and (2) a generation mix that includes a higher percentage of both hydro and nuclear power than most of the investor-owned utilities.

<sup>13</sup> For the purposes of this report, other operating and maintenance expenses include all production and transmission costs, except for fuel.

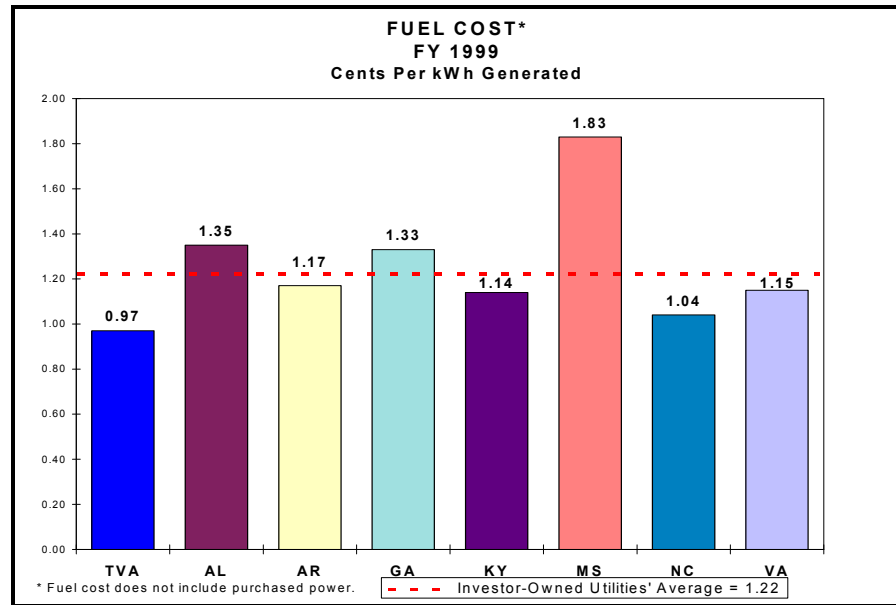


Figure 9

### Tax-Related Expense

As shown in Figure 10, tax-related expense per kWh generated for TVA and its distributors was significantly lower than the average of the investor-owned utilities. TVA's lower tax-related expense was partially due to TVA not incurring federal income taxes. According to TVA management, if TVA were required to pay federal income taxes, its income tax liabilities would be low in comparison to those of investor-owned utilities, due to TVA's relatively low net income amounts.

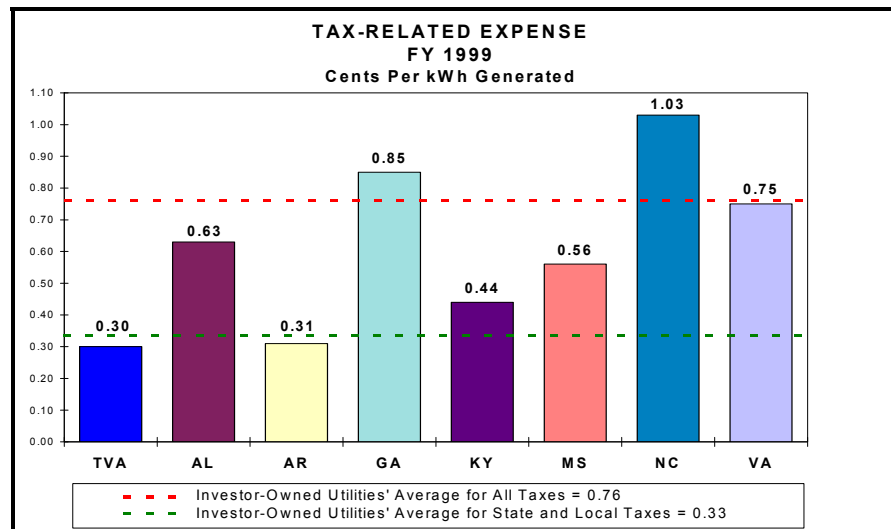


Figure 10

Although TVA is not subject to federal income taxes, the TVA Act requires TVA to make payments in lieu of taxes<sup>14</sup> to state and local governments. As illustrated in Figure 10, the tax payments of TVA and its distributors were comparable to investor-owned utilities' average state and local tax payments during FY 1999.

### Net Income

The net income per kWh generated for TVA and its distributors was significantly lower than the state averages of the investor-owned utilities. TVA is required by the TVA Act to keep its power rates as low as feasible. In contrast, public service commissions allow investor-owned utilities to earn a return on equity, typically ranging from 10 to 12 percent, to enable payment of shareholder dividends and fund other business needs. (See Figure 11.)

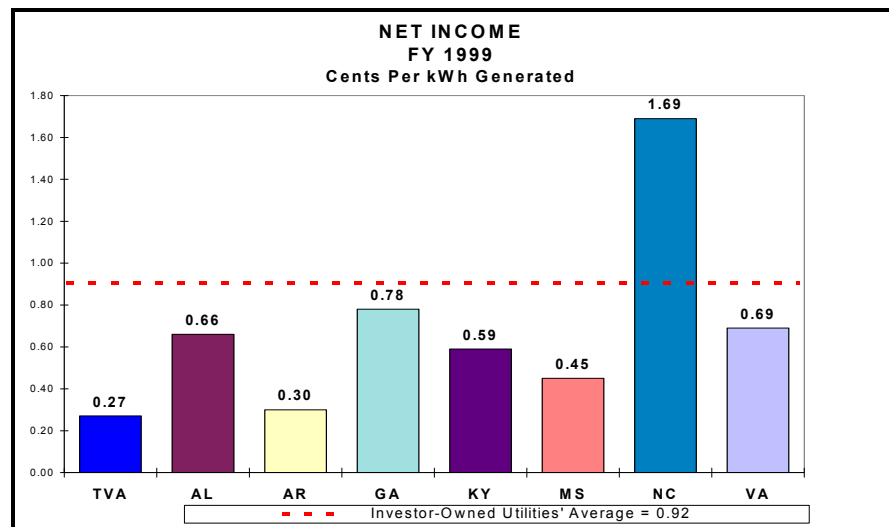


Figure 11

<sup>14</sup> Each month TVA makes payments to state and county governments in eight states. These payments are based on TVA power sales and TVA-owned property in each state. During FY 2000, TVA paid \$308 million in payments in lieu of taxes.

## ALLOWABLE COSTS

The significant types of cost components incurred by TVA and investor-owned utilities in generating and delivering electric power are similar. These costs include interest, depreciation and amortization, distribution, fuel, administrative and general, operating and maintenance, tax-related expense, and net income.

Within these cost components, TVA's rate base includes some expenditures that either are not incurred or may not be allowed in the rate base of an investor-owned utility. However, the impact on power rates of these expenditures is minimal. For 1999, we identified about \$22 million in expenditures that were included in TVA's rate base which some investor-owned utilities would not incur or could be partially or wholly prohibited from including in their rate bases.<sup>15</sup> These expenditures, which amount to less than two-hundredths of a cent per kWh of 1999 sales for TVA and its distributors, included:

- \$6.0 million for river navigation and bridge maintenance,
- \$7.9 million in advertising expenses,<sup>16</sup>
- \$5.2 million in contributions, and
- \$2.7 million for responding to requests and providing information to elected officials and stakeholders.<sup>17</sup>

According to the public service commissions we contacted, not all investor-owned utilities in their jurisdictions are responsible for river navigation and bridge maintenance. In addition, some public service commissions prohibit investor-owned utilities from including in their rate bases some or all expenditures associated with advertising, legislative advocacy, and donations/contributions (see Figure 12).

<sup>15</sup> In addition to these \$22 million in expenditures, we identified \$14.7 million associated with TVA's federally chartered police workforce and \$7.2 million associated with TVA's statutorily mandated Office of the Inspector General. Although the investor-owned utilities do not have federal law enforcement or an Inspector General's office, these utilities do incur investigative, security, and audit costs.

<sup>16</sup> TVA's advertising expenses for FY 2000 increased to \$8.4 million. However, the 2001 budget for advertising was \$2.5 million.

<sup>17</sup> TVA maintains its Governmental Affairs Office in Washington, D.C., and a Valley Relations function in Nashville, Tennessee. The purposes of these organizations are to be responsive to requests generated by stakeholders through educating and informing them of TVA issues and concerns as well as building relationships within organizations and associations which represent the interests of the electric utility industry and elected officials.

EXAMPLES OF EXPENDITURES NOT ALWAYS ALLOWED BY PUBLIC SERVICE COMMISSIONS	
Unallowable Cost	PSC Rules
Advertising	Alabama, Georgia, Kentucky, and Mississippi disallow some advertising costs.
Legislative-advocacy	Alabama and Georgia disallow legislative advocacy expenses.
Donations and contributions	Alabama, Georgia, Kentucky, North Carolina, and Virginia disallow some or all donations and contributions.

Figure 12

## STRANDED COSTS

Stranded costs occur when a utility moves from a regulated to a competitive environment and is unable to recover certain costs because the market price of power will not generate sufficient revenue to recover these costs.

TVA has no specific Board-approved policy for recovering stranded costs when a distributor or direct-serve customer leaves TVA. Instead, TVA relies on its power contracts and Federal Energy Regulatory Commission Order No. 888 for recovery of any stranded costs. TVA has also addressed stranded costs in proposed legislation agreed upon by TVA and the Tennessee Valley Public Power Association.

### Power Contracts

TVA's distributor contracts include a stranded cost provision; whereas, TVA's power supply contracts with direct-serve customers do not directly address the stranded cost issue.

### Distributor Contracts

Of the 158 distributor contracts, 4 contain a waiver of TVA's right to recover stranded costs provided the distributor complies with a 15-year termination clause, 97 contain a waiver of TVA's right to recover stranded costs after September 30, 2007, provided the distributor complies with a 5-year termination clause, and 57 explicitly state that TVA does not waive its right of recovery.

In conjunction with the proposed "Red Hills" generation project in 1996, TVA and 4 distributors in Mississippi agreed to a 15-year rolling contract that provided for TVA to withhold a stranded cost claim against a distributor that subsequently elects to purchase power from an alternative source. Under these power contracts, the distributors must provide TVA with at

least a 15-year notice prior to contract termination. Distributor noncompliance would give TVA legal recourse for recovering stranded costs. The mechanism for recovering stranded costs would presumably be calculated based upon a formula established by the Federal Energy Regulatory Commission Order No. 888.

Since October 1997, TVA agreed to modified 10-year rolling contracts with 97 distributors.<sup>18</sup> In addition to a 5-year termination notice, the modifications included an agreement by the distributor not to exercise its termination rights for a 5-year period. Under this type of contract, which is referred to as the "5+5" contract, the earliest a distributor could begin acquiring power from a source other than TVA would be October 1, 2007. TVA agreed to withhold a stranded cost claim against the distributor if the distributor subsequently elects to purchase power from an alternative source. Like the 4 Mississippi contracts, distributor noncompliance would give TVA legal recourse for recovering stranded costs based on Federal Energy Regulatory Commission Order No. 888.

TVA's other 57 distributors have 10-year rolling contracts. These contracts state (1) nothing in the agreement shall be construed to waive, surrender, or otherwise affect any claim that TVA may have against a distributor upon termination of the power contract for any investment by TVA and (2) the distributor does not acknowledge it has an obligation to TVA for such investment.<sup>19</sup> Under these power contracts, the distributors must provide TVA with at least a 10-year notice prior to contract termination. If one of these distributors began acquiring power from non-TVA sources, the Federal Energy Regulatory Commission would be the tribunal to address and resolve a stranded cost dispute between TVA and the distributor under Order No. 888.

#### Direct-Serve Contracts

TVA's contracts with direct-serve customers do not address stranded costs. However, these contracts include certain minimum bill provisions that provide for a minimum level of cost recovery if the customer ceases to take power before the end of

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<sup>18</sup> This resulted from TVA's 1997 ten-year business plan which, among other things, projected that nearly all deferred costs would be recovered from TVA customers by 2007. Although TVA's current financial forecast does not anticipate TVA recovering all deferred costs by the year 2007, TVA's forecast of future market prices does anticipate TVA recovering all deferred costs in a deregulated market.

<sup>19</sup> For FY 1999, these 57 distributors accounted for 52 percent of TVA's distributor sales.

its contractual commitment. In our opinion, TVA's ability to recover stranded costs from direct-serve customers may depend on legislation yet to be enacted in states where these customers are located.

### **Proposed Legislation**

TVA and the Tennessee Valley Public Power Association agreed to legislation proposed in the 106<sup>th</sup> Congress. If enacted, the legislation would have given all distributors the statutory right to unilaterally elect to take partial requirements or terminate their power contracts earlier than October 1, 2007, provided TVA received the prescribed notice. The proposed legislation would have also eliminated the "fence" and provided TVA a means to sell the power to wholesalers outside the system in the event of such election.

In such cases, the Federal Energy Regulatory Commission would determine the stranded cost liability, if any, of a distributor making such elections using the same rules applicable to investor-owned utilities (i.e., the formula set forth in Federal Energy Regulatory Commission Order No. 888). This proposed legislation would have also prevented TVA from recovering stranded costs from distributors after September 30, 2007.

### **DISPARITY BETWEEN TVA WHOLESALE AND DIRECT-SERVE RATES**

TVA's 1999 average wholesale power rate for distributors was about 4.5 cents per kWh<sup>20</sup> as compared to an average rate of about 3.0 cents per kWh for TVA's direct-serve customers. This rate difference<sup>21</sup> exists because most of the direct-serve customer base is industrial and:

- A significantly higher percentage of TVA's directly served customer load is composed of less-expensive interruptible power as compared to the distributor load<sup>22</sup> and

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<sup>20</sup> According to TVA management, TVA's residential charges were lowered by about \$321 million in FY 2000 through the hydro credit components of wholesale rates. Without this credit, TVA's average wholesale rate to distributors would be higher than the 4.5 cents per kWh average currently being charged.

<sup>21</sup> Like TVA, the average industrial rate for investor-owned utilities is also significantly lower than their average residential rate (see Appendix C).

<sup>22</sup> Some commercial and industrial customers served by TVA distributors received interruptible power.

- Load factors<sup>23</sup> and patterns for TVA's direct-serve industrial customers are more stable and predictable as a group than the loads served by the distributors.

### **Interruptible Power**

An important optional power offering is interruptible power, where customers agree to curtail power usage at the power supplier's request and in return pay a reduced rate. The interruption rights TVA obtains under these interruptible arrangements help TVA (1) avoid building additional generating capacity for short-duration peak loads and (2) manage load extremes. In contrast, the standard power arrangement is firm service and not subject to such contractual curtailment rights.

Both direct-serve and distributor-served industrial customers participate in these interruptible power programs. However, TVA generally limits participation to customers with a minimum load of 5 megawatts. About 55 percent of direct-serve sales are at interruptible power rates compared to only 7 percent of TVA distributor power sales. Consequently, this higher percentage of interruptible sales reduces the average price of sales to direct-serve customers as compared to power distributors.

### **Load Factors and Patterns**

Direct-serve customers are typically large industrial customers with high load factors, flat load profiles,<sup>24</sup> and lower seasonal variation. This usage pattern results in a lower average cost because fixed capacity costs are spread over more kWh of energy use. Distributor loads have a lower load factor, causing the fixed cost to be spread over fewer kWh of energy usage and resulting in a higher average cost. The rate structures reflect these cost differences to serve different usage patterns, again contributing to a lower average price to directly served industries than to power distributors.

<sup>23</sup> As previously noted, load factor is the ratio between the (1) actual energy used and (2) total energy required if demand were always the same as the peak demand. The ideal demand factor is one. This occurs when the energy consumption is constant with no peaks and valleys on the demand curve. As the load factor moves towards zero, it becomes worse for the utility because it means that the peaks and valleys on the demand curve are getting more pronounced. This results in a utility having to build generation plants whose outputs the utility may be able to use only part of the time (unless the excess generation can be sold), or it results in having to purchase power for the peaks. Either of these alternatives can be very expensive.

<sup>24</sup> A flat load profile occurs from a company having an "around-the-clock" operation, resulting in steady power use.

Where most TVA directly served customers are large industrial customers, power distributors have a significant proportion of residential and commercial consumers in their customer mix. These customers are less uniform in their pattern of usage than industrial customers, resulting in a higher cost of service. According to TVA management, the high proportion of these more costly customers in power distributors' customer mix also contributes to the difference in average rates for distributor and direct-serve customers.

## **MANAGEMENT'S COMMENTS**

TVA management elected not to provide written comments to a draft of this report. However, we did make revisions, where appropriate, based on informal comments we received from TVA management.

MITCH McCONNELL  
KENTUCKY

361-A RUSSELL SENATE OFFICE BUILDING  
WASHINGTON, DC 20510-1702  
(202) 224-2541

## United States Senate

COMMITTEES  
RULES AND ADMINISTRATION, CHAIRMAN  
AGRICULTURE  
APPROPRIATIONS  
CHAIRMAN, SUBCOMMITTEE ON  
FOREIGN OPERATIONS

February 1, 2001

Mr. Richard F. Chambers  
Inspector General  
Tennessee Valley Authority  
400 West Summit Hill Drive ET 4C  
Knoxville, TN 37902-1401

Dear Mr. Chambers:

I am writing to request that your office undertake an audit of the TVA's rates and charges to determine how TVA's programs and expense are paid by TVA's distributor and direct serve customers. I hope you will undertake this detailed evaluation and publish a report with your findings.

You may be aware of my interest in increasing TVA's accountability to the ratepayers it was created to serve. It is alarming to me that the area of Kentucky served by TVA pays the highest prices for electricity in my state. TVA's prices are 30 percent higher than other producers in the state. This represents a serious drain on the resources of my constituents. In light of these higher prices, it is disturbing to me to read stories of TVA spending millions of dollars for new office space and other lavish administrative expenses. TVA's unchecked monopoly status has allowed for abuses in the amount of money TVA spends and where it is spent. Because of TVA's unchecked power to set rates and charges, ratepayers are paying for all of TVA's programs whether or not they are essential to power production.

Also, I hope you will pay particular attention to the rate disparity between the rates charged to captive customers like municipal and cooperative distributors and the rates paid by TVA's direct-serve customers. I have heard from numerous ratepayers who are concerned about the rate differential and the potential cost to be borne by captive ratepayers if a direct-serve customer leaves the Valley. In short, I request that you investigate TVA's programming and develop a thorough accounting of expenses for TVA operations to ensure that TVA's customers and Congress have a clear understanding of the programs supported by captive ratepayers. Specifically, I request that you:

- identify the types of costs included in TVA's rate base,
- compare these types of costs with allowable costs of investor-owned utilities,

FEDERAL BUILDING  
241 E. MAIN STREET  
ROOM 102  
BOWLING GREEN, KY 42101  
(270) 781-1673

1885 DIXIE HIGHWAY  
SUITE 345  
FORT WRIGHT, KY 41011  
(859) 578-0188

771 CORPORATE DRIVE  
SUITE 530  
LEXINGTON, KY 40503  
(859) 224-8286

301 SOUTH MAIN STREET  
LONDON, KY 40741  
(606) 864-2026

801 WEST BROADWAY  
SUITE 630  
LOUISVILLE, KY 40202  
(502) 582-6304

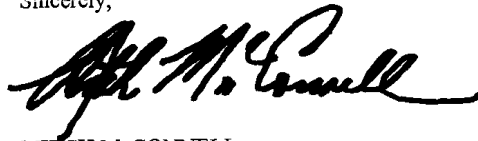
PROFESSIONAL ARTS BUILDING  
SUITE 100  
2320 BROADWAY  
PADUCAH, KY 42001  
(270) 442-4554

Mr. Richard F. Chambers  
February 1, 2001  
Page 2

- provide TVA's justification for significant differences and the impact on ratepayers,
- identify the Board policy related mechanism for recovery of stranded cost when a distributor or direct-serve customers leave the Valley.

Thank you for your attention to this important matter.

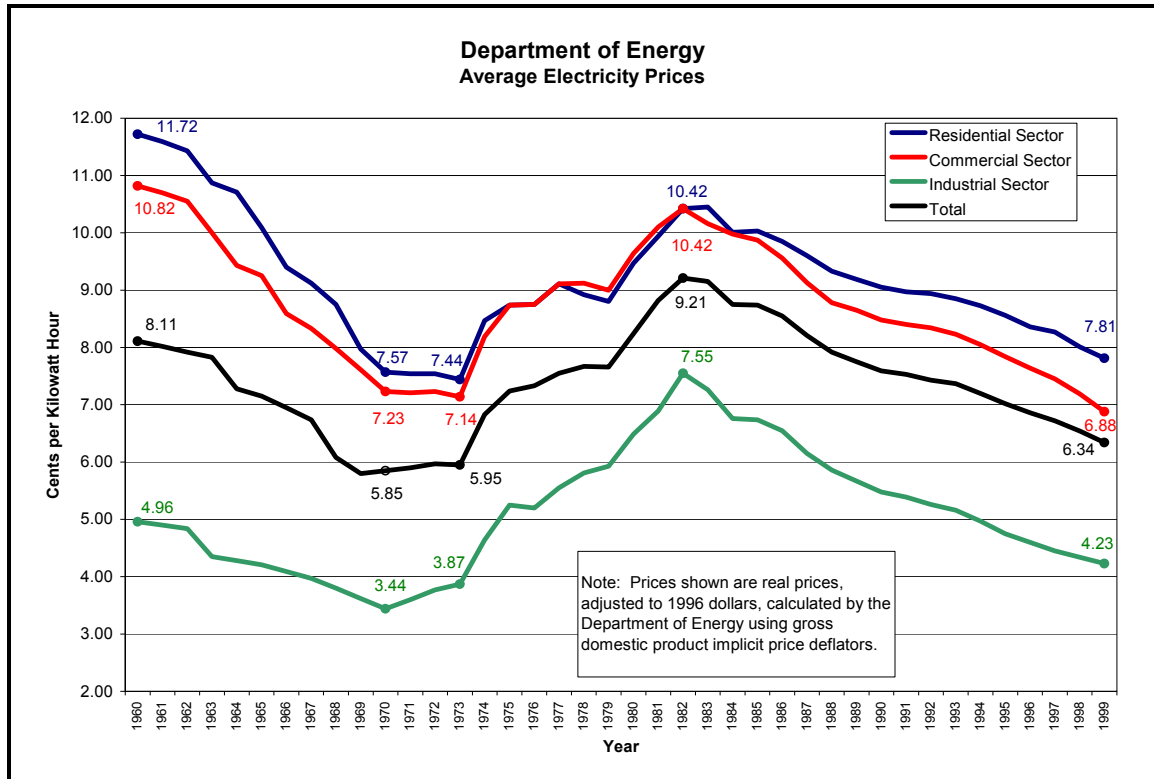
Sincerely,

A handwritten signature in black ink, appearing to read "Mitch McConnell", with a stylized flourish at the end.

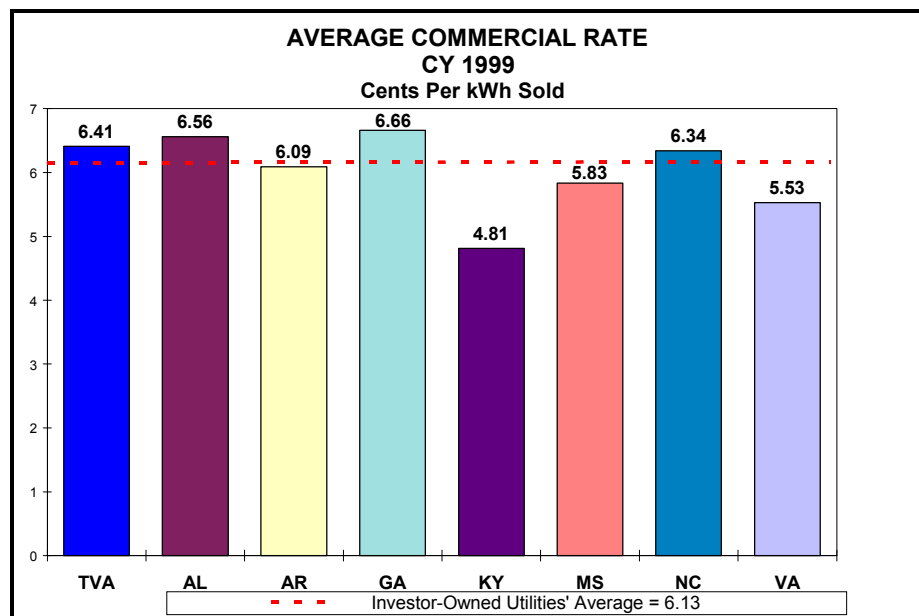
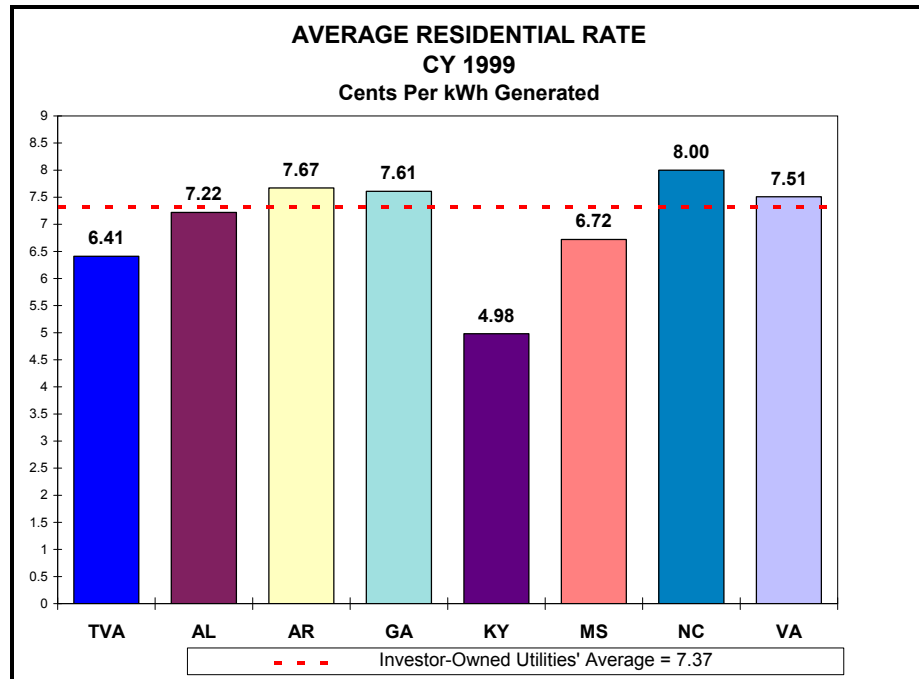
MITCH McCONNELL  
UNITED STATES SENATOR

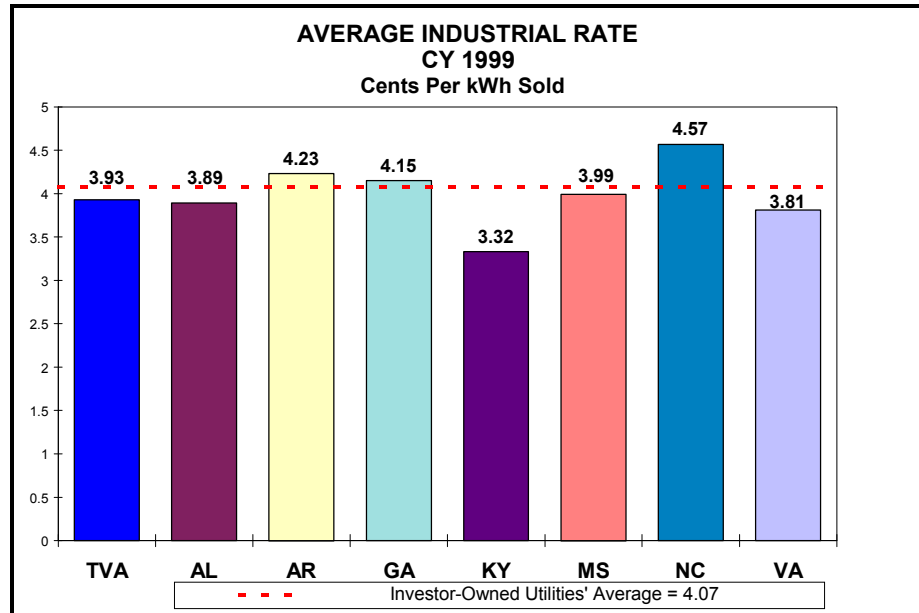
## HISTORICAL TRENDS AND FUTURE UNCERTAINTY IN ELECTRICITY PRICING

As shown below, national electricity rates, on the average, have steadily declined in real dollars since 1982. According to the Department of Energy, residential rates fell an average of 3.5 percent annually from 1960 to 1970, remained relatively stable through 1973, and increased an average of 4.5 percent per year through 1982. From 1982 through 1999, residential rates fell an average of 1.5 percent annually. Commercial rate changes were similar to the residential. However, industrial rate changes have been more dramatic. Industrial rates decreased an average of 3.1 percent annually from 1960 through 1970, increased an average of 4.2 percent annually through 1973, and then increased 10.6 percent annually through 1982. Since then, industrial rates have fallen an average of 2.6 percent annually.



Future market pricing throughout the country is uncertain. According to the Department of Energy's *Annual Energy Outlook 2001*, "Many of the events that shape energy markets are random and cannot be anticipated, including severe weather, political disruptions, strikes, and technological breakthroughs. In addition, future developments in technologies, demographics, and resources cannot be foreseen with any degree of certainty."

**COMPARISON OF AVERAGE RATES  
BY CUSTOMER CLASS  
Calendar Year 1999**

**COMPARISON OF AVERAGE RATES  
BY CUSTOMER CLASS  
Calendar Year 1999**

SIGNIFICANT COST COMPONENTS FOR TVA AND LARGE INVESTOR-OWNED UTILITIES IN SELECTED STATES Cents Per kWh Generated for FY 1999									
Cost Component	TVA	State Average	AL	AR	GA	KY	MS	NC	VA
Fuel <sup>1</sup>	0.97	1.22	1.35	1.17	1.33	1.14	1.83	1.04	1.15
Other Operating & Maintenance	0.61	0.64	0.61	0.87	0.75	0.43	0.46	0.70	0.56
Administrative & General	0.42 <sup>2</sup>	0.43	0.32	0.57	0.40	0.31	0.47	0.52	0.42
Distribution	0.45 <sup>2</sup>	0.39	0.35	0.38	0.52	0.31	0.52	0.31	0.41
Depreciation and Amortization	1.15 <sup>2</sup>	0.71	0.57	0.75	0.70	0.50	0.42	0.86	0.78
Taxes	0.30 <sup>2</sup>	0.76	0.63	0.31	0.85	0.44	0.56	1.03	0.75
Interest	1.27 <sup>2</sup>	0.38	0.43	0.39	0.38	0.26	0.31	0.37	0.45
Net Income	0.27 <sup>2</sup>	0.92	0.66	0.30	0.78	0.59	0.45	1.69	0.69
<sup>1</sup> Fuel cost does not include purchased power. <sup>2</sup> These costs include those that were incurred by both TVA and its distributors.  AL – Alabama AR – Arkansas GA – Georgia KY – Kentucky MS – Mississippi NC – North Carolina VA – Virginia									

TVA Office of the Inspector General Congressional Advisory Report  
2001-081P

TVA's Compliance with the National Energy Conservation Policy Act

24-August-2001

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## **APPENDICES**

- A. LETTER DATED JULY 26, 2001, TO RICHARD CHAMBERS  
FROM SENATOR FRED THOMPSON
- B. TVA INSPECTOR GENERAL OVERSIGHT PERTAINING  
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- C. REPORT DATED MARCH 31, 1993, TO SENATOR JOHN GLENN FROM TVA'S ASSISTANT INSPECTOR GENERAL, AUDIT
- D. MEMORANDUM DATED AUGUST 22, 2001, TO RICHARD CHAMBERS FROM TVA'S EXECUTIVE VICE PRESIDENT, ADMINISTRATION

## **EXECUTIVE SUMMARY**

The National Energy Conservation Policy Act of 1978, as amended (42 USC 8241, et. seq.), and Executive Order 13123, dated June 3, 1999, provided energy consumption reduction goals to be implemented by federal agencies, including the Tennessee Valley Authority (TVA).

On July 26, 2001, the Chairman and the ranking minority member of the U.S. Senate Committee on Governmental Affairs requested our office to assess TVA's progress in meeting federal energy management goals and to identify additional actions or opportunities available to further reduce TVA's energy consumption and costs (see Appendix A).<sup>i</sup> In summary, we determined TVA:

- Was generally ahead of or on schedule for meeting the target goals established by the National Energy Conservation Policy Act, as amended, and Executive Order 13123.
- Has demonstrated leadership in promoting energy management. A recent organizational change and decision to add an additional staff member in support of energy management should enhance TVA's position as a leader. In addition, TVA has undertaken numerous energy conservation initiatives not specifically covered by the legislation or executive order, such as the Green Power Switch Program.<sup>ii</sup>

Although TVA has demonstrated considerable success, we identified opportunities for improvement in the areas of sustainable building design and model lease provisions. Accordingly, we recommend that TVA management continue with its plan for developing a (1) sustainable building design program with specific standards and (2) process to provide guidance on incorporating TVA's model provisions into new and renewed leases and subleases.

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<sup>i</sup> The committee also requested TVA's Inspector General to address three questions pertaining to reviews, audits, and investigations of TVA's energy management activities (see Appendix B).

<sup>ii</sup> TVA and 12 power distributors launched Green Power Switch on April 22, 2000. The program provides consumers the opportunity to purchase power generated from renewable resources.

In responding to a draft of this report, TVA management expressed appreciation for the report recognizing TVA's efforts to promote energy management. TVA management also reaffirmed its intention to develop a (1) sustainable building design program with specific standards and (2) process to provide guidance on incorporating model lease provisions into future leases. (See Appendix D.)

We agree with TVA's comments and planned action.

## **BACKGROUND**

The National Energy Conservation Policy Act of 1978, as amended, (42 USC 8241, et. seq.) and Executive Order 13123, dated June 3, 1999, provided energy consumption reduction goals to be implemented by federal agencies, including the Tennessee Valley Authority (TVA). The executive order emphasized that the federal government, as the nation's largest energy consumer, shall significantly improve energy management and take a lead in energy efficient building design, construction, and operation. The executive order also provided for each agency to:

- Reduce energy consumption at office buildings and related structures per gross square foot by 30 percent by 2005 and 35 percent by 2010 as compared to 1985.
- Reduce energy consumption at industrial and laboratory facilities per gross square foot by 20 percent by 2005 and 25 percent by 2010 as compared to 1990.
- Reduce greenhouse gas emissions attributable to facility energy use by 30 percent by 2010 as compared to 1990 emission levels.
- Strive to expand the use of renewable energy within facilities and in activities by implementing renewable energy projects and purchasing electricity from renewable energy sources.
- Reduce the use of petroleum in facilities.
- Strive to reduce total energy use and associated greenhouse gas "as measured at the source."
- Reduce water consumption and associated energy use to reach goals set by the Secretary of Energy.

Executive Order 13123 also emphasized the importance of federal leadership in energy management by incorporating

life-cycle cost analysis, energy audits, ENERGY STAR®<sup>i</sup> products, sustainable building design, updated leases for greater energy efficiency, industrial facility efficiency improvements, highly efficient systems, off-grid generation, electricity from renewable energy sources, education through training, and the showcasing of exemplary facilities.

The Energy Policy Act of 1992, which amended the National Energy Conservation Policy Act, required agency Inspectors General to (1) identify agency compliance activities to meet federal energy efficiency requirements and (2) determine whether internal accounting mechanisms are sufficient to assess the accuracy and reliability of energy consumption and costs. The amendment<sup>ii</sup> also encouraged each Inspector General to conduct periodic reviews of agency compliance with the National Energy Conservation Policy Act, as amended.

On March 31, 1993, we reported to the U.S. Senate Committees on Governmental Affairs and Energy and Natural Resources on TVA's progress toward establishing institutional mechanisms, personnel, and resources to comply with the energy reduction goals required by the National Energy Conservation Policy Act, as amended. We noted TVA did not have the institutional mechanisms in place but had "initiated a process for TVA to use in establishing the institutional mechanisms and allocating personnel and resources necessary to comply with the energy reduction goals." We also noted that TVA's immediate objective at that time was to develop an energy conservation plan that exceeded the energy reduction goals established by the National Energy Conservation Policy Act, as amended. (See Appendix C.)

On April 19, 1995, TVA's Board of Directors approved a TVA Energy Policy. TVA subsequently established an Agency Energy Management Committee to facilitate compliance with federal regulations and TVA energy and environmental management objectives. This committee meets every other month to address issues relative to TVA's continued progress toward achieving energy consumption reduction goals.

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<sup>i</sup> ENERGY STAR® was introduced by the U.S. Environmental Protection Agency in 1992 as a voluntary labeling program designed to identify and promote energy efficient products to reduce carbon dioxide emissions.

<sup>ii</sup> The amendment was limited to Inspectors General of the establishments listed in Section 11(2) of the Inspector General Act of 1978 and the Chief Postal Inspector. TVA's Office of the Inspector General was included in the group, effective November 1, 2000.

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

On July 26, 2001, the Chairman and the ranking minority member of the U.S. Senate Committee on Governmental Affairs requested TVA's Inspector General to assess TVA's progress in meeting federal energy management goals and identify additional actions or opportunities available to further reduce TVA's energy consumption and costs (see Appendix A).<sup>iii</sup> To respond to the request, we assessed TVA's progress toward achieving federal energy management goals and demonstrating leadership in energy management, including identification of opportunities for fostering further reductions in TVA's energy consumption and costs. To achieve our objectives, we:

- Reviewed the requirements of the National Energy Conservation Policy Act, as amended, and Executive Order 13123.
- Interviewed TVA representatives and obtained documentation to identify (1) ongoing initiatives being taken by TVA to promote energy efficiency, (2) TVA's policies and procedures for complying with the implementation and reporting requirements of the National Energy Conservation Policy Act, as amended, and Executive Order 13123, and (3) potential opportunities for further reductions in energy consumption.
- Reviewed data documenting the status of TVA's efforts toward reducing energy consumption in the key areas identified by the National Energy Conservation Policy Act, as amended, and Executive Order 13123.
- Reviewed information on energy management opportunities from TVA's Public Power Institute<sup>iv</sup> to identify (1) ongoing initiatives being taken to promote energy efficiency throughout the Tennessee Valley area and (2) potential opportunities for further reductions in energy consumption.

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<sup>iii</sup> The committee also requested TVA's Inspector General to address three questions pertaining to audit and investigative activities related to TVA's energy management activities (see Appendix B).

<sup>iv</sup> The Public Power Institute was established by TVA in 1999 to (1) enhance the role of public power; (2) research new energy-related technologies and environmental sustainability; (3) develop and implement strategic partnerships with public and private entities; and (4) examine emerging energy issues and public power policies in view of a deregulated market.

- Reviewed all TVA Energy Management Annual Reports since 1995 to obtain an understanding of TVA's progress toward complying with the National Energy Conservation Policy Act, as amended, and Executive Order 13123.
- Reviewed sample site energy surveys for TVA's Kingston Fossil Plant and the Chickamauga facilities to obtain a perspective of the reasonableness of TVA's efforts toward identifying energy conservation opportunities at these facilities.<sup>v</sup>
- Obtained the sustainable building design criteria from the Whole Building Design Guide managed by the National Institute of Building Sciences.
- Reviewed selected data from TVA's energy management database for the existence of certain types of information on selected facilities.

Our scope did not include tests which might confirm or refute the accuracy of the numeric data provided by TVA management. This review was performed in accordance with generally accepted government auditing standards.

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<sup>v</sup> TVA performs energy surveys at its facilities to uncover potential energy management opportunities and to upgrade buildings when life-cycle cost effective based on a 10-year payback period.

## **FINDINGS**

TVA is generally ahead of or on schedule for meeting target goals established by the National Energy Conservation Policy Act, as amended, and Executive Order 13123. In addition, TVA has historically demonstrated leadership in promoting energy management, including taking numerous energy conservation initiatives not addressed by the legislation or executive order. In our opinion, a recent organizational change and decision to add an additional staff member in support of energy management should enhance TVA's position as a leader in promoting energy management.

Although TVA has demonstrated considerable success, we identified opportunities for improvement in the areas of sustainable building design and model lease provisions.

## **PROGRESS TOWARD MEETING FEDERAL ENERGY MANAGEMENT GOALS**

TVA has made considerable progress toward meeting the goals established by the National Energy Conservation Policy Act, as amended, and Executive Order 13123, especially with regard to meeting the energy reduction goals for office and related buildings and industrial and laboratory facilities. Details of TVA's progress are provided below.

### **Office Buildings and Related Structures**

Annual energy use reduction at TVA's office and related facilities is ahead of the schedule established by Executive Order 13123 on a Btu<sup>vi</sup> per gross square foot basis.

Using 1985 as the baseline for these buildings, the executive order established target reductions in energy consumption of 30 percent by 2005 and 35 percent by 2010. As illustrated in Figure 1, TVA is currently approaching its 2005 goal. TVA's fiscal year (FY) 2000 usage of 60,046 Btu per gross square foot represents a 27 percent reduction from the 1985 baseline use of 82,357 Btu per gross square foot.

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<sup>vi</sup> The term "Btu" refers to British thermal unit. A Btu is the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at a specified temperature.

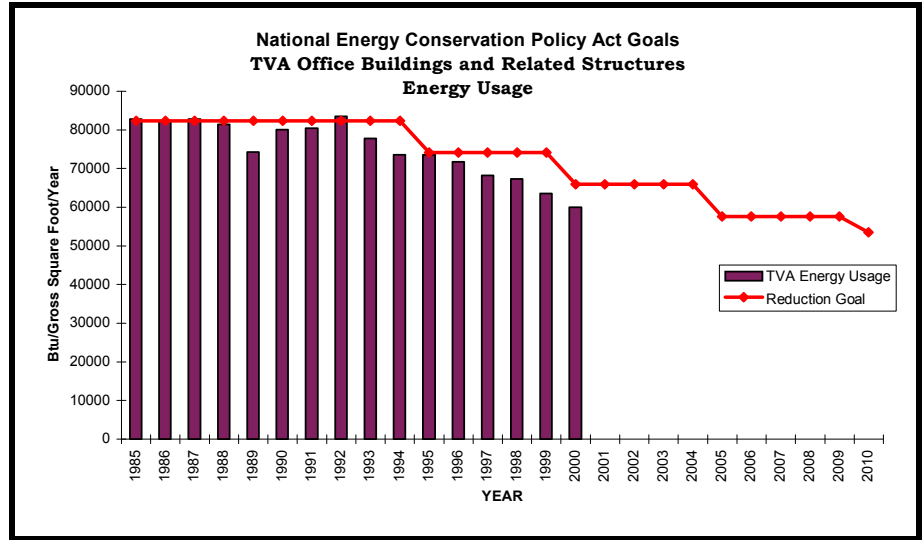


Figure 1

### Industrial and Laboratory Facilities

Annual energy use reduction at TVA's industrial and laboratory facilities has decreased more than the minimum reduction standards established by Executive Order 13123 on a Btu per gross square foot basis.

Using 1990 as the baseline for industrial and laboratory facilities, the executive order established target reductions in energy consumption of 20 percent by 2005 and 25 percent by 2010. As illustrated in Figure 2, TVA has already approached the 2005 goal with FY 2000 usage of 65,960 Btu per gross square foot being 21 percent lower than the 1990 baseline usage of 83,970 Btu per gross square foot.

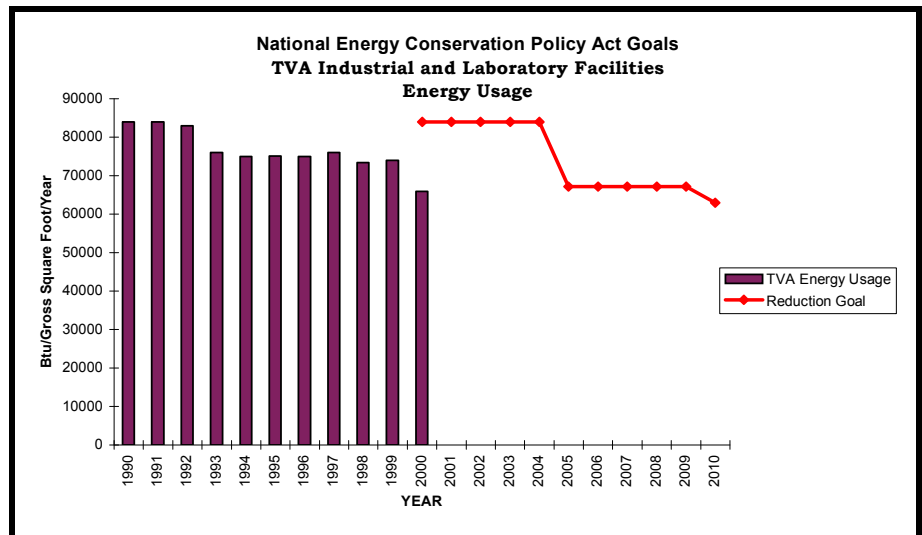


Figure 2

**Greenhouse Gas Emissions**

TVA's percentage reduction in greenhouse gas emissions appears to be lagging considerably behind the stated goal of achieving a 30 percent reduction in greenhouse gas emissions by 2010 as compared to the 1990 level. However, as discussed below, we do not believe the evaluation criteria established by the executive order appropriately measures TVA's progress toward reducing greenhouse gas emissions.

The Department of Energy calculated TVA's greenhouse gas emissions to be 99,600 metric tons of carbon equivalent for the year 2000, as compared to 102,078 metric tons of carbon equivalent in 1990. However, these calculations did not reflect a significant increase since 1990 in TVA's gross square footage for (1) office and related buildings and (2) industrial and laboratory facilities. We believe a more appropriate measurement criteria would be to calculate changes in Btu per square foot because this type of calculation would recognize changes in space requirements.

According to TVA management, TVA will receive greenhouse gas emission credits for purchases of renewable energy for facility use. These credits can then be applied against the greenhouse gas emission reduction requirement.

**Renewable Energy**

The executive order states that each federal agency should strive to expand the use of renewable energy within its facilities and in its activities by (1) implementing renewable energy projects and (2) purchasing electricity from renewable energy sources.

TVA did not implement renewable energy projects in its facilities during FY 2000. According to TVA management, significant renewable energy projects, such as solar panels and wind power, historically have not been cost effective to install on individual buildings based on life-cycle cost and a 10-year payback period. However, TVA has had success in purchasing electricity from renewable energy sources. In FY 2000, TVA purchased 157.5 megawatt hours of energy derived from renewable sources and is on target to purchase at least 450 megawatt hours of energy derived from renewable sources in FY 2001. By the year 2010, TVA plans to be purchasing 37,000 megawatt hours of renewable energy annually. Also, a number of TVA facilities incorporate renewable energy

strategies including daylighting and passive solar heating into their design and operations.

### **Use of Petroleum**

TVA has had success in reducing the use of petroleum within its facilities as called for by the executive order. TVA consumed 13,650 gallons of petroleum in building operations in FY 2000 as compared to 21,920 gallons in FY 1985, representing a reduction of 38 percent.

### **Greenhouse Gas as Measured at the Source**

The executive order states that federal agencies should strive to reduce total energy use and associated greenhouse gas “as measured at the source.” However, as a utility, site energy generation has a different meaning for TVA than it does for the non-utility federal agencies. Nonetheless, there have been some instances where TVA has reduced its reliance on source energy at various TVA buildings through better utilization of and reductions in site energy. For example, TVA piped waste heat from computers in a data center to an adjacent office building, thereby reducing reliance on source generation. Also, as previously noted, TVA has incorporated daylighting and other renewable options into facilities, thereby reducing site energy use and, ultimately, source energy needs.

### **Water Consumption**

The executive order states that federal agencies should reduce water consumption and associated energy use to levels established by the Secretary of Energy. The Department of Energy established goals for potable water usage at facilities owned by the United States Government using FY 2000 as the baseline. In compliance with this provision, TVA reported its facilities potable water use as 377.7 million gallons for FY 2000. Currently, TVA is developing a process to evaluate its facilities in accordance with recently issued best management practices established by the Department of Energy.

## PROMOTING LEADERSHIP IN ENERGY MANAGEMENT

Executive Order 13123 addresses promoting leadership in energy management through utilization of life-cycle cost analysis, energy audits, ENERGY STAR® products, sustainable building design, updated leases for greater energy efficiency, industrial facility efficiency improvements, highly efficient systems, off-grid generation,<sup>vii</sup> electricity from renewable energy sources,<sup>viii</sup> education through training, and showcasing of exemplary facilities.

While TVA has demonstrated success, opportunities for improvement still exist, especially in the areas of sustainable building design and model lease provisions. A recent organizational change and a decision to hire additional staff in support of energy management should significantly heighten TVA's position as a leader in promoting energy management.

TVA has also demonstrated energy conservation leadership through initiatives and programs not specifically covered by the National Energy Conservation Policy Act, as amended, or Executive Order 13123. TVA has been proactive in (1) working with its industrial, commercial, and residential customers; (2) creating the Public Power Institute to research and develop emerging technologies; and (3) creating a Green Power Switch Program.

### Life-Cycle Cost Analysis

The executive order states that life-cycle cost<sup>ix</sup> analysis shall be used in making decisions about investments in products, services, construction, and other projects. TVA evaluates energy efficiency in its facilities through assessments and energy surveys and makes decisions on implementing energy conservation measures based on life-cycle costs calculated over the life of the system and using a 10-year pay-back period along with other economic indicators. TVA uses a 15 percent hurdle rate and other economic indicators for evaluating both capital projects and operation and maintenance activities.

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<sup>vii</sup> As a utility, TVA generally does not engage in off-grid generation.

<sup>viii</sup> Electricity from renewable energy sources is discussed on page 7 of this report.

<sup>ix</sup> The Act states that life cycle cost "means the total costs of owning, operating, and maintaining a building over its useful life (including such costs as fuel, energy, labor, and replacement components) determined on the basis of a systematic evaluation and comparison of alternative building systems, except that in the case of leased buildings, the life cycle costs shall be calculated over the effective remaining term of the lease."

According to TVA management, about 95 percent of the proposed energy conservation measures in recent years have been implemented as operation and maintenance activities.

### **Facility Energy Audits**

The executive order states that agencies “shall continue to conduct energy and water audits for approximately 10 percent of their facilities each year . . . .” As discussed below, TVA has complied with this aspect of the executive order.

By the end of summer of 2000, TVA had completed energy audits of its facilities by (1) cataloging each facility with an energy connection, (2) using a standardized process and evaluation sheet to record and analyze each facility’s existing energy conservation measures, and (3) identifying additional conservation measures that could be implemented. As of September 29, 2000, TVA had identified 648 industrial facilities and 913 non-industrial facilities that met the reporting criteria.

Currently, TVA’s review process provides for revisiting all TVA facility sites within 3 to 5 years to identify existing structures and opportunities for implementing additional energy conservation measures.

### **ENERGY STAR® Products**

Agencies are required, where life-cycle cost effective, to select ENERGY STAR® and/or other energy products that are in the upper 25 percent of energy efficiency.

TVA has supported the ENERGY STAR® program by requiring personal computer equipment purchases be ENERGY STAR® compliant. TVA estimates that over the past two years more than 95 percent of the personal computer equipment purchases have been ENERGY STAR® compliant.

Another area where TVA will be supporting the ENERGY STAR® program involves occupancy sensors for offices. TVA is evaluating a process for incorporating occupancy sensors that will turn off power to select office equipment that is not in use.

**ENERGY STAR® Buildings**

The executive order states that agencies shall strive to meet the ENERGY STAR® building criteria for energy performance and indoor environment quality in eligible facilities to the maximum extent practical by the year 2002.

TVA's energy plan states that TVA will comply with this provision in those instances where it would be cost effective. TVA's Chattanooga Office Complex and its Edney building received an ENERGY STAR® label in FY 2000 and FY 2001, respectively. TVA is currently in the process of evaluating other facilities for energy efficiency and, if applicable, compliance with the ENERGY STAR® building criteria.

**Sustainable Building Design**

The executive order states that agencies shall apply sustainable design principles "to the siting, design, and construction of new facilities." The purpose of sustainable design is to "avoid resource depletion of energy, water, and raw materials; prevent environmental degradation caused by facilities and infrastructure throughout their life cycle; and create built environments that are livable, healthy, and productive."<sup>x</sup>

TVA is currently developing a sustainable building design program and plans to have standards developed in FY 2001. Although progress in this area has been slow due to staff reductions that occurred in 1997, a recent organizational change and a decision to add an additional experienced energy management specialist should enable TVA to be more responsive in this and other areas.

**Updated Leases for Greater Energy Efficiency**

Agencies entering into leases are required to incorporate lease provisions that encourage energy and water efficiency wherever life-cycle cost effective. The executive order also requires build-to-suit lease solicitations contain criteria encouraging sustainable design and development, energy efficiency, and verification of building performance.

TVA has developed model lease provisions which, when implemented, will require energy and water efficiency. Although the model lease provisions have yet to be

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<sup>x</sup> The six fundamental principles of sustainable design include optimizing site potential, minimizing energy consumption, protecting and conserving water, using environmentally preferable products, enhancing indoor environmental quality, and optimizing operational and maintenance practices.

incorporated into any leases or subleases, TVA is developing a process to provide guidance on incorporating the model provisions into new and renewed leases and subleases. In addition, according to TVA management, the current leases and subleases sometimes include a provision requiring the lessor/lessee to abide by the same laws and regulations that are applicable to TVA.

### **Industrial Facility Efficiency Improvements**

Agencies are required to explore efficiency opportunities in industrial facilities for steam systems, boiler operation, air compressor systems, industrial processes, and fuel switching.

During FY 2000, TVA completed 51 fossil energy projects at a cost of over \$149 million and 51 hydro electric projects at a cost of over \$65 million. According to TVA management, benefits being derived from the fossil projects include heat rate improvements, maintaining plant availability, reducing energy consumption, lowering maintenance costs, environmental stewardship, and increasing overall efficiency. With regard to the hydro projects, TVA management stated that energy efficiency and environmental impacts were considered for each project.

### **Highly Efficient Systems**

The executive order requires agencies to implement highly efficient systems "in new construction or retrofit projects when life-cycle cost-effective."

Currently, TVA is evaluating the cost effectiveness of several highly efficient systems for inclusion in a proposed Customer Service Center for Johnson City, Tennessee. TVA's projects for retrofitting existing facilities include upgrading lighting systems; upgrading motors; installing energy management systems; increasing boiler efficiency; and upgrading heating, ventilation, and air conditioning systems.

### **Education Through Training**

Agencies are (1) required to ensure that all appropriate personnel receive training for implementing Executive Order 13123 and (2) encouraged to develop outreach programs that include education, training, and promotion of ENERGY STAR®.

TVA's Agency Energy Management Committee, which meets every other month, is responsible for ensuring that energy

management data is properly disseminated throughout TVA. In addition, TVA:

- Promotes energy awareness by participating in the “Energy Awareness Month” sponsored annually by the Department of Energy.
- Promotes energy management through articles in an internal publication that is disseminated throughout TVA.
- Makes presentations to TVA’s Environmental Integration Team and other teams by addressing existing and potential regulations.
- Provides technical training for the installation of new, energy efficient technologies.

### **Showcasing of Exemplary Facilities**

The executive order states that agencies “shall designate exemplary new and existing facilities with significant public access and exposure as showcase facilities to highlight energy or water efficiency and renewable energy improvements.”

TVA’s Chattanooga Office Complex, which was completed and occupied in 1986, is a designated showcase facility. The facility integrates the use of renewable energy strategies, energy management practices, and environmental programs and activities. The facility has been showcased on numerous occasions through media articles, presentations and studies to a multitude of organizations, and the Environmental Protection Agency’s website as an ENERGY STAR® building.

### **Other Energy Conservation Activities**

As a utility, TVA participates in many conservation initiatives not specifically covered by the National Energy Conservation Policy Act, as amended, or Executive Order 13123. In addition to the previously discussed industrial facility efficiency improvements, TVA promotes energy conservation through:

- Initiatives with industrial, commercial, and residential customers;
- Public Power Institute initiatives; and
- The Green Power Switch Program.

Initiatives With TVA Customers

TVA promotes conservation initiatives through industrial customer collaboration, commercial customer consulting, and residential incentives. Specifically, TVA helps its:

- Direct-served and distributor-served industrial customers identify and resolve problems related to their energy use, manufacturing processes, environmental issues, and plant operations.
- Commercial customers resolve energy-related problems, including the selection of energy efficient equipment. For example, TVA has helped customers design ground heat exchangers in closed loop geothermal heat pumps.
- Power distributors through an *energy right*® program provide incentives for energy management in new construction homes, new manufactured homes, water heaters, and heat pumps.

Initiatives With the Public Power Institute

TVA established the Public Power Institute in the spring of 1999 to (1) enhance the role of public power; (2) research new energy-related technologies and environmental sustainability; (3) develop and implement strategic partnerships with public and private entities; and (4) examine emerging energy issues and public power policies in view of an increasingly deregulated market. In coordination with the Public Power Institute, the following initiatives are being pursued.

- TVA plans to install a 12 megawatt power plant to begin operation in 2003 utilizing Regenesys technology. The plant will work as a battery to store excess energy during low demand times and provide stored energy when demand is high.
- The Public Power Institute partnered with the Oak Ridge National Laboratory and various other companies and universities to develop hybrid lighting and full-spectrum solar energy systems. These systems simultaneously separate and use different portions of the solar energy spectrum for lighting and generation of electricity.

- The Public Power Institute partnered with the Oak Ridge National Laboratory to develop a frostless heat pump. If successful, the heat pump will reduce outdoor coil frosting and lower winter electric power peak loads.
- The Public Power Institute is continuing TVA's prior research and development efforts related to using biomass with coal at TVA fossil plants to reduce coal consumption and emissions.<sup>xi</sup>

#### Green Power Switch Program

TVA and 12 of its power distributors launched Green Power Switch on April 22, 2000. The program provides consumers the opportunity to purchase power generated from renewable resources at an increased price. Currently, the program includes renewable generation from:

- Wind powered turbines at the Buffalo Mountain Wind Park that have a 2 megawatt capacity and generate 6 million kilowatt hours of electricity per year.
- Ten solar power sites that collectively have a capacity of 259 kilowatts.

In addition, TVA is currently purchasing some landfill gas generation.

## **RECOMMENDATIONS**

We recommend that TVA's Executive Vice President, Administration, continue with its plan for developing a:

- Sustainable building design program with specific standards.
- Process to provide guidance on incorporating the model lease provisions into new and renewed leases and subleases.

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<sup>xi</sup> Over the last 10 years, TVA tested cofiring a variety of biomass residues at three fossil-fueled plants. These cofiring tests helped to verify the emissions reductions that can be expected and have been referenced in numerous national publications. Based on these tests, TVA has been cofiring wood residues at the Colbert Fossil Plant for the last 4 years and tire-derived fuel at the Allen Fossil Plant for 6 years. In addition, cofiring of digester gas is under design and advanced cofiring with energy crops is being investigated.

## **MANAGEMENT'S COMMENTS AND OUR EVALUATION**

TVA management expressed appreciation for this report recognizing TVA's efforts to promote energy management. Also, TVA management reaffirmed its intention to develop a (1) sustainable building design program with specific standards and (2) process to provide guidance on incorporating model lease provisions into future leases. (See Appendix D.)

We agree with TVA's comments and planned action.

TVA Office of the Inspector General Congressional Advisory Report  
2001-914C

Update on Selected Management Practices

02-April-2001

Part One

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GENERAL DATED MARCH 30, 2001

## **EXECUTIVE SUMMARY**

At the request of Congressman Zach Wamp, we issued a series of reports in December 1997 addressing management practices in seven areas. On November 3, 2000, Congressman Wamp requested an update on these issues (see Appendix A). This report provides an update on five of these areas—consulting contracts, advertising, special events (including barge events), executive air transportation, and the relocation of personnel and programs to Nashville, Tennessee. Our updates on the other two areas—compensation for TVA’s higher paid employees and property leases and purchases—are addressed in separate reports (Congressional Advisory Reports 2001-011P and 2000-917P, respectively).

### **Consulting Contracts**

Since our last review TVA has (1) competed or eliminated several long-term consulting contracts, (2) implemented enhanced contracting procedures, and (3) developed and implemented a training program to improve contractor oversight. Annual expenditures for active consulting and training contracts of \$100,000 or more have decreased by 45 percent. In addition, we estimated TVA has reduced the percentage of these contracts awarded without competition from about 80 percent as noted in our 1997 review to about 45 percent during fiscal year (FY) 2000. We issued a draft audit report regarding our review of consulting contracts to TVA management on February 23, 2001 (Audit 2001-014C). (See page 2.)

### **TVA Advertising**

Since our last report, TVA (1) increased its advertising expenditures every year through FY 2000 but decided to reduce advertising expenditures for FY 2001 by about 70 percent, (2) put its public awareness campaign on hold, (3) continued to promote its *energy right*® program, and (4) began a new advertising campaign entitled “Green Power Switch” wherein TVA promotes the use of electricity produced from wind, solar power, and landfill gas. (See page 5.)

### **Special Events (Including the TVA Barges)**

TVA continues to sponsor special events intended to enhance communications with customers, stakeholders, economic

development partners, and other groups. (See page 7.) Since our last report, TVA has:

- Increased the number of special events, excluding barge events, from 18 in 1995 to 33 events in 2000 and increased total special event expenditures from \$848,077 in 1995 to about \$2.0 million in 1999 and \$1.8 million in 2000.<sup>1</sup>
- Reduced the number of barge events from a high of 19 in 1996 to only one event in 2000 and reduced annual barge event expenditures from a high of \$178,868 in 1997 to just \$28,036 in 2000.

### **Executive Air Transportation**

TVA continues to provide executive fixed-wing air travel by three options: (1) TVA's leased 1992 Beech King Air 350, (2) chartered aircraft from various charter companies, and (3) commercial air transportation. While usage has not increased significantly, total annual costs for charter and King Air flights have risen. TVA continues to consider options for providing air transportation. (See page 11.)

### **Relocation of Personnel and Programs to Nashville**

Since our last report, TVA transferred 28 employees to Nashville, Tennessee, and filled 119 vacant Nashville positions via internal employee selections and new hires from outside TVA. TVA incurred about \$3.4 million in transfer benefit costs and about \$258,000 in relocation incentive bonuses related to the Nashville selections. Our separate report on property leases and purchases included information on the Nashville lease costs for office space. In addition, we are conducting a review of the justification for the costs associated with Highland Ridge Tower in Nashville (Audit 2001-037P). (See page 15.)

TVA management provided comments on a draft of this report to clarify and enhance the report (see Appendices G, H, and I). We revised the draft report, where appropriate, to reflect management's comments.

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<sup>1</sup> According to TVA management, TVA discontinued one of the most costly events, the annual ® Awards Celebration, after calendar year 2000.

## **BACKGROUND**

On August 12, 1997, Congressman Zach Wamp requested TVA's Inspector General to perform "a top-to-bottom review of the agency's management practices." On December 31, 1997, the Inspector General issued a series of reports to the Congressman addressing:

- Compensation and other benefits paid to TVA's higher paid employees;
- Consulting contracts;
- TVA advertising;
- Special events, including entertainment on TVA's barges;
- Air transportation, including a proposed lease of a corporate jet;
- Property leases and purchases; and
- Relocation of personnel and programs to Nashville, Tennessee.

On November 3, 2000, Congressman Wamp requested an update on these issues (see Appendix A). Congressman Wamp originally requested a report on these areas be provided to him prior to disclosing the report to anyone outside the Office of the Inspector General. During subsequent discussions, the Congressman agreed that TVA management comments would be solicited on a draft of the report. This report provides an update on consulting contracts, advertising, special events (including barge events), executive air transportation, and the relocation of personnel and programs to Nashville, Tennessee.

## **OBJECTIVE, SCOPE, AND METHODOLOGY**

Our objective was to provide an update on the selected business practices that were previously reported to Congressman Wamp. We conducted the following work in response to Congressman Wamp's request:

- Requested representatives from each major TVA organization to provide updated information related to each of the selected TVA business practices;
- Conducted interviews and reviewed documentation as appropriate to validate the information provided by TVA representatives to the extent possible; and,
- Relied on previous audit work conducted in the areas of consulting and training contracts and reviews of TVA office space.

We did not attempt to assess the value provided by any of these activities to TVA or its customers.

## **FINDINGS**

Our findings on consulting contracts; TVA advertising; spending on special events, including barge events; executive air transportation; and relocation of personnel and programs to Nashville, Tennessee, are discussed below.

### **CONSULTING CONTRACTS**

We previously reviewed TVA's consulting and training contract usage during the period October 1, 1992, through September 30, 1997, and identified about 631 active consulting and training contracts of \$100,000 or more. Average annual total payments for these contracts during that period was about \$29 million with about 80 percent having been awarded without competition.

Since our previous report, TVA has (1) competed or eliminated several long-term consulting contracts, (2) implemented enhanced contracting procedures, and (3) developed and implemented a training program for Procurement officials as

discussed below. We believe the steps TVA has taken in this area are significant improvements.

### Competition or Elimination of Consulting Contracts

TVA has competed or eliminated several long-term consulting contracts resulting in a reduction in the number and amount of payments for these contracts. During FY 2000, TVA had about 120 active consulting and training contracts of \$100,000 or more. TVA paid a total of \$16.1 million on these consulting and training contracts during FY 2000, a decrease of 45 percent from the \$29 million annual average we reported previously. In addition, we estimate TVA awarded about 45 percent of these contracts without competition in comparison to about 80 percent that TVA awarded without competition as noted in our 1997 report.

Figure 1 below summarizes the number of contracts and expenditures by type for consulting contracts of \$100,000 or more during FY 2000.

<b>ACTIVE CONSULTING AND TRAINING CONTRACTS OF \$100,000 OR MORE—FY 2000</b>		
<b>Type of Consulting Contract</b>	<b>Number of Contracts</b>	<b>Expenditures</b>
Corporate	24	\$ 5,007,104
Technical	36	3,710,247
Employee-Related	18	2,637,448
Legal	11	1,902,955
Financial	6	1,169,431
Communications/Public Relations	7	725,289
Customer Service and Marketing	12	408,837
Information Technology	6	530,304
<b>Totals</b>	<b>120</b>	<b>\$16,091,615</b>

**Figure 1**

### Enhanced Contracting Procedures

TVA has implemented enhanced contracting procedures. Among other things, these procedures restate TVA's policy to obtain competition. The procedures also require noncompetitive contracts of \$25,000 or more to meet certain justification criteria and receive required approvals, both of which must be documented. These procedures further require TVA management to provide the Board five days advance notice before awarding consulting contracts of \$25,000 or more.

We judgmentally selected and reviewed 86 of 167 consulting contracts of \$25,000 or more that were active during FY 2000. While 48 of the 86 sampled contracts were not competed, the majority (about two-thirds) of the contract dollars were competed. Thirteen of the 48 sole-sourced contracts did not comply with the specific requirements outlined in TVA's Procurement policies. We issued a draft audit report regarding our review of consulting contracts to TVA management on February 23, 2001 (Audit 2001-014C).

We have included as Appendix B a complete listing of consulting and training contracts active during FY 2000 of \$25,000 or more.

### **Procurement Training Program**

TVA has developed and implemented a training program for Procurement officials to achieve consistent control and oversight of TVA contracts through better contract management. The training curriculum was specifically designed for Contract Managers/Contract Agents and included topics such as sourcing decisions, proposal evaluation, contract planning and development, and contract administration.

### **Management's Comments**

Management requested the first paragraph on page four be modified to read as follows: "We judgmentally selected and reviewed 86 of 167 consulting contracts of \$25,000 or more that were active during FY 2000. The majority of these contracts were competed. Our review identified only 14 contracts that did not comply with the specific documentation requirements outlined in TVA's Procurement policies. Although competition was addressed and documented by TVA management on most of these contracts, the specific procedures and approvals were not accurately documented in each case."

### **Our Evaluation of Management's Comments**

Our review determined that about two-thirds of the contract dollars were competed. However, we found 48 of the 86 individual contract awards were not competed. Additionally, our review identified 13 contracts that did not comply with the specific requirements outlined in TVA's Procurement policies. We changed the wording in the report to address this issue more specifically.

## TVA ADVERTISING

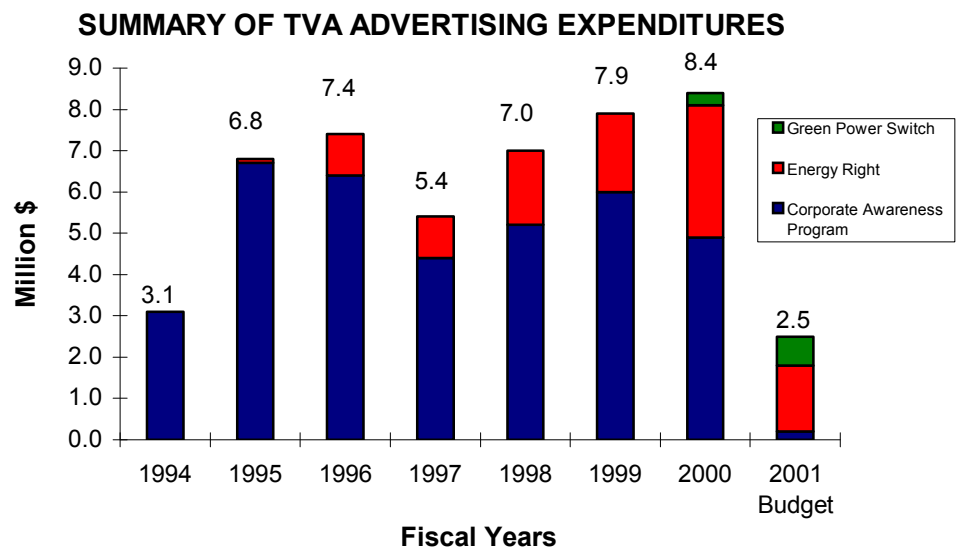
We previously reported TVA used advertising primarily to increase public awareness of and preference for TVA in preparation for competition which is expected under electric utility deregulation. TVA also used advertising to provide information on specific issues affecting TVA and to promote its *energy right*® program.

Since our last report, TVA:

- Increased its advertising expenditures each year through FY 2000. However, TVA has reduced its advertising budget for FY 2001 to \$2.5 million compared to actual expenditures of almost \$8.4 million in FY 2000.
- Put its public awareness campaign on hold while it reevaluated its strategy for positioning itself in a restructured marketplace. TVA management indicated they currently have no plans to resume the public awareness campaign.
- Has not used advertising to provide information to the public on specific issues and no longer has a specific budget for this type of advertising.
- Continued to promote its *energy right*® program wherein TVA and its distributors work together in a cooperative effort to provide incentives to build homes with energy saving features.
- Began a new advertising campaign entitled “Green Power Switch” wherein TVA promotes the use of electricity produced from wind, solar power, and landfill gas. An illustration of one advertisement is shown below.



TVA's advertising expenditures from FY 1994 through FY 2000 and budgeted expenditures for FY 2001 are illustrated in Figure 2 below.



**Figure 2**

As noted in our 1997 report, TVA contracted with the advertising agency Fitzgerald & Company (Fitzgerald) of Atlanta, Georgia, in March 1994 as the sole company charged with the preparation and placement of advertising on projects assigned by TVA. In 1999, TVA recompeted the advertising contract, inviting 22 advertising agencies to submit a summary of their capabilities and qualifications. TVA subsequently selected five companies for further consideration and ultimately chose and awarded Fitzgerald a new contract effective October 1, 1999. This

contract will expire on October 31, 2001, and has the option to further extend until September 30, 2003.

### **Management's Comments**

Management requested the last sentence of this section be changed to read: "TVA subsequently selected five companies for further consideration and ultimately chose and awarded Fitzgerald a new contract effective October 1, 1999. This contract will expire on October 31, 2001, and has the option to further extend until September 30, 2003."

Management also recommended a clarification regarding the *energy right*® program.

### **Our Evaluation of Management's Comments**

We concurred with management's comments and have incorporated the requested information in this report.

## **SPENDING ON SPECIAL EVENTS (INCLUDING THE TVA BARGES)**

TVA uses special events intended to enhance communications with customers, stakeholders, economic development partners, and other special interest groups. We obtained information from TVA on special events including (1) all events that cost TVA at least \$10,000 per event and included non-TVA attendees, and (2) all barge events. We relied on the information TVA management provided and have not independently verified the costs associated with each event.

### **Special events**

TVA classified special events in seven categories: (1) customer appreciation, (2) conferences and workshops, (3) employee recognition, (4) community events, (5) receptions, (6) special groups, and (7) facility dedications. Since our last report, TVA has held 97 special events costing \$10,000 or more. As shown in Figures 3 and 4, the number of special events has increased from 18 in 1995 to 33 events in 2000 and total special event expenditures have increased from \$848,077 in 1995 to a high of \$2,029,466 in 1999 and slightly less than \$2 million in 2000. We

have included a detailed listing of special events and costs as Appendix C.

NUMBER OF SPECIAL EVENTS—BY FISCAL YEAR							
Category	1995	1996	1997	1998	1999	2000	FY 2001 (as of 12/31/00)
Conferences and Workshops	4	11	7	11	12	11	2
Customer Appreciation	4	5	10	6	5	9	3
Receptions		2	4	9	10	6	
Special Groups				1	2	4	
Community Support	3	3	3	1	1	1	
Facility Dedication	5	3				2	1
Employee Recognition	2	2	2				
<b>Total</b>	<b>18</b>	<b>26</b>	<b>26</b>	<b>28</b>	<b>30</b>	<b>33</b>	<b>6</b>

Figure 3

SPECIAL EVENT EXPENDITURES (in thousands) BY FISCAL YEAR							
Category	1995	1996	1997	1998	1999	2000	FY 2001 (as of 12/31/00)
Conferences and Workshops	\$82.5	\$443.6	\$411.4	\$474.8	\$908.0	\$875.5	\$265.8
Customer Appreciation	359.9	170.0	859.1 <sup>2</sup>	271.0	476.0	621.5	473.0
Receptions	0.0	41.4	59.8	124.0	326.3	114.9	0.0
Special Groups	0.0	0.0	0.0	17.5	294.1	128.1	0.0
Community Support	53.4	114.6	45.3	38.0	25.0	36.0	0.0
Facility Dedication	134.4	35.8	0.0	0.0	0.0	31.1	10.0
Employee Recognition	217.8	237.8	217.5	0.0	0.0	0.0	0.0
<b>Total</b>	<b>\$848.0</b>	<b>\$1,043.2</b>	<b>\$1,593.1</b>	<b>\$925.3</b>	<b>\$2,029.4</b>	<b>\$1,807.1</b>	<b>\$748.8</b>

Figure 4

The 18 events during 1998 through 2000 that cost \$100,000 or more are listed in Figure 5 below. These 18 events make up \$3.65 million (66 percent) of the \$5.51 million spent on special events since our last report.

<sup>2</sup> Includes three events that occurred during October 1997 (fiscal year 1998 cost \$337,037).

SPECIAL EVENTS WHICH COST OVER \$100,000 FY 1998 THROUGH DECEMBER 31, 2000			
Event Date	Event Name	Event Location	TVA Cost
June 1998	APPA Conference - TVA Reception	San Antonio, TX	\$135,000
June 1999	APPA Conference - TVA Reception	Salt Lake City, UT	106,000
July 1999	Canadian Trade Mission Reception and 4 <sup>th</sup> of July Celebration	Ottawa, Canada	170,000
April 1999	Diversity Conference	Nashville, TN	166,969
Oct/Nov 1998	<i>energy right</i> ® Awards Celebration	Nashville, TN	196,000
Oct/Nov 1999	<i>energy right</i> ® Awards Celebration	Nashville, TN	346,000
Oct/Nov 2000	<i>energy right</i> ® Awards Celebration <sup>3</sup>	Nashville, TN	452,000
October 1999	Fall Industrial Conference	Nashville, TN	108,300
March 1998	Financial Analyst Conference	New York, NY	225,000
March 1999	Financial Analyst Conference	New York, NY	225,000
March 2000	Financial Analyst Conference	New York, NY	255,000
April 1999	Investment Challenge - Conference and Awards Ceremony	Nashville, TN	126,924
April 2000	Investment Challenge - Conference and Awards Ceremony	Nashville, TN	161,413
October 1998	Investment Challenge - Conference and Job Fair	Nashville, TN	168,728
November 1999	Investment Challenge - Conference and Job Fair	Nashville, TN	190,385
November 2000	Investment Challenge - Conference and Job Fair	Nashville, TN	207,590
March 1999	NRECA Conference - TVA Reception	Anaheim, CA	141,000
June 1999	US Women's Open - Reception and Event Sponsorship	West Point, MS	276,600
<b>Total</b>			<b>\$3,657,909</b>

Figure 5

TVA management believes special events are an effective means for enhancing communications with customers and economic development partners.

### Barge events

Since our previous report, TVA has essentially eliminated barge events except for the annual Riverbend event held in Chattanooga. As shown in Figures 6 and 7 below, TVA has reduced the number of barge events from a high of 19 in 1996 to only one event in 2000 and reduced barge event expenditures from a high of \$178,868 in 1997 to just \$28,036 in 2000.

<sup>3</sup> According to TVA management, TVA discontinued the *energy right*® Awards Celebration after calendar year 2000.

NUMBER OF BARGE EVENTS—BY FISCAL YEAR							
Category	1995	1996	1997	1998	1999	2000	FY 2001 (as of 12/31/00)
Customer Appreciation	13	12	14	10	2		
Community Support	1	1	1	1	1	1	
Employee Recognition	2	2					
Special Groups	1	4	3				
<b>Total</b>	<b>17</b>	<b>19</b>	<b>18</b>	<b>11</b>	<b>3</b>	<b>1</b>	<b>0</b>

Figure 6

BARGE EVENT EXPENDITURES (in thousands) BY FISCAL YEAR							
Category	1995	1996	1997	1998	1999	2000	FY 2001 (as of 12/31/00)
Customer Appreciation	\$119.9	\$121.0	\$153.0	\$115.1	\$29.1	\$0.0	\$0.0
Community Support	23.7	23.6	23.6	21.0	22.7	28.0	0.0
Employee Recognition	9.4	6.7	0.0	0.0	0.0	0.0	0.0
Special Groups	0.4	7.4	2.3	0.0	0.0	0.0	0.0
<b>Total</b>	<b>\$153.5</b>	<b>\$158.7</b>	<b>\$178.9</b>	<b>\$136.1</b>	<b>\$51.7</b>	<b>\$28.0</b>	<b>\$0.0</b>

Figure 7

We have included a detailed listing of barge events and costs as Appendix D.

### Management's Comments

TVA management did not believe the two major finance functions, the Financial Analysts Conference and the Investment Challenge Program should be classified as special events as defined by the report. Management suggested we delete the events from the report or revise the report language to reflect the true nature of these programs.

Management also suggested we (1) add a footnote to Figure 5 indicating TVA has discontinued the *energy right*® Awards Celebration, and (2) revise the "Riverfest" event to "Riverbend."

### Our Evaluation of Management's Comments

The two finance events mentioned by management were included in our 1997 report and we believe these events are adequately classified as "conference and workshops." We did

revise the first sentence in this section to include a broader description of special event usage. We concurred with management's other suggestions and incorporated them as appropriate.

## EXECUTIVE AIR TRANSPORTATION

TVA continues to provide executive fixed-wing air travel by three options: (1) TVA's leased 1992 Beech King Air 350, (2) chartered aircraft from various charter companies, and (3) commercial air transportation. TVA also owns several helicopters, but they are used predominantly for transmission system support.

According to TVA management, executive travel volume increased in FY 2000. TVA attributed the increased volume to deregulation activities, dispersed TVA Board members and Board meetings, increased interaction with customers, Environmental Protection Agency negotiations, and activities related to power transmission system regulation. Due to the increased travel volume and the developing need for an engine overhaul for the King Air 350, management is evaluating various alternatives for air transportation including: (1) reducing travel frequency, (2) using more commercial or chartered aircraft, and/or (3) adding to or upgrading TVA-controlled aircraft. TVA's analyses include consideration of obtaining a Cessna Citation Ultra jet and, most recently, obtaining a newer Beech King Air 350.

During this review period, TVA used the King Air an average of 10.3 trips per month, which was comparable to the 11 trips per month we reported in our previous review. Similarly, TVA used a chartered aircraft about 4.5 trips per month during the period, also comparable to the 4 trips per month reported in our previous review. However, in FY 2000 charter flights increased to about 5.2 trips per month. At least one TVA Board member was on board for about 62 percent of the King Air and 37 percent of the chartered trips. Many of the remaining King Air and chartered flights included TVA's Chief Operating Officer or a Vice President on board. On occasion, members of Congress were on board the King Air or chartered flights.

While usage has not increased significantly, total annual costs for charter and King Air flights have risen. Figure 8 below

compares costs for the three fixed-wing options during (1) the review period of October 1, 1997, through December 31, 2000, and (2) FY 2000.

COSTS FOR THE THREE FIXED-WING OPTIONS			
	Aircraft Type		
	TVA King Air <sup>1</sup>	Charter	Commercial
Average Number of Passengers per Flight during review period <sup>2</sup>	3.5	3.9	1
Average Number of Passengers per Flight in FY 2000	3.5	4.4	1
Average Cost per Flight during review period	\$7,502	\$4,746	\$394 <sup>#</sup>
Average Cost per Flight in FY 2000	\$8,020	\$5,190	\$407 <sup>#</sup>
Average Cost per Passenger during review period	\$2,156	\$1,231	\$394 <sup>#</sup>
Average Cost per Passenger in FY 2000	\$2,276	\$1,183	\$407 <sup>#</sup>
Average Number of Flights per Month during review period	10.3	4.5	NA
Average Number of Flights per Month in FY 2000	10.3	5.2	NA
Average Cost per Month during review period	\$77,323	\$21,174	NA
Average Cost per Month in FY 2000	\$82,878	\$26,815	NA
<sup>1</sup> Average costs per flight were derived from total costs (including fixed and variable cost components) allocated to all flights during the period. The costs in this table do not reflect any specific flights. Costs in this report include lease costs for the King Air. Costs included in our 1997 review did not include lease costs and, therefore, are not comparable to costs in this report. <sup>2</sup> Review period was from October 1, 1997 through December 31, 2000. <sup>#</sup> Cost is for all TVA passengers. NA = Not applicable—this information is no longer meaningful because TVA has expanded its definition for "executive travel."			

Figure 8

Management noted costs have risen for the following reasons: (1) separation of fixed-wing management from rotary-wing management caused overhead costs to be spread over a smaller base, (2) TVA's travel volume has increased causing the hiring of a fourth fixed-wing pilot, and (3) aircraft fuel costs have increased. While the average number of flights per month has remained relatively constant during the review period, the King Air logged about 10 percent more air time per flight during FY 2000 than in the previous two years.

Figure 9 below presents the annual costs for the King Air and chartered flights since FY 1997.

<b>ANNUAL COSTS FOR THE TVA-LEASED KING AIR AND CHARTERED FLIGHTS</b>			
<b>TVA King Air 350</b>	<b>Cost (\$000s)</b>	<b>Flight Hours</b>	<b>Cost per Flight Hour</b>
FY 1997	\$666	470.7	\$1,415
FY 1998	\$955	408.5	\$2,338
<sup>4</sup> FY 1999	\$818	368.8	\$2,218
FY 2000	\$995	431.2	\$2,306
First Qtr, FY 2001	\$248	122.5	\$2,025
<b>TVA Charter Flights</b>			
FY 1997	\$159	N/A	N/A
FY 1998	\$275	211.8	\$1,298
<sup>4</sup> FY 1999	\$142	100.8	\$1,409
FY 2000	\$322	179.6	\$1,792
First Qtr, FY 2001	\$87	46.8	\$1,858

**Figure 9**

We have included a detailed listing of flight information for the period October 1, 1999, through December 31, 2000, for (1) the King Air as Appendix E, and (2) charter flights as Appendix F.

### Management's Comments

Management indicated the statement "While usage has not increased significantly, total annual costs for charter and King Air flights has [*sic*] risen by 61 percent" was misleading. Management provided additional analysis as follows:

- A correction of reported fiscal year 1998 cost for the King Air.
- Explanations regarding the increase in restated FY 1998 King Air expense from the FY 1997 costs. TVA attributed the 43 percent increase to a breakout and transfer of rotary-wing operations from executive travel, a re-allocation of fixed

<sup>4</sup> Management attributed the reduction in FY 1999 executive air travel to the fact that TVA had only one director in place for over half of FY 1999.

costs, and the hiring of an additional pilot. After adjusting for the revised FY 1998 costs, the increase for the King Air was about 4 percent for the period of FY 1998 through FY 2000.

- Management noted the number of charter flight hours has not increased, and the number of flights was approximately the same for FY 1997<sup>5</sup> and FY 2000. The re-computed per flight cost based on number of trips increased 14 percent which is a reasonable amount considering inflation for three years and the increase in fuel prices.
- Management requested a footnote regarding the reduction in FY 1999 air travel. Management attributed this reduction due to the fact that only one director was in place for over half of FY 1999, significantly reducing the level of executive travel during this period.

Additionally, management indicated that TVA is no longer including consideration of a Cessna Citation Ultra jet in the analyses of alternatives. TVA indicated they are still considering replacement of the current King Air with a newer one due to the need to perform an engine overhaul. TVA desires to make this replacement without a material increase in TVA's lease payments.

Lastly, TVA management informally provided some revised data for the King Air and charter flights.

### **Our Evaluation of Management's Comments**

We revised the report to delete the reference to the 61 percent increase in charter and King Air costs. While we agree with management that the primary cost increase was from FY 1997 to FY 1998, the total cost for King Air and chartered flights was about 61 percent higher in FY 2000 than in FY 1997. We also added a footnote regarding the reduction in executive travel for FY 1999 being attributed to the fact that only one Board member was in place. Additionally, we revised the FY 1998 King Air costs to reflect revised data provided by management.

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<sup>5</sup> Management subsequently informed us their analysis was for FY 1998, not FY 1997.

## RELOCATION OF PERSONNEL AND PROGRAMS TO NASHVILLE

In September 1996, TVA announced that certain positions within TVA's newly created Customer Service and Marketing (CS&M) organization, including CS&M's Executive Vice President, were being relocated to Nashville. According to TVA management, TVA's Board of Directors made the relocation decision as an integral part of TVA's overall competitive strategy. TVA management believed the relocation would (1) improve the effectiveness of TVA's customer service, marketing, and economic development activities, and (2) raise TVA's profile in an important market.

We previously reported to Congressman Wamp that as of November 25, 1997, TVA had relocated 104 CS&M and six Chief Administrative Officer<sup>6</sup> (CAO) employees to Nashville. TVA filled the CS&M positions via 57 direct employee transfers, 44 internal employee selections, and three new hires from outside TVA. The six CAO positions were filled via two direct transfers and four internal employee selections. Transfer benefit costs and relocation incentive bonuses associated with the move totaled \$1,080,946 and \$227,500, respectively.

For the period November 26, 1997, through December 31, 2000, CS&M transferred 27 employees to Nashville and filled 114 vacant Nashville positions via internal employee selections and new hires from outside TVA. During the same period, TVA also filled a total of six open Nashville positions in the Chief Financial Officer (CFO), Communications and Government Relations, and Administration organizations. The positions were filled via one direct transfer, three internal employee selections, and two new hires.

TVA incurred \$3,377,223 in transfer benefit costs and \$258,445 in relocation incentive bonuses related to the Nashville selections since our previous report. The CS&M transfer benefit costs totaled \$3,354,170; whereas, the transfer benefit costs for CFO, Communications and Government Relations, and Administration employees totaled \$23,053. Relocation incentive bonuses totaling \$258,445 were paid to 59 CS&M employees. None of the CFO, Communications and Government Relations,

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<sup>6</sup> TVA has reorganized and replaced the CAO position with an Executive Vice President, Administration.

or Administration selections received relocation incentive bonuses.

We reported the Nashville lease costs for office space in our report on property leases and purchases (Congressional Advisory Report 2000-917P). In addition, we are conducting a review of the justification for the costs associated with Highland Ridge Tower in Nashville (Congressional Advisory Report 2001-037P).

### **Management's Comments**

TVA management provided editorial comments regarding some of the reported personnel relocation numbers.

### **Our Evaluation of Management's Comments**

We discussed TVA management's comments regarding the reported personnel relocation numbers with TVA management and determined no revision was necessary.

## APPROPRIATIONS COMMITTEE

## SUBCOMMITTEES:

## INTERIOR

COMMERCE, JUSTICE,  
STATE, AND JUDICIARYLEGISLATIVE  
VICE-CHAIRMAN

## BUDGET COMMITTEE



**ZACH WAMP**  
CONGRESS OF THE UNITED STATES  
THIRD DISTRICT, TENNESSEE

November 3, 2000

**WASHINGTON OFFICE:**  
423 CANNON BUILDING  
WASHINGTON, D.C. 20515  
(202) 225-3271 - (202) 225-3494 Fax

**DISTRICT OFFICES:**  
FEDERAL BUILDING, SUITE 100  
200 ADMINISTRATION ROAD  
OAK RIDGE, TN 37830  
(423) 483-3366 - (423) 576-3221 Fax  
FEDERAL BUILDING, SUITE 126  
900 GEORGIA AVENUE  
CHATTANOOGA, TN 37402  
(423) 756-2342 - (423) 756-6613 Fax

Mr. Richard F. Chambers  
Inspector General  
Tennessee Valley Authority  
400 West Summit Hill Dr  
Knoxville, TN 37902-1401

Dear Richard:

In 1997, I asked then TVA Inspector General George Prosser to conduct a top-to-bottom review of TVA management practices. I was convinced then, as I am today, that close scrutiny of TVA is necessary if we are to provide a strong agency to face the future. That is why I am writing to ask for an update on these issues that were reviewed in 1997.

I am still concerned about the issue of executive compensation. Recent news stories indicate that at least one of TVA's top officials will retire soon with compensation packages that exceed his salary, with several others likely to receive benefits far in excess of what is reasonable. I would also like a report on any of the other issues that were reviewed in 1997 that need to be updated, including: bonuses and benefits for top level management; the relocation of personnel and programs to Nashville; spending on special events, including the TVA barges; air transportation; TVA advertisements; consulting contracts; property leases and purchases.

Any finding of waste, fraud and abuse uncovered during the review should be included in your report. I request that you deliver a written report on all of the areas directly to me by February 1, 2001, before disclosing it to anyone outside the Office of the Inspector General. Finally, I would like a report on any of these areas that have been investigated by the IG since the initial 1997 report.

Thank you for your help in this matter. Congressional oversight of the Tennessee Valley Authority is a serious responsibility.

Warmest regards,

*Zach Wamp*  
Zach Wamp  
Member of Congress

*Thank you sir!*

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Event Date	Event Name	Event Location	Purpose	Guests	
<b>COMMUNITY SUPPORT EVENTS</b>					
May-98	<b>Power Play Scholarship Golf Tournament</b>	West Point, MS	Fund raiser for Distributor Scholarship Fund	Power Distributors, TVA Board, Executives and Management	
May-00	<b>Power Play Scholarship Golf Tournament</b>	Young Harris, GA	Fund raiser for Distributor Scholarship Fund	Power Distributors, TVA Board, Executives and Management	
May-99	<b>Power Play Scholarship Golf Tournament</b>	Young Harris, GA	Fund raiser for Distributor Scholarship Fund	Power Distributors, TVA Board, Executives and Management	
<b>CONFERENCES AND WORKSHOPS</b>					
March-00	<b>Financial Analyst Conference</b>	New York, NY	Ensure TVA retains triple-A bond ratings (and lower interest costs)	Financial Analysts	
March-98	<b>Financial Analyst Conference</b>	New York, NY	Ensure TVA retains triple-A bond ratings (and lower interest costs)	Financial Analysts	
March-99	<b>Financial Analyst Conference</b>	New York, NY	Ensure TVA retains triple-A bond ratings (and lower interest costs)	Financial Analysts	
November-00	<b>Investment Challenge-Conference and Jobs Fair</b>	Nashville, TN	To allow students an opportunity to interview with top ranked companies and attend seminars and hear from speakers recognized as experts in their field.	Students and Faculty of Colleges involved in the Investment Challenge	
November-99	<b>Investment Challenge-Conference and Jobs Fair</b>	Nashville, TN	To allow students an opportunity to interview with top ranked companies and attend seminars and hear from speakers recognized as experts in their field.	Students and Faculty of Colleges involved in the Investment Challenge	
October-98	<b>Investment Challenge-Conference and Jobs Fair</b>	Nashville, TN	To allow students an opportunity to interview with top ranked companies and attend seminars and hear from speakers recognized as experts in their field.	Students and Faculty of Colleges involved in the Investment Challenge	
April-99	<b>Diversity Conference</b>	Nashville, TN	Increase understanding of managing diversity of all types	National diversity experts	

Note: We relied on the information TVA management provided and have not independently verified the costs associated with each event.

April-00	<b>Investment Challenge-Conference and Awards Ceremony</b>	Nashville, TN	To recognize those universities who have outperformed the S&P 500 the previous calendar year.	Students and Faculty of Colleges involved in the Investment Challenge	
April-99	<b>Investment Challenge-Conference and Awards Ceremony</b>	Nashville, TN	To recognize those universities who have outperformed the S&P 500 the previous calendar year.	Students and Faculty of Colleges involved in the Investment Challenge	
October-99	<b>Fall Industrial Conference</b>	Nashville, TN	TVA Executive Updates with Customer's Corporate Officials	Directly Served Customers, TVA Board, Execs and Mgmt	
October-98	<b>Fall Industrial Conference</b>	Nashville, TN	TVA Executive Updates with Customer's Corporate Officials	Directly Served Customers, TVA Board, Execs and Mgmt	
April-98	<b>Investment Challenge-Conference and Awards Ceremony</b>	Nashville, TN	To recognize those universities who have outperformed the S&P 500 the previous calendar year.	Students and Faculty of Colleges involved in the Investment Challenge	
October-00	<b>Fall Industrial Conference</b>	Nashville, TN	TVA Executive Updates with Customer's Corporate Officials	Directly Served Customers, TVA Board, Execs and Mgmt	
April-98	<b>East - West Conference</b>	Nashville, TN	Enhance business opportunities for Valley businesses and encourage foreign businesses to invest or increase investments in the Valley	Political leaders, Power Distr, Valley and foreign businessmen, Econ Dev professionals. Potential Customers, TVA Mgt	
May-00	<b>Energy Oasis 2000 - TVA Reception</b>	NP	TVA Energy Survey User's Conference	Power Distributors, TVA Management	
Mar/Apr-00	<b>Annual Rural Development</b>	Cookeville, TN	Cosponsor (w/USDA & TTU) to	Political Leaders, Power	

Event Date	Event Name	Event Location	Purpose	Guests	
	<b>Conference</b>		enhance community leaders' and econ developers' knowledge of key issues facing rural communities and new programs and tools.	Distributors, Economic Dev professionals, Business Leaders, TVA Board, Execs/Mgmt	
April-98	<b>Minority Market Place 1998 trade fair with Mid South Minority Business Council</b>	Memphis, TN	Link corporate purchasing officials with minority supplier representatives.	Minority business and corporations	
April-99	<b>Minority Market Place 1999 trade fair with Mid South Minority Business Council</b>	Memphis, TN	Link corporate purchasing officials with minority supplier representatives.	Minority business and corporations	

NP = Not provided by TVA.

June-99	<b>WATTEC/Tennessee's Technology Summit</b>	Knoxville, TN	Assist in sponsoring Valley wide technology summit in Knoxville and Oak Ridge, TN and preconference reception	Political Leaders, Power Distributors, Economic Dev professionals, Business Leaders, TVA Board, Execs/Mgmt	
June-00	<b>Tennessee Valley 2000 Economic Summit</b>	Huntsville, AL	Assist in sponsoring Valley wide economic summit and TVA Reception in Huntsville, AL	Political Leaders, Power Distributors, Economic Dev professionals, Business Leaders, TVA Board, Execs/Mgmt	
August-00	<b>Minority Market Place 2000 trade fair with Tennessee Minority Supplier Development Council</b>	Nashville, TN	Link corporate purchasing officials with minority supplier representatives.	Minority business and corporations	
September-00	<b>Minority Market Place 1999 trade fair with Tennessee Minority Supplier Development Council</b>	Nashville, TN	Link corporate purchasing officials with minority supplier representatives.	Minority business and corporations	
September-00	<b>Minority Market Place 2000 trade fair with Mid South Minority Business Council</b>	Memphis, TN	Link corporate purchasing officials with minority supplier representatives.	Minority business and corporations	
August-98	<b>Minority Market Place 1998 trade fair with Tennessee Minority Supplier Development Council</b>	Nashville, TN	Link corporate purchasing officials with minority supplier representatives.	Minority business and corporations	
April-99	<b>International Facilities Management Association Conference</b>	Nashville, TN	TVA sponsorship of the Certified Facilities Manager (CFM) Exam Review, CFM Exam, and Utilities Council Annual Spring Meeting	NP	
August-99	<b>China Delegation</b>	Knoxville, TN	Further develop positive relationships with the People's Republic of China	China Visitors	
Mar/Apr-99	<b>Annual Rural Development Conference</b>	Cookeville, TN	Cosponsor (w/USDA & TTU) to enhance community leaders' and econ developers' knowledge of key issues facing rural communities and new programs and tools.	Political Leaders, Power Distributors, Economic Dev professionals, Business Leaders, TVA Board, Execs/Mgmt	
August-98	<b>China Delegation</b>	Knoxville, TN	Further develop positive relationships with the People's Republic of China	China Visitors	
June-98	<b>Quality Community Conference</b>	Nashville, TN	Enhance economic developers' and community leaders' knowledge to better evaluate, understand and use economic indicators & trends in local planning	Political Leaders, Power Distributors, Econ Dev prof, Business Leaders, TVA Mgmt	
Mar/Apr-98	<b>Annual Rural Development Conference</b>	Cookeville, TN	Cosponsor (w/USDA & TTU) to enhance community leaders' and econ developers' knowledge of key issues facing rural communities and new programs and tools.	Political Leaders, Power Distributors, Economic Dev professionals, Business Leaders, TVA Board, Execs/Mgmt	
September-98	<b>EPRI Conference</b>	Chattanooga, TN	NP	NP	

Event Date	Event Name	Event Location	Purpose	Guests	
July-98	Alabama Consumer Owned Power Distributor Assoc - TVA Reception	NP	TVA Reception	Power Distributors, TVA Board, Executives and Management	
May-98	TVPPA Annual Conference - TVA Luncheon	Nashville, TN	Conference Lunch	Power Distributors, TVA Board, Executives and Management	
May-99	TVPPA Annual Conference - TVA Luncheon	Nashville, TN	Conference Lunch	Power Distributors, TVA Board, Executives and Management	
May-00	TVPPA Annual Conference - TVA Luncheon	Nashville, TN	Conference Lunch	Power Distributors (PD), TVA Board, Executives and Management	
August-00	Quality Community Conference	Nashville, TN	Enhance economic developers' and community leaders' knowledge to better evaluate, understand and use economic indicators & trends in local planning	Political Leaders, Power Distributors, Econ Dev prof, Business Leaders, TVA Mgmt	
CUSTOMER APPRECIATION EVENTS					
Oct/Nov-00	energy right® Awards Celebration	Nashville, TN	Recognize Trade Allies	Trade Allies, PDs, TVA Board, Execs and Mgmt	
Oct/Nov-99	energy right® Awards Celebration	Nashville, TN	Recognize Trade Allies	Trade Allies, PDs, TVA Board, Execs and Mgmt	
Oct/Nov-98	energy right® Awards Celebration	Nashville, TN	Recognize Trade Allies	Trade Allies, PDs, TVA Board, Execs and Mgmt	
March-99	NRECA Conference - TVA Reception	Anaheim, CA	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	
June-98	APPA Conference - TVA Reception	San Antonio, TX	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	
June-99	APPA Conference - TVA Reception	Salt Lake City, UT	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	
March-00	NRECA Conference - TVA Reception	Orlando, FL	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	

### SPECIAL EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000

Mar-98	<b>NRECA Conference - TVA Reception</b>	Nashville, TN	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	450	\$84,000
June-00	<b>APPA Conference - TVA Reception</b>	Orlando, FL	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	350	\$76,000
November-99	<b>Middle TN Customer Appreciation</b>	Nashville, TN	TVA hosted reception	Power Distributors, TVA Board, Executives and Management	400	\$33,400
May-99	<b>NRECA Legislative Rally - TVA Reception</b>	Washington, DC	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150-200	\$20,000
May-00	<b>NRECA Legislative Rally - TVA Reception</b>	Washington, DC	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150-200	\$17,000
January-98	<b>APPA Conference - Reception &amp; Dinner</b>	Washington, DC	NP	NP	109	\$15,129
May-98	<b>NRECA Legislative Rally - TVA Reception</b>	Washington, DC	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150-200	\$14,300
December-99	<b>Mississippi Customer Appreciation Dinner -Christmas</b>	NP	TVA hosted reception and dinner	Power Distributors, TVA Board, Executives and Management	90	\$13,900
March-00	<b>TVPPA Legislative Rally - TVA Reception</b>	Washington, DC	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	200	\$13,600
December-00	<b>Huntsville Utilities 60th Anniversary Event</b>	Huntsville, AL	TVA Reception and Dinner	Power Distributors, TVA Board, Executives and Management	150	\$13,600
November-99	<b>Kentucky Customer Appreciation</b>	NP	TVA hosted reception and dinner	Power Distributors, TVA Board, Executives and Management	90	\$13,500
September-99	<b>Nashville Electric Service 60th Anniversary Event</b>	Nashville, TN	TVA Reception and Dinner	Power Distributors, TVA Board, Executives and Management	100	\$13,000
August-98	<b>EPA of Mississippi</b>	NP	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150	\$12,200
April-00	<b>Regional Directly Served Appreciation Dinner - Mississippi</b>	NP	Recognize MS Directly Served Customers	Directly Served Customers, TVA Board, Execs and Mgmt	53	\$12,100
June-98	<b>Mississippi Municipal League</b>	NP	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150	\$10,400
December-00	<b>Mississippi Customer Appreciation Dinner -Christmas</b>	NP	TVA hosted reception and dinner	Power Distributors, TVA Board, Executives and Management	90	\$7,400
<b>FACILITY DEDICATIONS</b>						
January-00	<b>Public Power Institute - Ribbon Cutting Ceremony</b>	Muscle Shoals, AL	To dedicate the newly created Public Power Institute	NP	500	\$16,120
December-99	<b>Wilson Visitor Center Reopening</b>	Wilson Dam, AL	Facility dedication and public visibility	NP	150	\$15,000
October-00	<b>South Holston Open House</b>	South Holston Hydro Plant	Celebrate 50 years of operation and give public access to the plant.	NP	1,200	\$10,000

## SPECIAL EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000

RECEPTIONS						
July-99	<b>Canadian Trade Mission Reception - 4th of July Celebration (in concert w/US Ambassador to Canada)</b>	Ottawa, Canada	Enhance business opportunities for Valley businesses and encourage Canadian businesses to invest or increase investments in the Valley	US and Canadian national officials, State of Tenn officials, Valley and Canadian businessmen, TVA Exec/Mgt	6,500	\$170,000
January-99	<b>Director Hayes Farewell</b>	Various	TVA/TVPPA reception honoring Director Hayes	Power Distributors, TVA Board, Executives and Management	350	\$34,000
May-00	<b>MLGW Reception</b>	Memphis, TN	NP	NP	200	\$32,030
March-99	<b>Reception - Pulaski Electric System</b>	Pulaski, TN	In conjunction with TVA Board meeting	Power distributors, federal and local government officials, business and community leaders, and economic development directors	147	\$28,808
April-00	<b>Pontotoc Electric Power Association Reception</b>	Pontotoc, MS	In conjunction with TVA Board meeting	See March 1999	500	\$25,611
July-98	<b>Johnson City Customer Appreciation Reception</b>	Greenville, TN	In conjunction with TVA Board meeting	See March 1999	181	\$19,834
February-00	<b>Chattanooga Electric Power Board Dinner/Reception</b>	Chattanooga, TN	In conjunction with TVA Board meeting	See March 1999	25	\$16,496
June-99	<b>Mississippi Power Distributor Reception</b>	West Point, MS	NP	Mississippi Power Distributors	290	\$16,341
August-99	<b>Supplier Reception</b>	Chattanooga, TN	NP	TVA and Suppliers	40	\$15,856
March-00	<b>Nashville Electric Service Breakfast</b>	Nashville, TN	In conjunction with TVA Board meeting	See March 1999	32	\$15,540
February-98	<b>Board Reception hosted by Louisville Utilities</b>	Louisville, Mississippi	In conjunction with TVA Board meeting	See March 1998	77	\$15,358
May-98	<b>MLGW Reception/ Dinner</b>	Memphis, TN	NP	NP	9	\$14,733
June-99	<b>U.S. Embassy Reception</b>	London, England	Reception honoring Gov. Don Sundquist (TN) in conjunction with his Trade Mission to the UK and Germany	Tennessee business leaders and elected officials; London business leaders; Media executives; Industrial prospects; Members of Parliament	300	\$14,721
December-98	<b>Breakfast with Paducah Power System</b>	Paducah, KY	In conjunction with TVA Board meeting	See March 1999	35	\$13,911
January-00	<b>TVA Board Meeting</b>	Muscle Shoals, AL	TVA Board Hosted Reception	See March 1999	NP	\$13,700
April-98	<b>Board Meeting</b>	Bowling Green, KY	In conjunction with TVA Board meeting	See March 1999	200	\$13,661
September-98	<b>Carroll County Electric Board Breakfast</b>	Huntingdon, TN	In conjunction with TVA Board meeting	See March 1999	22	\$13,483
February-98	<b>Luncheon hosted by East</b>	Meridian, MS	NP	NP	200	\$13,057

### SPECIAL EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000

	<b>Mississippi EPA and Meridian Naval Base - Diesel Generators Dedication</b>					
January-00	<b>Reception honoring new TVA Board</b>	Various	TVA/Distributor reception honoring the new TVA Board	Power Distributors, TVA Board, Executives and Management	200	\$11,500
March-98	<b>Board Meeting and Breakfast</b>	Arab, AL	In conjunction with TVA Board meeting	See March 1999	121	\$11,459
March-99	<b>Kentucky Coal Suppliers - Dinner, Reception, and Forum</b>	Lexington, KY	NP	Kentucky Coal Suppliers	72	\$11,433
August-98	<b>Carroll County Electric Dept. Dinner (Hosted by CCED)</b>	Huntingdon, TN	NP	NP	22	\$11,383
January-99	<b>Southeast Distributors Breakfast</b>	Chattanooga, TN	NP	Distributors	50	\$11,212
June-98	<b>Clarksville Department of Electric Breakfast w/ Ken Spradlin</b>	Clarksville, TN	In conjunction with TVA Board meeting	See March 1998 above	36	\$10,997
October-98	<b>Nashville Electric Service Board - Breakfast</b>	Nashville, TN	In conjunction with TVA Board meeting	See March 1998 above	47	\$10,061
<b>SPECIAL GROUPS</b>						
June-99	<b>US Women's Open</b>	West Point, MS	Reception and event sponsorship	Power Distributors, Directly Served Customers, TVA Board, Economic Development officials, TVA Management	775	\$276,600
Mar-00	<b>Bristol Races (Mar &amp; Aug races are primary events)</b>	Bristol, TN	Enhance business recruitment opportunities and customer relationships	Tenn & local govt. officials, Business prospects, Power Customers, Econ Dev professionals, Business Leaders, TVA Execs/Mgmt	300	\$50,000
Aug-00	<b>Bristol Races (Mar &amp; Aug races are primary events)</b>	Bristol, TN	Enhance business recruitment opportunities and customer relationships	Tenn & local govt. officials, Business prospects, Power Customers, Econ Dev professionals, Business Leaders, TVA Execs/Mgmt	300	\$50,000
February-98	<b>State Chiefs Coordination Meeting</b>	Huntsville, AL	Coordination with state resource water quality and agricultural offices—as well as Valley environmental groups.	State and local officials; representatives of environmental groups	40-60	\$17,500
March-99	<b>State Chiefs Coordination Meeting</b>	Huntsville, AL	Coordination with state resource water quality and agricultural offices—as well as Valley environmental groups.	State and local officials; representatives of environmental groups	40-60	\$17,500

**SPECIAL EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000**

February-00	<b>State Chiefs Coordination Meeting</b>	Huntsville, AL	Coordination with state resource water quality and agricultural offices--as well as Valley environmental groups.	State and local officials; representatives of environmental groups	40-60	\$17,500
May-00	<b>Regional Resource Stewardship Council</b>	Huntsville, AL	Regional council meetings used by TVA to obtain advice from the public and private sectors on the management of the natural resources of the Tennessee Valley	Regional Resource Stewardship Council; General Public	75	\$10,600

**BARGE EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000**

Event Date	Location	Guests	Number of Attendees (Estimated)	Total Event Cost
<b>COMMUNITY SUPPORT BARGE EVENTS</b>				
June-00	Chattanooga Riverbend Festival	General Public	5,000	\$28,036
June-99	Chattanooga Riverbend Festival	General Public	5,000	\$22,687
June-98	Chattanooga Riverbend Festival	General Public	5,000	\$21,000
<b>CUSTOMER APPRECIATION BARGE EVENTS</b>				
October-98	Gallatin, TN	Distributors and local leaders	475	\$18,708
October-97	Gallatin, TN	Distributors and local leaders	327	\$16,600
June-98	Watts Bar (Spring City, TN)	Distributors and local leaders	200	\$14,620
September-98	Clarksville, TN	Distributors and local leaders	225	\$11,252
July-98	Huntsville, AL	Distributors and local leaders	220	\$11,248
September-98	Paris, TN	Distributors and local leaders	225	\$10,771
October-97	Florence, AL	Distributors and local leaders	268	\$10,600
August-98	Pickwick, TN	Distributors and local leaders	225	\$10,430
October-98	Florence, AL	Distributors and local leaders	250	\$10,347
August-98	Columbus, MS	Distributors and local leaders	225	\$10,214
June-98	Chattanooga, TN	Distributors and local leaders	334	\$9,692
September-98	Paducah, KY	Distributors and local leaders	175	\$9,637

























March 21, 2001

Richard F. Chambers, ET 4C-K

CUSTOMER SERVICE AND MARKETING COMMENTS ON DRAFT  
CONGRESSIONAL ADVISORY REPORT - PROJECT 2001-914C

We have reviewed the subject draft report to Congressman Wamp and offer the following comments, by report section.

**Executive Summary**

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Mark O. Medford  
Executive Vice President  
Customer Service and Marketing  
HRT 12D-NST

March 30, 2001

Richard F. Chambers, ET 4C-K

DRAFT CONGRESSIONAL ADVISORY REPORT – UPDATE ON  
SELECTED MANAGEMENT PRACTICES – PROJECT 2001-914C

I have a problem with including the two major finance functions, the Financial Analysts Conference and the Investment Challenge Program as *special events*. They do not fit neatly into any of the seven categories defined as special events on page 6 of the report and the identified purposes of TVA special events does not match the purposes of such programs.

To elaborate:

**The Financial Analyst Conference**

This function is most directly comparable to what a private company might host as their Annual Shareholder Meeting. Obviously, since TVA does not have shareholders, that name would be a misnomer, but we do have thousands of investors who, collectively, hold \$25 billion of TVA debt securities.

This meeting is held for the purpose of communicating with these investors (and their representatives) the current financial and operating condition of TVA. The attendees at this function include major institutional investors, financial analysts who prepare research reports for such investors, the three major rating agencies and a representative from OMB who, arguably, attends as our equity holder representative.

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This function serves several purposes, but two of the most important are (1) to provide a forum for reviewing past performance of this investment manager group, and (2) to provide an opportunity for identifying and recruiting candidates for employment in TVA's financial organization.

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Richard F. Chambers  
Page 2  
March 30, 2001

The second major purpose is designed to afford exposure to the half-dozen most talented finance students at nineteen schools throughout the TVA service territory. Leading candidates are recruited for full-time positions at TVA following their graduation. Since the Investment Challenge Program began, it has provided more than fifty percent of all new hires into the CFO organization.

**Conclusion**

It is my preference that these two functions be excluded from the categorization of *special events*. They are business meetings, they are performance meetings, they are education and recruiting programs... but they are not *special events*.

Absent excluding these functions, the language that "...TVA uses special events ... as an effective means ... to enhance communications with customer and economic development partners" should be changed to reflect the true nature of these programs.



David N. Smith  
Chief Financial Officer  
ET 12A-K

DNS:DSW

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Chambers response.doc

March 30, 2001

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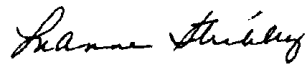
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LeAnne Stribley  
Executive Vice President,  
Administration  
ET 12A-K

DLS:gdb

cc; Dick Tallent, ET 12A-K  
Cleo Norman, ET 5D-K

TVA Office of the Inspector General Congressional Advisory Report  
2001-914C

Update on Selected Management Practices

02-April-2001

Part Two

### SPECIAL EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000

Mar-98	<b>NRECA Conference - TVA Reception</b>	Nashville, TN	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	450	\$84,000
June-00	<b>APPA Conference - TVA Reception</b>	Orlando, FL	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	350	\$76,000
November-99	<b>Middle TN Customer Appreciation</b>	Nashville, TN	TVA hosted reception	Power Distributors, TVA Board, Executives and Management	400	\$33,400
May-99	<b>NRECA Legislative Rally - TVA Reception</b>	Washington, DC	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150-200	\$20,000
May-00	<b>NRECA Legislative Rally - TVA Reception</b>	Washington, DC	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150-200	\$17,000
January-98	<b>APPA Conference - Reception &amp; Dinner</b>	Washington, DC	NP	NP	109	\$15,129
May-98	<b>NRECA Legislative Rally - TVA Reception</b>	Washington, DC	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150-200	\$14,300
December-99	<b>Mississippi Customer Appreciation Dinner -Christmas</b>	NP	TVA hosted reception and dinner	Power Distributors, TVA Board, Executives and Management	90	\$13,900
March-00	<b>TVPPA Legislative Rally - TVA Reception</b>	Washington, DC	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	200	\$13,600
December-00	<b>Huntsville Utilities 60th Anniversary Event</b>	Huntsville, AL	TVA Reception and Dinner	Power Distributors, TVA Board, Executives and Management	150	\$13,600
November-99	<b>Kentucky Customer Appreciation</b>	NP	TVA hosted reception and dinner	Power Distributors, TVA Board, Executives and Management	90	\$13,500
September-99	<b>Nashville Electric Service 60th Anniversary Event</b>	Nashville, TN	TVA Reception and Dinner	Power Distributors, TVA Board, Executives and Management	100	\$13,000
August-98	<b>EPA of Mississippi</b>	NP	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150	\$12,200
April-00	<b>Regional Directly Served Appreciation Dinner - Mississippi</b>	NP	Recognize MS Directly Served Customers	Directly Served Customers, TVA Board, Execs and Mgmt	53	\$12,100
June-98	<b>Mississippi Municipal League</b>	NP	TVA Board Hosted Reception	Power Distributors, TVA Board, Executives and Management	150	\$10,400
December-00	<b>Mississippi Customer Appreciation Dinner -Christmas</b>	NP	TVA hosted reception and dinner	Power Distributors, TVA Board, Executives and Management	90	\$7,400
<b>FACILITY DEDICATIONS</b>						
January-00	<b>Public Power Institute - Ribbon Cutting Ceremony</b>	Muscle Shoals, AL	To dedicate the newly created Public Power Institute	NP	500	\$16,120
December-99	<b>Wilson Visitor Center Reopening</b>	Wilson Dam, AL	Facility dedication and public visibility	NP	150	\$15,000
October-00	<b>South Holston Open House</b>	South Holston Hydro Plant	Celebrate 50 years of operation and give public access to the plant.	NP	1,200	\$10,000

## SPECIAL EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000

RECEPTIONS						
July-99	<b>Canadian Trade Mission Reception - 4th of July Celebration (in concert w/US Ambassador to Canada)</b>	Ottawa, Canada	Enhance business opportunities for Valley businesses and encourage Canadian businesses to invest or increase investments in the Valley	US and Canadian national officials, State of Tenn officials, Valley and Canadian businessmen, TVA Exec/Mgt	6,500	\$170,000
January-99	<b>Director Hayes Farewell</b>	Various	TVA/TVPPA reception honoring Director Hayes	Power Distributors, TVA Board, Executives and Management	350	\$34,000
May-00	<b>MLGW Reception</b>	Memphis, TN	NP	NP	200	\$32,030
March-99	<b>Reception - Pulaski Electric System</b>	Pulaski, TN	In conjunction with TVA Board meeting	Power distributors, federal and local government officials, business and community leaders, and economic development directors	147	\$28,808
April-00	<b>Pontotoc Electric Power Association Reception</b>	Pontotoc, MS	In conjunction with TVA Board meeting	See March 1999	500	\$25,611
July-98	<b>Johnson City Customer Appreciation Reception</b>	Greenville, TN	In conjunction with TVA Board meeting	See March 1999	181	\$19,834
February-00	<b>Chattanooga Electric Power Board Dinner/Reception</b>	Chattanooga, TN	In conjunction with TVA Board meeting	See March 1999	25	\$16,496
June-99	<b>Mississippi Power Distributor Reception</b>	West Point, MS	NP	Mississippi Power Distributors	290	\$16,341
August-99	<b>Supplier Reception</b>	Chattanooga, TN	NP	TVA and Suppliers	40	\$15,856
March-00	<b>Nashville Electric Service Breakfast</b>	Nashville, TN	In conjunction with TVA Board meeting	See March 1999	32	\$15,540
February-98	<b>Board Reception hosted by Louisville Utilities</b>	Louisville, Mississippi	In conjunction with TVA Board meeting	See March 1998	77	\$15,358
May-98	<b>MLGW Reception/ Dinner</b>	Memphis, TN	NP	NP	9	\$14,733
June-99	<b>U.S. Embassy Reception</b>	London, England	Reception honoring Gov. Don Sundquist (TN) in conjunction with his Trade Mission to the UK and Germany	Tennessee business leaders and elected officials; London business leaders; Media executives; Industrial prospects; Members of Parliament	300	\$14,721
December-98	<b>Breakfast with Paducah Power System</b>	Paducah, KY	In conjunction with TVA Board meeting	See March 1999	35	\$13,911
January-00	<b>TVA Board Meeting</b>	Muscle Shoals, AL	TVA Board Hosted Reception	See March 1999	NP	\$13,700
April-98	<b>Board Meeting</b>	Bowling Green, KY	In conjunction with TVA Board meeting	See March 1999	200	\$13,661
September-98	<b>Carroll County Electric Board Breakfast</b>	Huntingdon, TN	In conjunction with TVA Board meeting	See March 1999	22	\$13,483
February-98	<b>Luncheon hosted by East</b>	Meridian, MS	NP	NP	200	\$13,057

### SPECIAL EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000

	<b>Mississippi EPA and Meridian Naval Base - Diesel Generators Dedication</b>					
January-00	<b>Reception honoring new TVA Board</b>	Various	TVA/Distributor reception honoring the new TVA Board	Power Distributors, TVA Board, Executives and Management	200	\$11,500
March-98	<b>Board Meeting and Breakfast</b>	Arab, AL	In conjunction with TVA Board meeting	See March 1999	121	\$11,459
March-99	<b>Kentucky Coal Suppliers - Dinner, Reception, and Forum</b>	Lexington, KY	NP	Kentucky Coal Suppliers	72	\$11,433
August-98	<b>Carroll County Electric Dept. Dinner (Hosted by CCED)</b>	Huntingdon, TN	NP	NP	22	\$11,383
January-99	<b>Southeast Distributors Breakfast</b>	Chattanooga, TN	NP	Distributors	50	\$11,212
June-98	<b>Clarksville Department of Electric Breakfast w/ Ken Spradlin</b>	Clarksville, TN	In conjunction with TVA Board meeting	See March 1998 above	36	\$10,997
October-98	<b>Nashville Electric Service Board - Breakfast</b>	Nashville, TN	In conjunction with TVA Board meeting	See March 1998 above	47	\$10,061
<b>SPECIAL GROUPS</b>						
June-99	<b>US Women's Open</b>	West Point, MS	Reception and event sponsorship	Power Distributors, Directly Served Customers, TVA Board, Economic Development officials, TVA Management	775	\$276,600
Mar-00	<b>Bristol Races (Mar &amp; Aug races are primary events)</b>	Bristol, TN	Enhance business recruitment opportunities and customer relationships	Tenn & local govt. officials, Business prospects, Power Customers, Econ Dev professionals, Business Leaders, TVA Execs/Mgmt	300	\$50,000
Aug-00	<b>Bristol Races (Mar &amp; Aug races are primary events)</b>	Bristol, TN	Enhance business recruitment opportunities and customer relationships	Tenn & local govt. officials, Business prospects, Power Customers, Econ Dev professionals, Business Leaders, TVA Execs/Mgmt	300	\$50,000
February-98	<b>State Chiefs Coordination Meeting</b>	Huntsville, AL	Coordination with state resource water quality and agricultural offices—as well as Valley environmental groups.	State and local officials; representatives of environmental groups	40-60	\$17,500
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May-00	<b>Regional Resource Stewardship Council</b>	Huntsville, AL	Regional council meetings used by TVA to obtain advice from the public and private sectors on the management of the natural resources of the Tennessee Valley	Regional Resource Stewardship Council; General Public	75	\$10,600

**BARGE EVENTS AND COSTS—FY 1998 THROUGH DECEMBER 31, 2000**

Event Date	Location	Guests	Number of Attendees (Estimated)	Total Event Cost
<b>COMMUNITY SUPPORT BARGE EVENTS</b>				
June-00	Chattanooga Riverbend Festival	General Public	5,000	\$28,036
June-99	Chattanooga Riverbend Festival	General Public	5,000	\$22,687
June-98	Chattanooga Riverbend Festival	General Public	5,000	\$21,000
<b>CUSTOMER APPRECIATION BARGE EVENTS</b>				
October-98	Gallatin, TN	Distributors and local leaders	475	\$18,708
October-97	Gallatin, TN	Distributors and local leaders	327	\$16,600
June-98	Watts Bar (Spring City, TN)	Distributors and local leaders	200	\$14,620
September-98	Clarksville, TN	Distributors and local leaders	225	\$11,252
July-98	Huntsville, AL	Distributors and local leaders	220	\$11,248
September-98	Paris, TN	Distributors and local leaders	225	\$10,771
October-97	Florence, AL	Distributors and local leaders	268	\$10,600
August-98	Pickwick, TN	Distributors and local leaders	225	\$10,430
October-98	Florence, AL	Distributors and local leaders	250	\$10,347
August-98	Columbus, MS	Distributors and local leaders	225	\$10,214
June-98	Chattanooga, TN	Distributors and local leaders	334	\$9,692
September-98	Paducah, KY	Distributors and local leaders	175	\$9,637

























March 21, 2001

Richard F. Chambers, ET 4C-K

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CONGRESSIONAL ADVISORY REPORT - PROJECT 2001-914C

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Chambers response.doc

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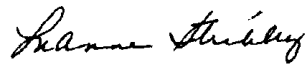
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ET 12A-K

DLS:gdb

cc; Dick Tallent, ET 12A-K  
Cleo Norman, ET 5D-K

TVA Office of the Inspector General Audit Report 2002-021V

Final Report - Survey of Information Services Personnel Who Directly  
Support TVA Nuclear

08-April-2002

April 8, 2002

Michael R. Harding, BR 4T-C  
Diane J. Bunch, SP 5A-C

FINAL REPORT - AUDIT 2002-021V - SURVEY OF INFORMATION SERVICES  
PERSONNEL WHO DIRECTLY SUPPORT TVA NUCLEAR

Attached is the subject final report. Your response to our draft report, which included your management decision, is included with this report. Please provide us with information about the completion of your action plans within one year from the date of this memorandum.

Recipients of this report are responsible for safeguarding it to prevent publication or other improper disclosure. If you have any questions, please contact Thomas B. Johnson, Senior Auditor, at 632-6256 or David P. Wheeler, Manager, Advisory Services Audits, at 632-4770. We appreciate the courtesy and cooperation received from your staff during this review.

Ben R. Wagner  
Assistant Inspector General  
(Audits)  
ET 4C-K

TBJ:PCF  
Attachment

cc (Attachment):

Robert J. Beecken, LP 6A-C  
Maureen Dunn, ET 11A-K  
Curtis D. Phillips, ET 4C-K  
Ellen Robinson, ET 12A-K  
D. LeAnne Stribley, ET 12A-K  
David P. Wheeler, ET 4C-K  
OIG File No. 2002-021V

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## **APPENDICES**

- A. IS SURVEY RESULTS COMPARED TO 2000 TVAN RESULTS
- B. CATEGORIZED SUBSTANTIVE COMMENTS
- C. MANAGEMENT'S RESPONSE TO OUR DRAFT REPORT

## **SYNOPSIS**

At the request of TVA Nuclear (TVAN) management, we assessed the willingness of the Information Services (IS) workforce, with position responsibilities involving the direct support of TVAN activities, to report nuclear safety and quality issues. We determined that the IS workforce does not differ from the TVAN workforce with regard to willingness to report nuclear safety and quality issues. However, for issues unrelated to nuclear safety and quality, the IS workforce indicated they were less willing to voice unpopular views.

## **BACKGROUND**

TVAN is responsible for assuring the continued safe operation of its nuclear plants. TVAN relies on (1) good communications between employees and their supervisors, (2) program intermediaries like the Concerns Resolution Program to confidentially handle concerns from those uncomfortable raising concerns with their management, and (3) corrective action programs to track and document resolution of operational problems. TVAN's interest in open communications applies not only to TVAN workers but also to other TVA workers, including IS, who directly support TVAN activities. Some TVA IS employees and contractors provide development or support of automated data processing programs, networks, and equipment for nuclear operations.

The Office of the Inspector General (OIG) periodically assesses the willingness of employees to raise nuclear concerns. These assessments are done as part of our review of the Concerns Resolution Program. The program is responsible for ensuring that safety and quality concerns are promptly and effectively resolved. All employees and contractors with nuclear responsibilities are encouraged to express concerns or issues to TVAN management, or alternately, directly to the Concerns Resolution Staff (CRS) for differing views and opinions relative to the safe operation of the plants.

Through five statistically valid surveys since 1994, the OIG has developed a baseline of data which quantifies the expressed willingness of TVAN employees and contractors to raise nuclear concerns. Our most recent TVAN review, Special Project 2000-918P, was issued on December 20, 2000. Our

survey questionnaire has been reviewed by the University of Tennessee's Statistical and Computational Consulting Center. We initiated this review at the request of TVAN management to determine how the IS workforce with position responsibilities involving the direct support of TVAN activities compares to the TVAN workforce regarding willingness to raise issues.

## **OBJECTIVE, SCOPE, AND METHODOLOGY**

Our objective was to assess whether IS employees and contractors with position responsibilities involving the direct support of TVAN activities differ in their willingness to report nuclear safety and quality issues from the overall nuclear population. To achieve our objective, we:

- Identified IS employees and contractors who have position responsibilities involving the direct support of TVAN activities. To identify them we:
  1. Requested the human resources manager in IS and IS senior staff to provide a list of all individuals in their departments who have position responsibilities involving the direct support of TVAN activities.
  2. Worked with responsible managers to identify IS contractors who have position responsibilities involving the direct support of TVAN activities.
  3. Obtained a list of all individuals in IS who are badged for unescorted access at the nuclear sites.

Based on the information from above, we determined there were 192 members of the population.<sup>1</sup>

- Randomly selected and interviewed 84 of the 192 people in the population to determine to what extent the workforce in support of TVAN activities was willing to report nuclear safety and quality issues. We told each interviewee that the interview was confidential and that results would be reported in summary form only. Since 1994, we have achieved at least a 95 percent confidence level and a maximum margin

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<sup>1</sup> Two individuals initially identified as members of the population had official reporting relationships to TVAN but daily responsibilities working directly with IS. We removed one individual from the population when we learned that his or her actual responsibility was primarily to TVAN. The second individual worked so closely with IS that we kept him or her in the population even though the individual is officially assigned to TVAN.

of error of +/- 5 percent for each question. (Some questions had response rates resulting in exception rates of as much as 20 percent.) In this survey of the IS workforce, we achieved a 95 percent confidence level and a maximum margin of error of +/- 7.4 percent for each question. Our maximum exception rate was 25 percent.

- Compared results to the latest review we did for TVAN.
- Categorized statements volunteered by survey responders further explaining their answers or raising additional points of interest.<sup>2</sup>

We did not perform specific tests for compliance with laws and regulations applicable to nuclear operations beyond the processes of collecting and analyzing survey responses as described above. Also, due to the nature of this audit, we did not perform the work that might be required to express an opinion on TVAN's overall system of internal controls for receiving and handling nuclear concerns. This audit was performed in accordance with generally accepted government audit standards.

## **FINDINGS**

Our survey results indicated the IS workforce in direct support of TVAN activities is as willing as the TVAN workforce to raise nuclear safety and quality concerns, but less willing to raise unpopular views on non-nuclear issues. In summary:

- The IS workforce survey results were generally consistent with the results of our 2000 TVAN workforce survey with regard to nuclear safety or quality issues. The results indicated the IS workforce generally felt free to report nuclear safety and quality problems. However, we also found that a lower percentage of the IS workforce than TVAN is aware of the CRS.
- The IS workforce is less willing than the TVAN workforce to express an unpopular view when the substance of the concern is unrelated to nuclear safety and quality. Furthermore, comments volunteered during the interviews

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<sup>2</sup> We did not categorize any comments in such a way that the confidentiality of the survey respondent would be lost.

suggest those reluctant to express their views may be concerned about suffering adverse consequences for open communication.

Appendix A provides a summary comparison of the results of this survey with the results from our 2000 TVAN workforce survey. Appendix B categorizes substantive comments volunteered during the interviews.

## **NUCLEAR SAFETY AND QUALITY CONCERNS**

The IS survey responses were consistent with the 2000 TVAN survey responses with respect to raising nuclear concerns. (See Appendix A.) Specifically, we found:

- All of the IS workforce said they would report nuclear safety or quality problems through some avenue. Also, of the IS workforce who were aware of the CRS, 96 percent said they would report a nuclear safety or quality problem to the CRS as compared to 95 percent of the TVAN workforce.<sup>3</sup> Of the IS workforce who would not report to CRS, one feared it would hurt his/her career, one would report the problem elsewhere, and one was uncertain of CRS's role.
- About the same percentage of the IS workforce (97.6 percent) as the TVAN workforce (98.4 percent) would report a nuclear concern to their supervisor. Those in the IS survey who would not report to their supervisor said they would report to their nuclear site contact instead because their IS site managers were not involved in nuclear matters.
- The same percentage of the IS workforce who were aware of the CRS (91 percent) as the TVAN workforce felt free to raise intimidation and harassment concerns to CRS.<sup>4</sup> Of those in the IS workforce who would not, three stated they feared reprisal, two would report the problem elsewhere, and one was unaware that CRS handled intimidation and harassment issues.

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<sup>3</sup> Those in the survey who were not aware of the Concerns Resolution Program were not asked this question.

<sup>4</sup> Same as footnote 3, above.

- About the same percentage of the IS workforce (83 percent) as the TVAN workforce (81 percent) believed problems at the nuclear sites were being resolved well or very well.<sup>5</sup>

The IS survey responses were not consistent with the 2000 TVAN survey responses with respect to awareness of the Concerns Resolution Program. Specifically, only 83 percent of the IS workforce was aware of the CRS as compared to 98 percent of the TVAN workforce. We believe the lower awareness of the IS workforce is attributable to their location. Most of them are not located at the nuclear sites, while most of the TVAN workforce is.

## **RECOMMENDATION**

We recommend TVAN management take further steps to ensure workers directly supporting TVAN are aware of the Concerns Resolution Program.

## **NON-NUCLEAR ISSUES**

The IS survey responses were inconsistent with the 2000 TVAN survey responses with respect to willingness to voice unpopular views when the substance of the concern is unrelated to nuclear safety and quality.

While the IS workforce stated they would raise concerns to their supervision (98 percent would raise nuclear issues to their supervisors and 96 percent would raise non-nuclear issues to their supervisors), they did not “feel (as) free to express an unpopular view.” Specifically, we found only 75 percent of the IS workforce felt free to express an unpopular view compared to 86 percent of the TVAN workforce. Furthermore, our TVAN workforce surveys since 1994 have all shown an 80 percent or better affirmative response to this question.

We believe the difference between IS and TVAN on expressing unpopular views could be a significant difference. Our survey results show IS employees are equally willing to

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<sup>5</sup> Those who had no opinion or direct knowledge were excluded from the calculation. A smaller percentage of the IS workforce expressed an opinion because most of the IS workforce are not located at the sites.

raise nuclear concerns as TVAN, but not as willing (as a group) to raise unpopular, non-nuclear views. Although the reluctance of 25 percent of the IS workforce to raise unpopular views probably does not impact nuclear assurances, it may impact IS effectiveness.

During our audit survey, many IS respondents volunteered further explanations or additional information to clarify their point of view. We categorized the comments we understood to be substantive. If an individual offered substantive comments on more than one issue, we recorded more than one comment. We recorded 66 comments from 46 individuals volunteering additional information of the 84 people we interviewed. A summary of the comments is presented in Appendix B.

Thirty-nine percent of the comments we recorded indicated a reluctance to express views based on a belief that one might suffer adverse consequences for open communication. In our opinion, the percentage of comments enunciating this view is high.

We do not know whether the views of the IS workforce in direct support of TVAN activities are indicative of the whole IS workforce on this matter. However, IS management shared with us results of the IS workforce pilot of the TVA Cultural Health Index survey. From 2000 to June 2001, IS improved from 55 percent to 67 percent of respondents affirming that, "My supervisor reacts to new ideas by behaving more like a participant/supporter/coach than an observer/critic/judge." These results indicate that since 2000 IS has made advances in encouraging open communications.

## **RECOMMENDATION**

We recommend IS management foster continued improvements by addressing the IS workforce perceptions that cause them to be less willing to express an unpopular view.

## **MANAGEMENT'S COMMENTS**

IS and TVAN management commented on our draft report. They suggested some editorial changes which we accepted. Management also agreed, in general, with our findings and recommendations. They documented steps they have taken

and steps they are planning to address the findings. (See Appendix C.)

## **AUDITOR'S RESPONSE**

We agree with all management's suggested changes to the draft report as well as management's planned actions to address the findings.

TVA Office of the Inspector General Audit Report 2003-008F

Audit Report - Review of TVA'S Tax-Equivalent Payments

14-February-2003

February 14, 2003

Randy P. Trusley, WT 5C-K

## AUDIT REPORT - 2003-008F - REVIEW OF TVA'S TAX-EQUIVALENT PAYMENTS

As part of our fiscal year (FY) 2003 audit plan, we reviewed TVA's FY 2002 tax-equivalent payments. As discussed below, we found (1) TVA correctly calculated its tax-equivalent payments in accordance with the TVA Act and (2) no significant or material differences between the way TVA calculated and distributed the tax-equivalent payments and relevant TVA Act requirements. Furthermore, controls were in place and functioning to ensure data reliability for the calculations. We noted the written procedures for Revenue and Realty Services were not current; however, they are in the process of updating their procedures.

According to Section 13 of the TVA Act, TVA is to render financial assistance to states and local governments in which TVA carries on power operations and has acquired properties previously subject to state and local taxes. TVA pays five percent of its gross proceeds from the sale of power for the preceding fiscal year to the states, excluding (1) power used by TVA, (2) power sold to any other government agency, and (3) interchange sales. The tax-equivalent payments are distributed to the states based on TVA power sales revenue and the book value of TVA-owned power property in each state in the prior fiscal year. The tax-equivalent payments to state governments are redistributed to local governments according to formulas determined by each state.

The vast majority of tax-equivalent payments are made directly to the states; however, in certain situations, TVA also makes tax-equivalent payments directly to counties. For example, if TVA purchases property which had been used to generate power prior to TVA's purchase and the former owner paid taxes on the property, TVA may make a direct payment to the county in lieu of taxes. When payments are made directly to the county, the amount paid to a county is deducted from the payment to the state. Of the \$328.3 million of tax equivalent payments in FY 2002, \$326.8 million was paid to the states and \$1.5 million was paid directly to the counties.

The Chief Financial Officer's Accounting and Financial Reporting group calculates TVA's tax-equivalent payments based on information obtained from three groups: Revenue, Asset Accounting, and Realty Services. Revenue and Asset Accounting are responsible for providing information related to TVA's proceeds from power sales and power property holdings in each state, respectively, which is used in determining the distribution of tax payments to each state. Realty Services is responsible for providing land acquisition and disposal information which is used in determining TVA's tax-equivalent payments to counties.

Based on our review, we concluded (1) TVA correctly calculated its tax-equivalent payments in accordance with the TVA Act, (2) no significant or material differences between the way TVA calculated and distributed the tax-equivalent payments and relevant TVA Act requirements, and (3) controls were in place and functioning to ensure data reliability for the calculations. However, Revenue and Realty Services are in the process of updating their procedures.

Randy P. Trusley  
Page 2  
February 14, 2003

This report is issued for informational purposes only. Accordingly, no response is necessary. If you have any questions, please call E. David Willis, Lead Auditor, at 632-6997 or Jill M. Matthews, Manager, Financial Audits, at 632-4730. We appreciate the courtesy and cooperation received from your staff during this review.



Ben R. Wagner  
Assistant Inspector General  
(Audits)  
ET 4C-K

EDW:SDB  
Attachment

cc (Attachment):

G. Donald Hickman, ET 4C-K  
Andrew W. Holmes, WT 5C-K  
Ellen Robinson, ET 12A-K  
David N. Smith, ET 12A-K  
Donna J. Terzak, WT 5C-K  
OIG File No. 2003-008F

## **OBJECTIVES, SCOPE, AND METHODOLOGY**

Our objectives were to determine if (1) TVA correctly calculated its tax-equivalent payments in accordance with the TVA Act, (2) TVA correctly calculated the distribution of payments to various states and local governments, and (3) controls were in place to ensure data reliability for the calculations. Our scope was limited to fiscal year (FY) 2002 tax-equivalent payments and related documentation. To achieve our objectives, we:

- Interviewed Revenue, Asset Accounting, Accounting and Financial Reporting (AFR), and Realty Services personnel.
- Obtained procedures used in the calculation of (1) tax-equivalent payments and distribution of those payments by AFR and (2) power property book values for use in the calculation of the distribution of tax-equivalent payments.
- Flowcharted Revenue, Asset Accounting, and AFR processes used in the calculation of tax-equivalent payments.
- Verified AFR was receiving land acquisition and disposal records from Realty Services.
- Recalculated the FY 2002 tax-equivalent payments.
- Verified the accuracy of the FY 2001 revenue from power sales used to calculate tax-equivalent payments to states by:
  - Tracing the total proceeds to the FY 2001 trial balance.
  - Verifying Chief Financial Officer's (CFO) ratio of state power revenue to total power revenue.
  - Tracing the FY 2001 proceeds from the sale of power to monthly power sales information.
- Verified the accuracy of the FY 2001 power property book value used to calculate tax-equivalent payments to states by:
  - Tracing book value totals to TVA's FY 2001 trial balance.
  - Verifying CFO's ratio of power property book value in each state to total power property book value.
- Judgmentally reviewed payments to 11 counties which received tax-equivalent payments over \$30,000 to ensure the payments to counties agreed with information maintained by AFR.

The audit did not include any testing for compliance with laws and regulations other than the TVA Act. However, nothing came to our attention indicating noncompliance with any laws or regulations. This audit was performed in accordance with generally accepted government auditing standards.

TVA Office of the Inspector General Audit Report 2004-063F to the  
President and Chief Operating Officer

Review of Internal Controls over Nuclear Fuel

23-March-2005



SENSITIVE INFORMATION

Office of the Inspector General

# *Audit Report*

To the President and Chief  
Operating Officer

## REVIEW OF INTERNAL CONTROLS OVER NUCLEAR FUEL

Senior Auditor  
Thomas M. Blair

Audit 2004-063F  
March 23, 2005

The information contained within this document is the property of the Tennessee Valley Authority and has been determined to be sensitive. Its contents are not to be further distributed without prior approval of the Inspector General or his designee.

SENSITIVE INFORMATION

SENSITIVE INFORMATION



Memorandum from the Office of the Inspector General

March 23, 2005

Oswald J. Zeringue, ET 12A-K

AUDIT 2004-063F – REVIEW OF INTERNAL CONTROLS OVER NUCLEAR FUEL

Attached is the subject audit report for your review. This report does not include any recommendations and is to be used for information purposes only. Accordingly, no response is necessary.

We appreciate the courtesy and cooperation of your staff during this review. If we can be of further assistance or if you have questions, please contact Mike Blair, Senior Auditor, at (865) 632-6056 or Gregory C. Jaynes, Manager, Financial and Operational Audits, at (865) 632-7023.

Ben R. Wagner  
Assistant Inspector General  
(Audits and Inspections)  
ET 3C-K

TMB:SDB  
Attachment

cc (Attachment):

T. A. Keys, BR 3F-C  
Tom D. Kilgore, ET12A-K  
Richard W. Moore, ET 4C-K  
Michael E. Rescoe, ET 12A-K  
Ellen Robinson, ET 12A-K  
Karl W. Singer, LP 6A-C  
OIG File No. 2004-063F

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SENSITIVE INFORMATION

## **SYNOPSIS**

As part of our Fiscal Year (FY) 2004 audit plan, we assessed the adequacy of Tennessee Valley Authority's (TVA) internal controls over the valuing, recording, and inventory reporting of nuclear fuel. Our audit included the controls in place during the period October 1, 2003, to September 30, 2004. During this period, TVA (1) completed three reactor reloads and (2) recorded \$131.9 million in fuel expense, \$43.0 million in fuel disposal costs, and \$2.5 million in fuel-related inspection and handling costs. As of September 30, 2004, TVA's nuclear fuel inventory balance was \$3.5 billion.

In summary, we determined that the internal control design was adequate to mitigate the risk of nuclear fuel not being appropriately valued, recorded, and reported. We also found the key control activities related to accounting and inventory reporting for nuclear fuel to be operating effectively.

## **BACKGROUND**

TVA Nuclear Fuel (NF) is responsible for providing a total core energy rate estimate, obtaining fuel through TVA Procurement, calculating the monthly fuel expense for each unit, and implementing a spent fuel storage and disposal strategy. In addition, TVA is responsible for reporting the interval inventory results to the Nuclear Regulatory Commission (NRC).

Using data provided by NF, the Chief Financial Officer's (CFO) organization is responsible for calculating a burn amortization rate at each reload and posting appropriate fuel related accounting entries. In addition, CFO is responsible for disclosing related information for nuclear fuel in the financial statements.

The amortization rate, calculated at the beginning of each unit fuel reload cycle, remains constant throughout the burn cycle. The length of the burn cycle varies based upon the type of unit. The cycle is either:

- 18 months for the Pressure Water Reactors (PWR) at Watts Bar Nuclear Plant (WBNP) and Sequoyah Nuclear Plant (SNP).

- 24 months for the Boiling Water Reactors (BWR) at Browns Ferry Nuclear Plant (BFNP).

During FY 2004, WBNP Unit 1, BFNP Unit 3, and SNP Unit 2, were reloaded and new amortization rates were calculated, as shown in Figure 1.

<u>UNIT</u>	<u>PRIOR AMORTIZATION RATE (¢ MBtu)</u>	<u>NEW AMORTIZATION RATE (¢ MBtu)</u>
Watts Bar Unit 1	26.7572	25.3851
Browns Ferry Unit 3	28.8584	30.3797
Sequoyah Unit 2	25.9643	24.2840

**Figure 1**

The amortization rate is used along with the unit monthly generation amounts to determine the amount of fuel expense to be charged to the unit each month.

The Department of Energy (DOE) has entered into an agreement with TVA to produce Tritium at WBNP Unit 1. DOE reimburses TVA for production costs based upon a specific monthly amount, currently \$99,000. As of September 30, 2004, TVA accrued reimbursements of approximately \$1.2 million for the FY.

In addition, TVA pays DOE \$1 per Mills Per Kilowatt Hour (M/kWh) for disposal of nuclear fuel based upon net unit generation. The amount is accrued on a monthly basis and paid to DOE on a quarterly basis. For FY 2004, TVA expensed \$43.0 million in disposal costs.

## **OBJECTIVE, SCOPE, AND METHODOLOGY**

As part of our FY 2004 audit plan, we reviewed TVA's internal controls over accounting for nuclear fuel. Our objective was to determine whether the controls over the valuing, recording, and inventory reporting of nuclear fuels were adequate. The scope of the audit was controls that applied to nuclear fuel for the period October 1, 2003, to September 30, 2004.

We obtained an understanding of controls and processes relating to the nuclear fuel by:

- Reviewing policies, procedures, and regulations for nuclear fuel.
- Interviewing NF and CFO personnel.
- Identifying key risks, key control objectives, and key control activities pertaining to accounting for nuclear fuel.

We assessed control adequacy by interviewing selected TVA Nuclear and CFO personnel and reviewing transactions for the period October 1, 2003, to September 30, 2004. Specifically, we:

- Judgmentally selected 12 monthly transactions totaling \$21,079,367 to determine if the amounts recorded for fuel expense were accurate and timely.
- Judgmentally selected 15 transactions totaling \$12,530,803 to determine if the amounts recorded for fuel disposal costs were accurate and timely.
- Judgmentally selected 12 transactions totaling \$1,289,016 to determine if the amounts recorded for fuel-related inspection and handling costs were charged to the appropriate short codes and posted accurately and timely.
- Judgmentally selected the \$11,381,277 fourth quarter FY 2004 payment to DOE for fuel disposal costs to determine the accuracy of the quarterly payment.
- Recalculated the amortization rates for the three units which were reloaded in FY 2004, WBNP Unit 1, BFNP Unit 3, and SNP Unit 2 to verify that the amortization rates were calculated correctly.
- Reviewed the accruals for DOE's FY 2004 tritium production reimbursements to TVA, which totaled \$1,188,000, to determine if TVA recorded the appropriate amount and the reimbursement was posted to the correct TVA account.

This audit was performed in accordance with generally accepted government auditing standards.

## **FINDINGS**

We reviewed 2 control objectives and 11 associated key control activities designed to mitigate the risks related to potential improper accounting and inventory reporting related to nuclear fuel. We determined that the control design was adequate to mitigate the risks of nuclear fuel not being appropriately accounted for and reported. Figure 2 provides our overall rating for each control objective. We also found the key controls were operating effectively.

These control ratings are consistent with ratings required by The Public Company Accounting Oversight Board Auditing Standard No. 2. Appendices A and B provide our detailed findings related to the control activities associated with each control objective discussed below. (See Appendix C for the control ratings and corresponding definitions applicable to our assessments of control adequacy.)

Summary of Nuclear Fuel Key Controls		
Risk	Control Objective	Control Adequacy
The risk that nuclear fuel related transactions are not being accurately calculated and classified for financial statement reporting purposes.	Nuclear fuel transaction amounts accurately reflect usage and are appropriately recorded for TVA's financial reporting purposes.	Effective
The risk that TVA's nuclear fuel is not properly inventoried.	Nuclear fuel is required to be continuously tracked and monitored and to be inventoried on a periodic basis.	Effective

**Figure 2**

Control Objective: Nuclear fuel transaction amounts accurately reflect usage and are appropriately recorded for Tennessee Valley Authority's (TVA) financial reporting purposes.			
No.	Control Activities	Findings	Operating Effectiveness
1.	Costs related to each reload are charged to a new short code.	Chief Financial Officer (CFO) generates a new short code to account for all costs on a new burn cycle. Inspection services and other miscellaneous charges are charged to the short code in addition to fuel costs. We reviewed 12 transactions pertaining to fuel-related inspection and handling costs, totaling \$1,289,016, and found (1) the transactions were posted to the appropriate short codes, (2) the correct amounts were posted, and (3) the transactions were processed timely. We noted no discrepancies.	Effective
2.	The CFO uses information provided by Nuclear Fuel (NF) to calculate nuclear fuel amortization rates for each burn cycle.	After each reload, a new amortization rate is calculated by the CFO using energy rate information obtained from NF personnel. Amortization rates were calculated during Fiscal Year (FY) 2004 for three units. We reviewed the data used in the calculation of the amortization rates for the three units reloaded in FY 2004 and recalculated the rates. Data correctly incorporated in the calculation of the new amortization rates included the (1) balance of fuel cost at the end to the previous fuel cycle and (2) new fuel costs. We noted no discrepancies.	Effective
3.	NF and CFO ensure that correct generation factors and amortization rates are used to calculate monthly fuel expenses.	NF calculates the monthly fuel expenses based upon generation information received from the plant and the amortization rate received from CFO at the beginning of each reload cycle. Fuel expenses are reviewed and posted by the CFO to the appropriate short codes. We reviewed 12 transactions, totaling \$21,079,367, to determine if amounts recorded for fuel expense were accurate and timely. For each transaction, we reviewed the generation reports provided to NF, verified the appropriate amortization rate was used, recalculated the fuel expense, and traced the transaction posting to the appropriate short codes and accounting period. We noted no discrepancies.	Effective
4.	NF calculates the fuel disposal costs and provides transaction amounts to the CFO	TVA pays the Department of Energy (DOE) \$1 per M/kWh for disposal of nuclear fuel based upon net unit generation. The expense is calculated on a monthly basis and posted as an expense to the unit operations. We reviewed 15 transactions totaling \$12,530,803 to determine that the amount recorded for fuel disposal costs were accurate and timely. We recalculated the transaction amounts by applying the gross generation figures to the \$1 per M/kWh disposal rate. We also verified that the transactions were posted accurately and timely. We noted no discrepancies.	Effective

**Control Objective: Nuclear fuel transaction amounts accurately reflect usage and are appropriately recorded for Tennessee Valley Authority's (TVA) financial reporting purposes.**

No.	Control Activities	Findings	Operating Effectiveness
5.	NF reviews and approves the DOE quarterly payment for fuel disposal costs.	We reviewed the fourth quarter FY 2004 payment of \$11,381,277 to DOE for fuel disposal costs to determine the accuracy of the payment. We verified the net generation amounts and the disposal rates used in the calculations and found no discrepancies.	Effective
6.	NF reviews the Watts Bar Nuclear Plant (WBNP) fuel expense account for Tritium production reimbursement.	According to NF personnel, DOE is to reimburse TVA for Tritium production on a monthly basis and the amount is credited against the WBNP fuel expense. During FY 2004, TVA accrued reimbursements of \$1,188,000. We verified that TVA had recorded and properly posted the appropriate amounts.	Effective

Control Objective: Nuclear fuel is required to be continuously tracked and monitored and to be inventoried on a periodic basis.			
No.	Control Activities	Findings	Operating Effectiveness
1.	Policies and procedures have been established and communicated.	TVA has detailed policies and procedures related to the handling, storing, accounting, and reporting of nuclear fuel. Procedures in place are Nuclear Fuel Management (SPP10.8); Nuclear Fuel Procedure NFDP-1; Special Nuclear Material Control (SPP 5.8); Fuel Handling Instruction FHI-1 – Receiving, Returning, Inspecting and Storing New Fuel and Inserts.	Effective
2.	TVA Procedures and the NRC require fuel assemblies be inventoried on a cycle not to exceed 12 months.	In accordance with SPP 5.8, each plant is required to perform a physical inventory of fuel assemblies--at intervals not to exceed 12 months. We reviewed the annual inventory documentation for each plant which is submitted to the Nuclear Regulatory Commission (NRC). We found that each plant had performed the inventory within the 12-month time frame. The inventory documentation listed the locations of each fuel assembly by serial number.	Effective
3.	Serial numbers on assemblies are compared to serial numbers on core loading diagrams prior to inserting into reactor.	Prior to movement of any fuel assemblies, a preplan is prepared documenting the eventual location of each assembly. The annual inventory documentation we reviewed included the core loading diagrams generated from the preplan. The core loading diagrams identified the specific fuel assembly location in the reactor by serial number.	Effective
4.	Spent fuels assemblies removed from each core and placed in either dry cask storage or the spent fuel pool are tracked by serial number.	In accordance with SPP 5.8, each plant is required to perform a physical inventory of fuel assemblies--at intervals not to exceed 12 months. The annual inventory documentation we reviewed identified the spent fuel assemblies in dry cask storage or the spent fuel pool by serial number.	Effective
5.	The Special Nuclear Material Coordinator at each site conducts an inventory on a cycle not to exceed a minimum 12 months.	In accordance with SPP 5.8, each plant is required to perform a physical inventory of nuclear material at intervals not to exceed 12 months. We reviewed the annual inventory documentation which was submitted to the NRC. We found that Watts Bar Nuclear Plant had performed the inventory within the 12-month time frame. The inventory documentation listed the serial number and locations of the materials.	Effective

## **AUDIT CONTROL RATINGS**

### **EFFECTIVE**

The control design is determined to be "effective" if the design and operation of the control provides reasonable assurance that the stated assertion(s) or objective(s) will be achieved and that the stated risk(s) will be reduced to an acceptable level. No weakness in internal controls noted.

### **NEEDS IMPROVEMENT**

The control reviewed "needs improvement" if the control design and/or operation are ineffective or only partially effective in providing reasonable assurance that the stated objective(s) are met or that the stated risk(s) are reduced to an acceptable level. To be classified in the "needs improvement" category, the control gap does not meet the criteria for classification as a significant deficiency or a material weakness as defined below.

### **SIGNIFICANT DEFICIENCY**

A "significant deficiency" in internal controls arises if the control design and/or operation could lead to (1) errors or omissions in the recording, processing, summarization, and reporting of financial/operational data, and/or (2) program/process objectives not being met. A significant deficiency substantially increases the likelihood of errors, irregularities, fraud, disclosure of sensitive or proprietary information, non-compliance with laws and regulations, misappropriation of assets, harm to people, or misstatements of financial/operational data.

### **MATERIAL WEAKNESS**

To be a material weakness, the control design and/or operation would result in a high probability that errors or irregularities in amounts material to the financial statements could occur and not be detected by employees and processes the agency has in place and/or critical program objectives will not be met. This is a complex determination that often must consider (1) the criticality of the program, and (2) the financial statements taken as a whole and the overall financial reporting picture before an informed conclusion can be reached.

TVA Office of the Inspector General Audit Report 2005-011F

Request For Management Decision- New Executive  
Orientation

21-March-2005

SENSITIVE INFORMATION



Memorandum from the Office of the Inspector General

March 21, 2005

John E. Long, Jr., ET 12A-K

REQUEST FOR MANAGEMENT DECISION – AUDIT 2005-011F – NEW EXECUTIVE ORIENTATION

Attached is the subject final report for your review and management decision. As discussed with you on March 17, 2005, the subject report is being issued in presentation format. Your comments have been incorporated in the final report. You are responsible for determining the necessary actions to take in response to our findings. Please advise us of your management decision within 60 days of the date of this report.

Information contained in this report may be subject to public disclosure. Please advise us of any sensitive information in this report which you recommend be withheld.

If you have any questions, please contact Lisa H. Hammer, Senior Auditor, at (865) 632-4731 or Gregory C. Jaynes, Manager, Financial and Operational Audits, at (865) 632-7023. We appreciate the courtesy and cooperation received from your staff during this review.

Ben R. Wagner  
Assistant Inspector General  
(Audits and Inspections)  
ET 3C-K

LHH:SDB

Attachment

cc (Attachment):

Tom D. Kilgore, ET 12A-K  
Richard W. Moore, ET 4C-K  
Ellen Robinson, ET 12A-K  
OIG File No. 2005-011F

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SENSITIVE INFORMATION



# NEW EXECUTIVE ORIENTATION

**Audit 2005-011F**  
**March 21, 2005**

Project Lead  
Lisa H. Hammer

*SENSITIVE INFORMATION*



# Agenda

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- ▶ Background
- ▶ Objective and Scope
- ▶ Methodology
- ▶ Findings
- ▶ Recommendations

# Background

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TVA currently provides orientation to most newly-hired employees through a centralized and standardized hiring and orientation process called the New Employee Experience<sup>1</sup> (NEE).

- ▶ The NEE is the only formalized orientation available to incoming employees, including newly-hired executives. TVA's NEE essentially provides newly-hired employees with 4 days of TVA orientation.
  - ▶ **Day 1:** The hiring process, including badging, fingerprinting, form completion (retirement/benefits), and required online training (e.g., employee discipline and conduct, information technology security, safety).
  - ▶ **Day 2:** Information about TVA as a company.
  - ▶ **Days 3 and 4:** Star 7 training.

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<sup>1</sup> Formerly called New Employee Orientation. In October 2002, the curriculum was modified and the name was changed to New Employee Experience.

## Background (cont'd)

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- ▶ According to the Executive Vice President, Human Resources (HR), the goal is for all employees, including executives, to attend the NEE.
- ▶ After this review was initiated, HR personnel issued a Problem Evaluation Report (PER) on the lack of executive orientation at TVA and began developing a new process for executive orientation.
- ▶ From September 25, 2000, to December 13, 2004, TVA had hired 60 executives.
- ▶ Many executives have been recruited from the private sector.

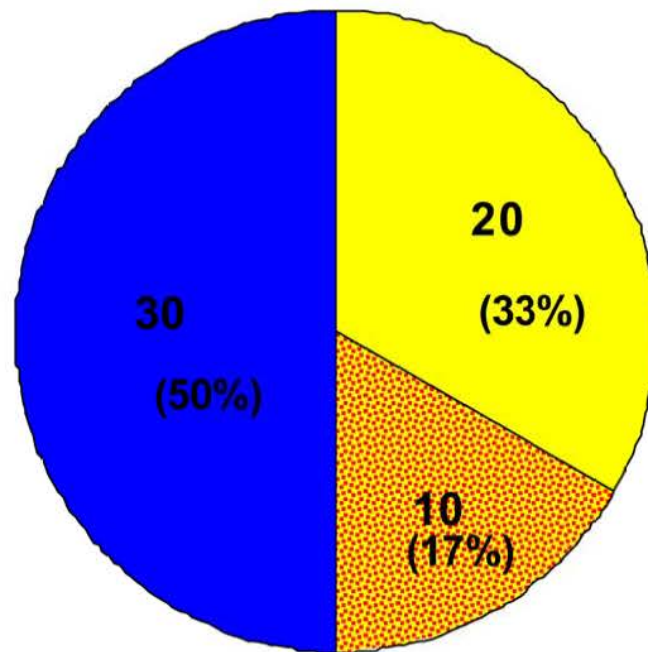
## Background (cont'd)

### Executives Hired During Period Reviewed By TVA Organization

Organization	Number of New Executives
Chief Financial Officer	2
Communications & Government Relations	4
Customer Service & Marketing	2
Economic Development	3
Fossil Power Group	6
Inspector General	2
Information Services	2
Office of General Counsel	1
Strategic Planning	3
Transmission Power Supply	3
TVA Nuclear	32
<b>TOTAL</b>	<b>60</b>

## Background (cont'd)

### Experience of Sixty Executives Hired During Period Reviewed



■ Prior government experience ■ Previous TVA experience ■ No prior government experience

## Objective and Scope

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As part of our Fiscal Year 2005 Audit Plan, we assessed the effectiveness of TVA orientation for new executives.<sup>2</sup>

Our review included executive-level employees hired between September 25, 2000, and December 13, 2004, as identified by TVA.

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<sup>2</sup> For the purposes of this review, an executive is anyone receiving executive compensation and benefits.

# Methodology

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To achieve our objective, we:

- ▶ Obtained and reviewed TVA's documentation related to TVA's NEE and determined whether any TVA executives attended the orientation.
- ▶ Selected 11 of 60 (18%) TVA executives hired during the period reviewed to obtain information about their TVA orientation and any suggestions for future executive orientation. Four of the 11 interviewees attended part or all of the NEE.
- ▶ Obtained and reviewed research related to executive orientation to determine any best practices available.

This review was performed in accordance with generally accepted government auditing standards.

## Finding 1 - New Executive Orientation

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We found that 40 of the 60 (67%) executives hired during the period reviewed attended new employee orientation training. Four of the 11 (36%) executives we interviewed attended part or all of the training.

Examples of comments made by executives interviewed include:

- ▶ The length of the course was too long.
- ▶ Reliance is placed on their Management Assistants or organization's HR managers to provide key information on TVA policies and procedures.

## Finding 2 - Executive Interviews

---

**Executives interviewed identified the following examples of positive practices provided after hire:**

- ▶ One-on-one Ethics Training provided by Office of General Counsel.
- ▶ Predecessor assisted with transition.
- ▶ Current TVA employee provided TVA and prior company knowledge and experience.
- ▶ Meetings scheduled with organizational heads to provide company-wide understanding.
- ▶ Management Assistant provided information.

## Finding 2 - Executive Interviews (cont'd)

**The executives interviewed identified the following deficiencies in their TVA orientation:**

- ▶ TVA culture and key employment requirements are not addressed during recruiting process
  - ▶ Number of unions at TVA versus prior employer
  - ▶ Debt reduction versus stockholder values (public versus private)
  - ▶ Financial disclosure form requirement
- ▶ Differences between TVA and other public and private companies are not well identified
  - ▶ TVA more bureaucratic, more paperwork
    - ▶ Restrictions on use of assigned cars
    - ▶ Personal expense accounts versus TVA's travel and hospitality restrictions
    - ▶ Credit card usage and restrictions

## Finding 2 - Executive Interviews (cont'd)

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**The executives interviewed identified the following deficiencies in their TVA orientation:**

- ▶ Other
  - ▶ Find out information 'as you go'
  - ▶ Need more information on TVA strategy
  - ▶ Need a 'go-to' person

We also found that TVA's current new employee orientation training does not address some specific TVA policies and procedures (e.g., TVA's Business Practices related to hospitality, credit cards, etc.) that may be important to new executives.

## Finding 3 – Orientation Observations and Best Practices

---

**We identified the following Best Practices related to executive orientation not currently practiced at TVA:**

- ▶ Potential hires are informed about the challenges and culture of the company during the recruiting process.
- ▶ Follow-up orientation is provided for several months after hiring.
- ▶ New executives are assigned fellow executives as mentors to help them become acquainted with the company.
- ▶ New Board members are provided Director Education Programs which includes use of a Board Manual, mentoring by other Board members, and on-going company orientation.

# Recommendations

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During its development of a new executive orientation program, TVA should consider the following:

- ▶ Pre-hiring disclosure that provides information about TVA's culture and key employment requirements.
- ▶ Provide specific guidance related to issues of high sensitivity (i.e., use of credit cards, hospitality, etc.) including discussion of previous issues TVA executives have encountered.
- ▶ Periodic orientation sessions with the HR Service Managers assigned to their organization to answer any questions or concerns that may arise during the first few months.
- ▶ Provide incoming executives with a peer executive that could provide information on an as needed basis.

TVA Office of the Inspector General Audit Report 2005-020F

Survey of TVA's Clean Air Program

31-March-2005

March 31, 2005

Richard W. Moore, ET 4C-K

## AUDIT 2005-020F – SURVEY OF TVA'S CLEAN AIR PROGRAM

We have completed our survey of TVA's clean air program. The survey was conducted to determine if there are any areas that may warrant further review.

During our survey we obtained and reviewed information and documentation pertaining to (1) actions TVA had taken regarding TVA's Clean Air program, (2) emissions data which reflect the impact of TVA's clean air program decisions, (3) TVA's plans for meeting future Clean Air requirements, (4) the financial impact of different clean air strategies which TVA has considered, and (5) TVA's analyses of proposed and potential clean air legislation. In summary, we found:

- TVA has evaluated numerous strategies, including:
  - Clear Skies Plus – Purchase allowances to comply with Clear Air Interstate Rule (CAIR).
  - Self Reliant – Accelerate capital spending to comply with CAIR.
  - Delayed Self Reliant – Use a combination of accelerated capital spending and allowance purchases to comply with CAIR.
  - Early Mothballing – Mothball selected units, shutdown all additional clean air construction for three years, and purchase needed power.
  - Later Mothballing – Delay the mothballing of selected units and two clean air projects to later years, requiring the need for limited allowance purchases.
- TVA is in the process of reevaluating its clean air plan (Environmental Control Optimization Study) based the implementation of CAIR and additional information pertaining to potential loss of customers.

Based on the information obtained, we are considering:

- Conducting a Sarbanes Oxley controls review pertaining to TVA's financial reporting in the Clean Air Act area.
- Seeking to serve as an advisor on TVA's Clean Air Act studies and reviews to keep abreast of emerging issues and identify high risk areas.
- Discussing with DeLoitte & Touche whether a benchmarking study to compare TVA's Clean Air strategy to strategies of other utilities would be worthwhile.

If you have any questions, please call Rick L. Taylor, Senior Auditor, at 632-7321 or Gregory C. Jaynes, Manager, Financial and Operational Audits, at 632-7023.



Ben R. Wagner  
Assistant Inspector General  
(Audits and Inspections)  
ET 3C-K

RLT:SDB  
cc: OIG File No. 2005-020F

TVA Office of the Inspector General Audit Report 2005-052F

Follow-Up Review of TVA Hospitality Expenses

23-February-2006



# **FOLLOW-UP REVIEW OF TVA HOSPITALITY EXPENSES**

**Audit 2005-052F**  
**February 23, 2006**

Project Lead  
Lisa H. Hammer



***SENSITIVE INFORMATION***

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- ▶ Background
- ▶ Objectives/Scope
- ▶ Methodology
- ▶ Findings
- ▶ Recommendations
- ▶ Management's Comments and Our Evaluation
- ▶ Appendix
  - ▶ Memorandum dated February 10, 2006, from Randy Trusley to Ben R. Wagner

# Background

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- ▶ TVA's Business Practice 7 (BP 7) states that TVA may provide the following types of hospitality:
  - ▶ Meals and other food services.
  - ▶ Room and equipment rental (associated with hospitality).
  - ▶ Lodging, meals, and travel expenses for visitors, guests, and interviewees.
  - ▶ Entertainment and noncash gifts associated with TVA-sponsored events.
  - ▶ Flowers and decorations for TVA-sponsored events.
  - ▶ Flowers sent due to death or major illness of a TVA employee or member of their immediate family, or external customers.
  - ▶ Incidental expenses associated with a job related injury or death.

# Background (cont'd)

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- ▶ Hospitality expenditures are prohibited for any activity which would likely be perceived by a reasonable member of public as an improper or inefficient use of TVA resources.
- ▶ BP 7 places restrictions and monetary limits on approval authorities.
- ▶ Employees who violate the hospitality policy are subject to discipline.
- ▶ TVA's Accounting Procedure 9 (AP 9) states that hospitality expenses are to be included under cost classification 25W.

In September 2004, the OIG issued a report on TVA's hospitality program.

- ▶ We found no instances of noncompliance with BP 7. However, we noted that TVA's practice of allowing TVA employees to engage in hospitality spending without more specific guidance increased the risk of harm to TVA's reputation.
- ▶ TVA organizations did not accurately classify about \$750,000 in expenses in accordance with AP 9.

# Background (cont'd)

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- ▶ The OIG recommended the TVA Controller implement procedures to improve the reporting, reviewing, and monitoring of hospitality expenditures across TVA organizations to ensure compliance with BP 7 and accurate classification of hospitality expenses in compliance with AP 9.
- ▶ We further recommended the new procedures address each line organization's responsibility to appropriately document the justification for significant hospitality expenditures, including a documented reputation risk analysis to ensure the activity would not likely be perceived by a reasonable member of the public as an improper or inefficient use of TVA resources.
- ▶ The Controller agreed to take the following corrective actions.
  - ▶ Coordinate a revision to BP 7 that required the use of a pre-approval form for all hospitality expenditures in excess of \$500. This form would incorporate a reputation risk analysis including explanation of the proposed business purpose, the benefit to TVA, and any potential risk to TVA's reputation.

## Background (cont'd)

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- ▶ Develop an on-line training module for employees who plan or approve hospitality. All Visa Gold, Visa Purchasing, and convenience check account holders must take the training in order to maintain their accounts.
- ▶ The Controller also plans to test the approval, documentation, and classification of hospitality expenditures in conjunction with the Controller organization's responsibilities for assessing internal controls over financial reporting under TVA's Corporate Accountability and Disclosure Plan.

# Objectives/Scope

---

Our objectives were to:

- (1) Determine the types and level of expenditures for hospitality activities in TVA organizations.
- (2) Assess whether these expenditures were in compliance with policies and procedures related to the hospitality program.

We reviewed TVA's hospitality expenses, totaling \$1.16 million, for the nine-month period of October 1, 2004, through June 30, 2005.

- ▶ In addition, we included over \$784,000 in expenses charged to cost classification 25W for the three-month period of July 1 through September 30, 2005 (adjusted for one organization's year-end events incorrectly charged to another cost classification) solely in order to compare FY 2003 expenses reported in the prior OIG review with FY 2005 expenses. However, we did not perform a detailed review of these expenditures.

This audit was performed in accordance with generally accepted government auditing standards.

# Methodology

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To achieve our objectives, we:

- ▶ Identified hospitality expenses by reviewing (1) TVA gold card purchases, (2) TVA purchasing card and convenience check purchases, (3) miscellaneous payments, (4) hospitality expenses reimbursed through TVA's Employee Reimbursement System, (5) TVA Facilities' Corporate Meetings database, and (6) documentation provided by TVA personnel.
- ▶ Reviewed selected documentation and explanations supporting the hospitality expenses from TVA organizations.
- ▶ Summarized hospitality expenses identified by TVA organization.
- ▶ Statistically selected 58 transactions from 1,745 gold card, purchasing card, and convenience check purchases (3.3 percent) that were not classified as 25W but appeared to be hospitality to determine whether the transactions were accurately classified.

# Methodology (cont'd)

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- ▶ Reviewed TVA procedures related to gold cards, purchasing cards, miscellaneous vouchers, employee reimbursements, employee recognition, and safety awards and recognition.
- ▶ Reviewed TVA's hospitality training module for compliance with BP 7.
- ▶ Obtained and reviewed organizational hospitality procedures for compliance with BP 7.
- ▶ Used guidance provided by (1) BP 7 to determine if the organizations complied with TVA's hospitality guidelines and (2) AP 9 to determine if these expenses were correctly classified.
- ▶ Determined whether individuals who had purchased hospitality during the period reviewed had completed the required hospitality training as reflected in TVA's Automated Training Information System as of November 30, 2005.

# Findings

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1. TVA hospitality expenses for fiscal year (FY) 2005 totaled \$1.94 million, a 70 percent decrease from our prior review of FY 2003 expenses.
2. We found no instances of noncompliance with BP 7 with regard to the activities and type of expenditures allowed. However, we found that some confusion exists with regard to what is considered hospitality.
3. Sixteen purchasing and gold card cardholders that purchased hospitality did not participate in the required hospitality training.
4. TVA organizations did not accurately classify an estimated 37.93 percent of credit card transactions as hospitality in accordance with AP 9.
5. BP 7 does not address (1) purchases of hospitality with a purchasing card, or (2) use of TVA's hospitality pre-approval form.

# Finding 1 - Types and Level of Expenditures

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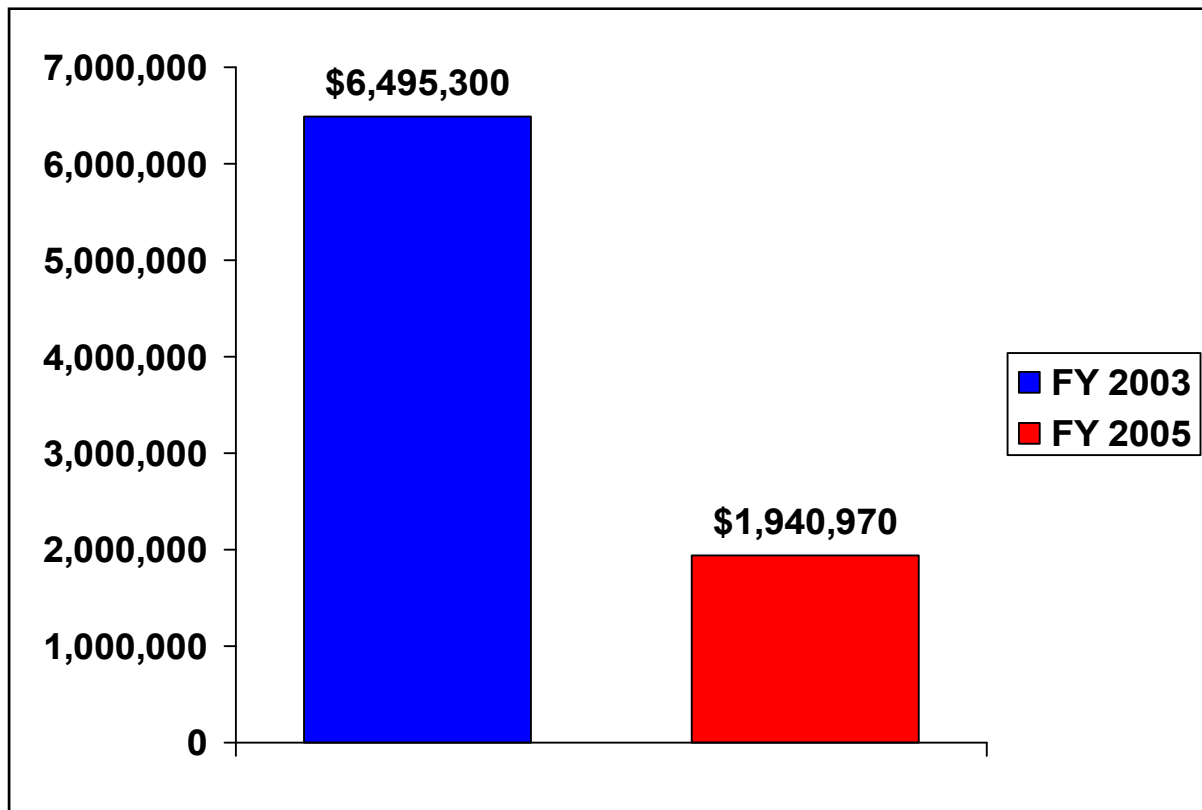
During our September 2004 review of TVA hospitality, we identified \$6.50 million in FY 2003 hospitality expenses. We were able to identify TVA hospitality expenses for FY 2005 totaling \$1.94 million, a 70 percent decrease from FY 2003 as compared to FY 2005.

We reviewed \$1.16 million in hospitality expenses purchased using gold and purchasing cards, convenience checks, miscellaneous vouchers, and employee reimbursements. Types of hospitality purchased included:

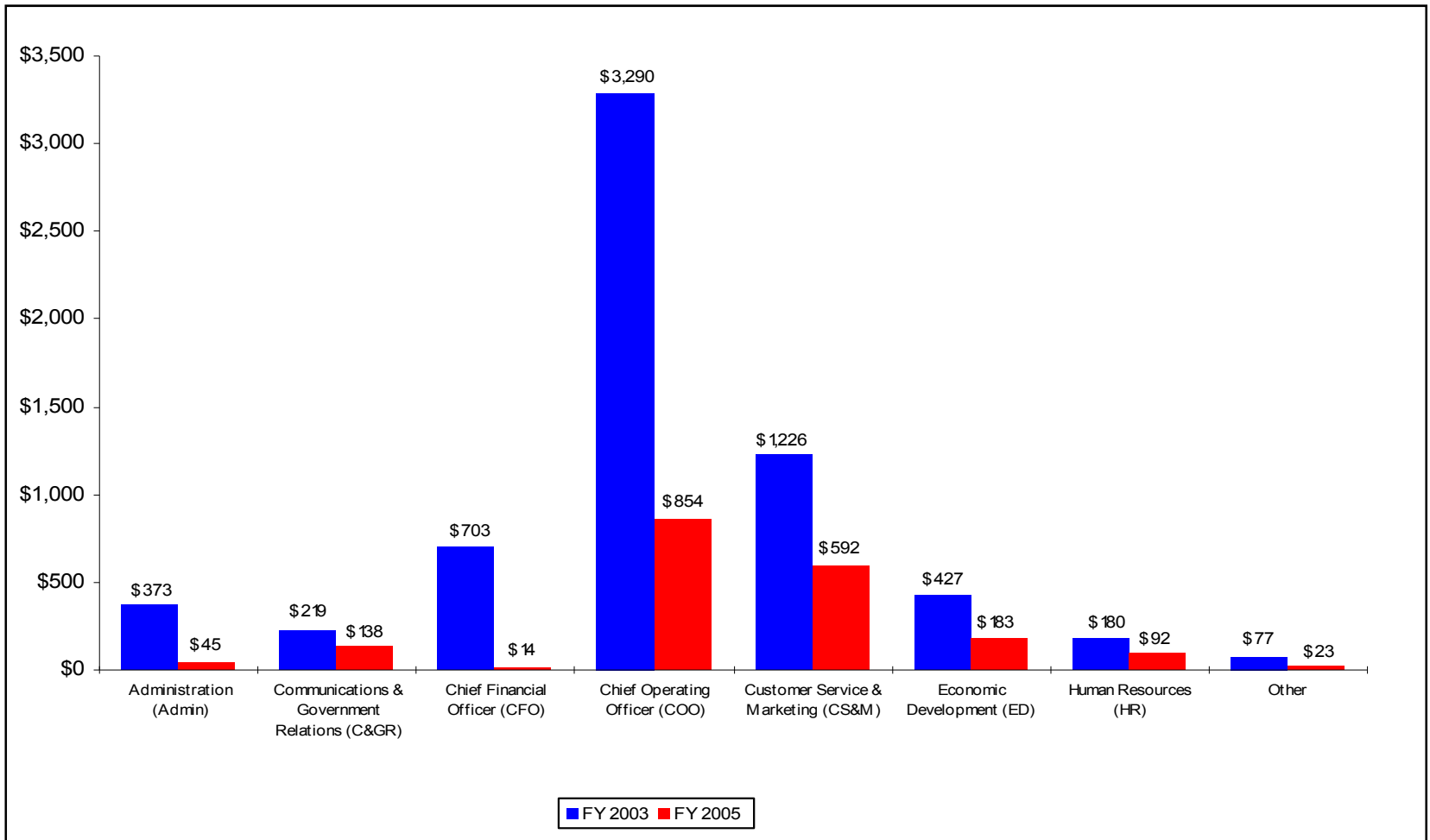
- ▶ Restaurant, catering, and other food charges totaling \$537,253.
- ▶ Charges to hotels totaling \$218,172.
- ▶ Event tickets, such as admission to sporting events, totaling \$91,596.

# Types and Level of Expenditures

- ▶ For FY 2003, we identified \$6,495,300 in hospitality expenses.
- ▶ TVA hospitality expenses for FY 2005 totaled \$1,940,970, a decrease of \$4,554,330 (70 percent).



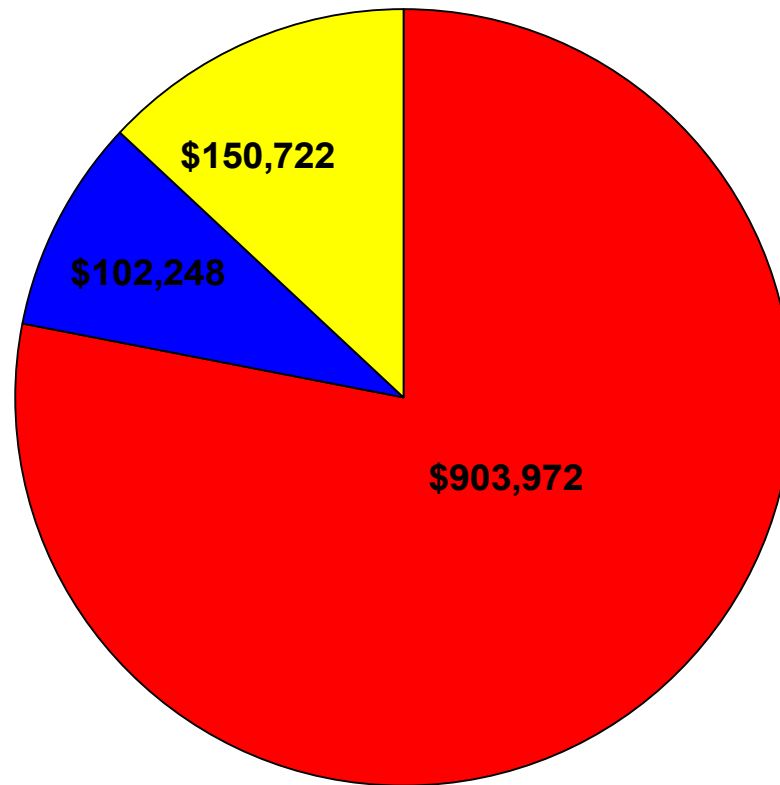
# FY 2005 Hospitality Expenses Compared to Prior Review (by Organization – in thousands)



# TVA Hospitality Expenses Reviewed

(by Purchase Method)

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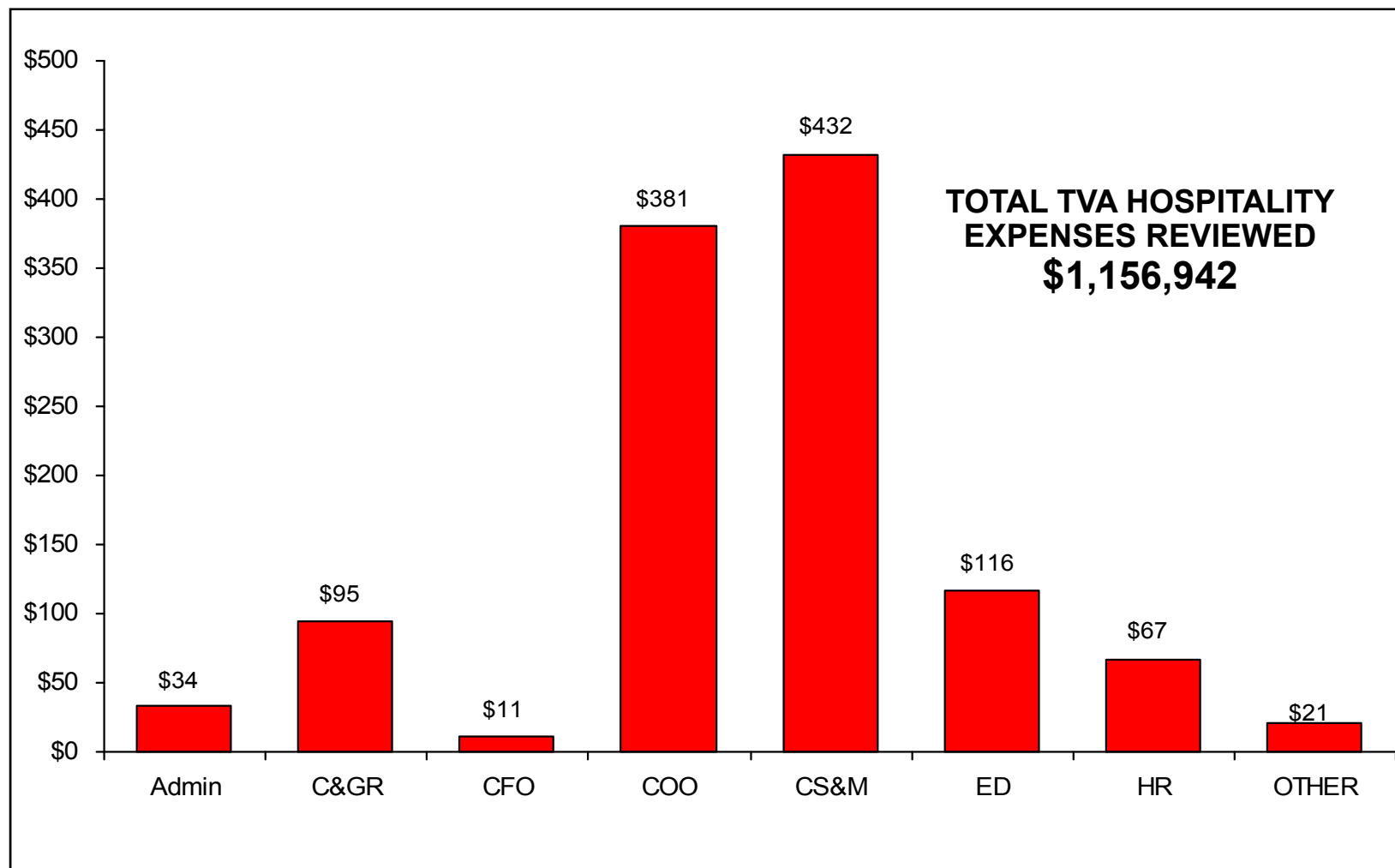


**TOTAL TVA HOSPITALITY  
EXPENSES REVIEWED  
\$1,156,942**

<span style="color: red;">■</span> Purchasing Card, Gold Card & Convenience Checks
<span style="color: blue;">■</span> Employee Reimbursement
<span style="color: yellow;">■</span> Miscellaneous Voucher

# TVA Hospitality Expenses Reviewed

(by Organization – in thousands)



# TVA Hospitality Expenses Reviewed

(Organizationally, by purchase method)

Organization	Purchasing/Gold/ Convenience	ERS*	Misc. Vouchers	Organization Total
Admin	\$ 13,429	\$ 4,537	\$ 15,605	\$ 33,571
C&GR	78,794	1,276	14,646	94,716
CFO	11,164	357	0	11,521
COO	294,001	52,133	34,941	381,075
CS&M	335,658	21,053	75,060	431,771
ED	91,478	18,992	5,454	115,924
HR	59,740	2,248	4,941	66,929
OTHER	19,708	1,652	75	21,435
<b>Total</b>	<b>\$903,972</b>	<b>\$102,248</b>	<b>\$150,722</b>	<b>\$1,156,942</b>

\*ERS – Employee Reimbursement System

# TVA Hospitality Expenses Reviewed

## (Organizationally, by expense type)

	Florists	Golf	Hotels <sup>1</sup>	Food/ Restaurants	Retail Stores	Tickets	Other	Total
<b>ADMIN</b>	\$ 770	\$ 297	\$ -344 <sup>2</sup>	\$ 15,681	\$ 555		\$ 16,612	\$ 33,571
<b>C&amp;GR</b>	502	3,599	11,310	53,775	120		25,410	94,716
<b>CFO</b>	639		1,952	8,544			386	11,521
<b>COO</b>	12,125	157	52,276	174,366	54,267		87,884	381,075
<b>CS&amp;M</b>	2,034	33,901	131,260	140,916	1,308	\$77,371	44,981	431,771
<b>ED</b>	1,084		12,743	73,812	1,434	14,225	12,626	115,924
<b>HR</b>	435		2,963	60,981	45		2,505	66,929
<b>OTHER</b>	675		6,012	9,178			5,570	21,435
<b>TOTAL</b>	<b>\$18,264</b>	<b>\$37,954</b>	<b>\$218,172</b>	<b>\$537,253</b>	<b>\$57,729</b>	<b>\$91,596</b>	<b>\$195,974</b>	<b>\$1,156,942</b>

<sup>1</sup>Amounts may include food and beverage costs.

<sup>2</sup>Net credit of expenses made prior to period reviewed.

# Significant Hospitality Examples

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- ▶ CS&M spent \$58,433 for the National Rural Electric Cooperative Association annual event held in spring of 2005. This amount included meals, lodging, and a San Diego Bay harbor excursion to show appreciation to distributors.
- ▶ CS&M spent \$39,696 on 6 season tickets to Memphis Grizzlies basketball games. These tickets were for entertaining distributors and customers in the Memphis area.
- ▶ HR spent \$41,594 in meals and refreshments for various New Employee Experience events held throughout the TVA region for new TVA employees.

## Finding 2 - Compliance with Policy

---

We found no instances of noncompliance with BP 7 with regard to the activities and type of expenditures allowed. However, we did find that confusion exists among some people as to what is covered by the policy.

- ▶ A TPS employee stated that a purchase at Wal-Mart was for employee recognition and therefore was not hospitality.
- ▶ An ED employee purchased a plant for use as decoration in a TVA exhibit. The employee stated that the plant was not considered hospitality, although BP 7 specifically states that decorations for TVA-sponsored events are hospitality.

## Finding 3 – Hospitality Training

---

In 2004, TVA's Controller developed a hospitality training module designed to provide more information and training on how to purchase hospitality. This training module is to be completed by (1) all employees who plan or approve hospitality, (2) all Visa Gold and Visa Purchasing card holders and convenience check account holders, and (3) all individuals who verify credit card or convenience check statements.

- ▶ We identified 290 unique purchasers in our database of hospitality transactions and found that 16 purchasers (5.5 percent) had not taken the training but still retained their cards.

# Finding 4 – Misclassified Expenses

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- ▶ We statistically selected 58 credit card transactions not charged to cost classification 25W to determine whether they were classified in accordance with AP 9. We found 22 of the 58 transactions (37.93 percent) were actually hospitality.
  - ▶ We estimate that of our universe of 1,745 non-25W transactions, 661 should have been classified as hospitality.
- ▶ Although TVA's hospitality policy defines the activities to be considered hospitality, we believe some employees do not understand that materials purchased in support of those particular activities should be classified hospitality as well.
  - ▶ A CS&M employee stated that aluminum pans and utensils purchased for a Retiree Christmas luncheon were classified correctly as 26A (Materials & Supplies) due to the nature of the purchase.
  - ▶ C&GR purchases of helium for balloons at Riverbend were classified as 26A.

## Finding 5 – Policy Clarification

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We compared BP 7 with TVA's hospitality training module. We found that BP 7 does not address purchases of hospitality with a purchasing card, while TVA's hospitality training and Purchasing Card procedure do address the use of the purchasing card.

- ▶ TPS' Business Services has issued a memo stating that safety meals could be purchased with a purchasing card based on the content of the hospitality training module.
- ▶ Some of the statistically sampled transactions that should have been classified as 25W were made with a purchasing card and charged to the purchasing card default cost classification (26A – Materials and Supplies).

## Finding 5 – Policy Clarification (cont'd)

---

TVA's hospitality training module states that "Pre-approval is required for hospitality events where expenditures are greater than \$500 using TVA's Hospitality Pre-Approval form." However, while BP 7 states that individuals are to obtain pre-approval at certain management levels, depending on the amount, the policy does not specifically address the use of the form.

We obtained forms, where available, from various TVA organizations and found:

- ▶ One organization stated they had failed to use the form consistently but would do so in the future.
- ▶ One organization provided forms as requested; however, their Senior Vice President had signed and dated two of the forms several months after the event occurred.
- ▶ While the form provides space to assess the potential benefits and risks of the event to TVA's reputation, assessment of benefits and risks is not required. All pre-approval forms reviewed included the benefits of the events but did not contain assessment of the risks.

# Recommendations

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We recommend the TVA Controller:

- ▶ Require any individual who may purchase hospitality to complete the hospitality training, not just those with purchasing or gold cards, or convenience check accounts.
- ▶ Ensure that hospitality expenses are accurately classified in accordance with AP 9.
- ▶ Revise BP 7 to include (1) use of form TVA 17901, Pre-approval of TVA Hospitality Expenditure, for all hospitality events or expenditures in excess of \$500; (2) further clarification on what is considered hospitality (i.e., supplies purchased specifically for a hospitality event); and (3) use of a purchasing card to purchase hospitality.
- ▶ Revise form TVA 17901 to require inclusion of risk to TVA's reputation of the hospitality being requested.

# Management's Comments and Our Evaluation

---

TVA's Controller responded to our recommendations as follows:

- ▶ The Controller agreed to address our recommendation related to ensuring accurate classification of hospitality expenses by (1) further clarifying what is considered hospitality in BP 7 and the on-line hospitality training module, (2) periodically reviewing expenditures through testing of internal controls in related business processes, and (3) monitoring trends in hospitality expense through the monthly reporting process.
- ▶ The Controller agreed with our recommendation to revise BP 7 and will include specific references to TVA Form 17901 and the use of the purchasing card for hospitality spending. The Controller will also further clarify what types of expenditures are considered hospitality.
- ▶ The Controller agreed to revise TVA Form 17901 to make the reputation risk a separate field on the form and require a response.

# Management's Comments and Our Evaluation (cont'd)

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- ▶ The Controller disagreed with our recommendation requiring hospitality training for any individual who purchases hospitality. However, the Controller committed to increased scrutiny of miscellaneous voucher requests for hospitality. This increased scrutiny, along with the periodic review of expenditures during testing of internal controls, alleviates our concerns over hospitality purchases by noncardholders.

TVA Office of the Inspector General Audit Report 2006-002c

Request for Management Decision - Review of TVA'S Contracting  
Process

21-August-2006

**SENSITIVE INFORMATION**



**Memorandum from the Office of the Inspector General**

August 21, 2006

Paul R. LaPointe, WT 3A-K

**REQUEST FOR MANAGEMENT DECISION – AUDIT 2006-002C – REVIEW OF TVA'S CONTRACTING PROCESS**

Attached is the final report on our review of TVA's Contracting Process. Your written comments, dated August 16, 2006, are included in the report. In summary, our review found several areas where improvements in the contracting process could result in better contract management and greater contractor compliance with commercial terms and conditions. Although we found many instances of good practices being performed by various individuals in Procurement and TVA's Strategic Business Units, these practices were not universal. Additionally, we surveyed Procurement's contract managers and purchasing agents and a representative sample of TVA's technical contract managers to ask for their input regarding weaknesses and areas of improvement in the contracting process. The survey results were most negative in areas concerning (1) training, (2) workload, and (3) communications.

In your response to our June 6, 2006, draft presentation of the report (see Appendix C), you stated several initiatives were under way to address most of the issues identified in our report. We agree with the actions identified in your response to improve the contracting process; however, we disagree with your statements regarding the use of two-way versus three-way match for the payment of invoices for services contracts. You stated: (1) "The decision on whether to use the two way versus the three way match is based on what is most appropriate for that contract." (2) "This policy is as stated in the Sarbanes-Oxley Readiness Narrative Documentation for the Manage Contracting process." We disagree with these statements because the Manage Contracting process only discusses "receiving" versus "non-receiving" contracts. The Manage Contracting process does not document how decisions are made on the use of two-way versus three-way match for services contracts.

Although we agree with your planned action to clarify the narrative document regarding how invoice support documentation is to be maintained, we also recommend Procurement's policies and the Manage Contracting process be revised to clarify what type of services are acceptable to be paid under a three-way match.

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The information contained within this document is the property of the Tennessee Valley Authority and has been determined to be sensitive. Its contents are not to be further distributed without prior approval of the Inspector General or his designee.

**SENSITIVE INFORMATION**

**SENSITIVE INFORMATION**

Paul R. LaPointe  
Page 2  
August 21, 2006

This report is for your review and consideration. Please advise us of your management decision within 60 days from the date of this report. Information contained in this report may be subject to public disclosure. Please advise us of any sensitive information in this report that you recommend be withheld. If you have any questions, please call John H. Barrow, Project Manager, at (865) 632-2261 or David P. Wheeler, Manager, Contract Audits, at (865) 632-4770. We appreciate the courtesy and cooperation received from your staff during the audit.



Ben R. Wagner  
Assistant Inspector General  
(Audits and Inspections)  
ET 3C-K

JHB:JP  
Attachment

cc (Attachment):

Peyton T. Hairston, Jr., WT 7C-K  
Tom D. Kilgore, WT 7B-K  
Carla F. Lewis, WT 3A-K  
John E. Long, Jr., WT 7B-K  
Richard W. Moore, ET 4C-K  
OIG File No. 2006-002C

**SENSITIVE INFORMATION**



# **Review of TVA's Contracting Process**

**Audit 2006-002C**  
**August 21, 2006**

## **Project Leaders**

**John H. Barrow**  
**Chad B. Bube**

## **Team Members**

<b>Joel B. Corbin</b>	<b>Karen K. McGrew</b>
<b>Julie A. Lovingood</b>	<b>Jerry D. Stover</b>
<b>Jonathan L. Martin</b>	<b>E. David Willis</b>



***SENSITIVE INFORMATION***

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  - A. CM/PA Survey Results
  - B. TCM Survey Results
  - C. Memorandum dated August 16, 2006, from Paul R. LaPointe to Ben R. Wagner

# Background

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- ▶ The Procurement organization is responsible for Tennessee Valley Authority's (TVA) supply chain process and oversight of TVA's supply chain efforts, as explained in Business Practice 9 (BP9). These responsibilities are carried out by Procurement's contract managers and purchasing agents (CMs/PAs).
- ▶ Procurement's responsibilities are shared with TVA's Strategic Business Units (SBUs). SBU technical contract managers (TCMs) are responsible for technical contract administration and following supply chain policies and guidelines issued by Procurement.
- ▶ In accordance with its BP9 responsibilities, Procurement issued (1) BP9 "Implementing Procedures" in February 1998 describing CM/PA roles and (2) the "Technical Contract Manager User Guide" in July 2002 describing TCM roles. Key elements of these roles are shown in the following table.

## Background (cont'd)

Roles in the Contracting Process	
Commercial Contract Managers	TCMs
Develop overall supply chain policies, strategies, and implementation guidelines.	Provide technical direction and oversight of the contractor's work.
Manage TVA's supply chain, related information systems, and corporate contract reporting.	Execute work authorizations and task orders under the contracts.
Develop, execute, and direct the commercial relationship in all contracts and changes thereto.	Initiate requests to Procurement CMs/PAs to amend the contract for changes in T&Cs or scope.
Establish compensation terms and conditions (T&Cs) with suppliers for items and services provided under the contracts.	Review and approve invoices for payment.

## Background (cont'd)

- ▶ CMs/PAs and TCMs were responsible for over \$2.4 billion spent under 9,107 contracts and purchase orders (hereafter referred to as contracts) in fiscal year (FY) 2005.
- ▶ Over 85 percent of that amount, or about \$2 billion, was spent under the largest 200 contracts that had spend ranging from about \$1 million to \$256 million.

The approximate breakdown between nonservices and services is as follows:

<u>Type of Contract</u>	<u>Number</u>	<u>\$ Billion</u>
Nonservices (materials, parts, components)	6,960	\$0.8
Services (primarily labor and some materials)	<u>2,147</u>	<u>1.6</u>
Total FY 2005	9,107	\$2.4

## Background (cont'd)

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- ▶ Recent Office of the Inspector General (OIG) compliance audits have found weaknesses in the contracting process. Examples of these weaknesses include:
  - ▶ A TCM for a hydro contract used the contract to circumvent TVA's process for hiring and reporting a personal services contractor.
  - ▶ A TCM for a welding contractor did not detect overbillings caused by (1) incorrect labor rates, misclassifications of personnel, and unsupported labor hours; (2) ineligible or unsupported travel and per diem costs; (3) equipment costs billed at the wrong rate; and (4) duplicated costs.
  - ▶ 23 percent of payments authorized by TCMs for a chemical contract did not have adequate controls in place to ensure products or services had been received.
  - ▶ TCMs for a welding contractor did not detect per diem costs paid to the subcontract employees that exceeded the limitation set in the contract.
  - ▶ CM for a mechanical contract failed to include specific pricing terms in the contract.

## Background (cont'd)

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- ▶ A contract's compensation clauses were not adequate for determining and evaluating prices for manufactured products.
- ▶ A contract (1) had not been signed by officials of the contractor, (2) did not include a detailed scope of work, (3) was not amended when contractual amounts and performance periods were changed, and (4) did not include pricing provisions for fixed price work.

Based on the results of recent audits, the OIG scheduled a review of TVA's contracting process to determine the root causes and potential remedies for weaknesses identified in the audits. Procurement management agreed a review of their contracting process would help them identify opportunities for improvement and provided input and support throughout our review.

## Objective/Scope

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Our objective was to determine if TVA's contracting process can be improved to result in better contract management and greater contractor compliance with commercial T&Cs.

Our scope included contract initiation and administration for \$2.4 billion spent during FY 2005 under contracts managed by Procurement. Our scope did not include payments for activities not covered by BP9, such as payments for fossil fuel, power, land, loans, cooperative agreements, and miscellaneous payments.

# Methodology

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To achieve our objective, we:

- ▶ Sent surveys to all CMs/PAs (150 total) who were assigned to active FY 2005 contracts and a random sample of 663 TCMs to ask for their input regarding weaknesses and areas of improvement in the contracting process. We received responses from 66 CMs/PAs and 179 TCMs, making the survey response rates 44 percent and 27 percent, respectively.
- ▶ Randomly and judgmentally selected 34 of the 200 contracts with the greatest FY 2005 spend and 30 of the remaining 8,907 contracts. We used these 64 contracts to:
  - ▶ Conduct a review of the contract files to determine if (1) T&Cs included in the contract appeared to be reasonable and (2) appropriate documentation of negotiations and contract correspondence was included in the file.
  - ▶ Judgmentally select two invoices for each contract to review billings for compliance with the contract.

## Methodology (cont'd)

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- ▶ Select CMs/PAs and TCMs to interview about concerns, weaknesses, and potential improvements to the contracting process. This involved 43 CMs/PAs and 45 TCMs.
- ▶ Interviewed Procurement department managers to obtain their views on procedures, practices, and monitoring efforts regarding the contracting process.
- ▶ Interviewed representatives from TVA's Office of the General Counsel (OGC) to obtain their views on the contracting process and to identify weaknesses and areas for improvement.

This audit was performed in accordance with generally accepted government auditing standards.

# Findings

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In summary, we found several areas where improvements in TVA's contracting process could result in better contract management and greater contractor compliance with commercial T&Cs. Although we found many instances of good practices being performed by various individuals in Procurement and the SBUs, these practices were not universal. Overall, we found:

1. Deficiencies in 40 percent of the 64 contracts reviewed;
2. TCMs were approving payments without adequately reviewing pricing in 25 percent of the 64 invoice processes reviewed; and
3. Internal controls were not always followed.

Additionally, the survey results were most negative in areas concerning (1) training, (2) workload, and (3) communication.

# Finding 1 – Contract Deficiencies

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40 percent of the contracts we reviewed was deficient in one or more areas.

- ▶ **23 of 64 contracts we reviewed (35 percent) were not complete, including:**
  - ▶ Software license agreement used as a contract;
  - ▶ Supplements lacked bilateral signatures;
  - ▶ Revisions not signed by CM/PA; and
  - ▶ Contract page numbering missing.
- ▶ **12 contracts, including 9 of the above 23, had unclear pricing, including:**
  - ▶ Price list not included in contract;
  - ▶ No description of how to determine prices for items not on the price list;
  - ▶ No criteria for making price changes; and
  - ▶ Price changes not documented.

## **Finding 1 – Contract Deficiencies (cont'd)**

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In addition to the specific deficiencies found in our review, OGC representatives expressed concerns that:

- (1) Contracts had not always included updated T&Cs;
- (2) T&Cs were sometimes inserted into technical specifications that conflicted with the contract's commercial T&Cs; and
- (3) Technical specifications were sometimes vague and subject to multiple interpretations.

# Potential Causes

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Our review identified potential reasons why contracts were deficient.

▶ **CMs/PAs need more training.**

- ▶ 6 of 8 Procurement department managers we interviewed and 1 manager from the OGC's office expressed concerns about the qualifications of some CMs/PAs.
- ▶ 29 of the 43 CMs/PAs (67 percent) we interviewed expressed a need for more training.
- ▶ Procurement's benchmarking efforts indicated the annual training hours provided to CMs/PAs were half of the industry median and about a quarter of what is considered a "world class" level of training.
- ▶ In addition to training, 6 of the CMs/PAs interviewed expressed a need for consolidation of policies, procedures, and practices into a user guideline.

## Potential Causes (cont'd)

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- ▶ **CMs/PAs believed they are overworked to the point that they cannot perform effectively.**
  - ▶ 25 of the 43 CMs/PAs (58 percent) that we interviewed expressed concerns about excessive workload, and even though they were not asked the question, 7 of the TCMs that we interviewed voluntarily expressed empathy about overworked CMs/PAs.
  - ▶ Procurement's benchmarking efforts indicate the CM/PA function may be understaffed relative to other utilities.
  - ▶ 7 of the 43 CMs/PAs interviewed complained that the approval process for new procurements was cumbersome.
- ▶ **CMs/PAs believed that PassPort was not effective as a contract management tool.**
  - ▶ 18 of the 43 CMs/PAs (42 percent) that we interviewed made negative comments about PassPort, and 9 of those 18 indicated PassPort was not effective for service contracts. Three of the CMs/PAs noted PassPort may be effective for inventory control and payment processing but stated it does not facilitate contract management.

## Finding 2 – Inadequate Invoice Reviews

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Our review found many instances where TCMs were approving payment without adequately reviewing pricing.

- ▶ For 16 of the 64 (25 percent) invoice approval processes reviewed, we found TCMs were approving payment without properly reviewing pricing.
  - ▶ For 8 of the above 16, the TCM had not required adequate invoice detail to enable competent review.
  - ▶ We issued four management notification memorandums during this review; three of these directly resulted from not performing an adequate detailed review of invoice pricing. TVA subsequently recovered almost \$48,000 on two of these situations.
- ▶ For 8 of the contract files we reviewed, the contract pricing was not used by the CM/PA and/or TCM. These were generally blanket contracts, and some TCMs claimed they did not have access to and had never seen the contract T&Cs.

# Potential Causes

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We identified potential reasons why TCMs were approving payment without adequately reviewing invoices.

- ▶ 8 of the 45 TCMs interviewed did not believe they were responsible for detailed review of invoice pricing. Two of these informed us they believed the OIG was responsible for the detailed invoice review.
- ▶ The survey results and comments from four TCMs indicated TCMs believe they do not have an incentive to monitor compliance with commercial T&Cs. Instead, TCMs tend to focus primarily on completing projects as soon as possible.
- ▶ Procurement's administrative processes hold CMs/PAs responsible for monitoring TCM performance and referring questions to management as necessary. However, 48 percent of the CMs/PAs surveyed indicated they did not have adequate time for monitoring.

## **Finding 3 – Internal Controls Not Followed**

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We found situations where TCMs and CMs/PAs took actions that were inconsistent with their defined roles and prudent business practices, therefore not effectively following internal control features.

- ▶ CMs/PAs are responsible for awarding contracts and making contract changes. However, we were informed that TCMs, and sometimes senior plant management, bypass the CM/PA and (1) direct vendors to begin work without a contract in place and/or (2) make contract changes. The CMs/PAs were only involved after the fact to enable payment of invoices in PassPort.

## **Finding 3 – Internal Controls Not Followed (cont'd)**

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- ▶ Internal controls identified in TVA's "Manage Contracting Process" segregate the duty for ordering goods and services from payment authorizations. CMs/PAs order goods and services, and payments are made based on (1) TCM signature approval of invoices for services (two-way match) or (2) a system three-way match of the contract, invoice, and a receipt entered by storeroom material handlers for items received.
  - ▶ We found CMs/PAs were using the three-way match process for service contracts rather than the established two-way match process. The CMs/PAs were effectively authorizing payment by routinely entering or instructing material handlers to enter receipts into PassPort.
  - ▶ We also found some CMs/PAs were signing invoices to authorize payment in the two-way match process without having obtained signed documentation from the TCM of the TCM's review and approval. For example, the invoice approval process for the Facilities organization is based on CM/PA signature on the invoice to authorize payment.

## Finding 3 – Internal Controls Not Followed (cont'd)

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- ▶ Instead of determining the best contract pricing methodology to use based on individual contracting situations, some CMs/PAs and TCMs expressed a preference for using lump-sum fixed price contracts in all situations.
  - ▶ Although this was often explained as a time-saving decision, it may not always provide the best pricing methodology. For example, instead of using the T&Cs specified in a contract, a TCM awarded a \$10 million noncompeted, fixed-price task to a contractor.

(Note - We issued a Management Notification on March 14, 2006, to address this issue.)

# Potential Causes

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Our review identified potential reasons why CMs/PAs and TCMs were not following internal control features.

- ▶ Integration of work management software (EMPAC) to the supply chain management software (PassPort) does not always facilitate the Procurement process.
  - ▶ A purchase requisition must be approved by SBU management within EMPAC before it integrates into PassPort as an approved material request. Approval by SBU management is typically a budget allocation decision, so the TCM is expected to have an accurate cost estimate on the purchase request before submitting it for approval. Some TCMs will contact suppliers during this phase and obtain price quotes or solicit bids without working through the CM/PA, which is not consistent with the defined TCM role.
- ▶ There were indications throughout this review that the contracting environment is sometimes rushed, which may have contributed to use of the three-way match process to speed up payment for services.
  - ▶ CMs/PAs expressed concerns about excessive workloads on the survey and during our interviews.
  - ▶ Survey results also indicated communications from TCMs to CMs/PAs were not timely or accurate.

# Survey Results

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The survey results were most negative in questions pertaining to (1) training, (2) workload, and (3) communication.

- ▶ 22 percent of the CMs/PAs did not agree they received adequate training (14 percent responded neutral).
- ▶ Almost half of the CMs/PAs did not agree that their workload was appropriate, and 48 percent did not agree that there was sufficient time for them to monitor contractor compliance (17 percent responded neutral).
- ▶ On average, 30 percent of the CMs/PAs did not agree that TCM communications were timely or accurate (23 percent responded neutral).

Complete survey results can be found in Appendices A and B for the CM/PA and TCM survey, respectively.

# TVA's Contracting Best Practices

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We found instances of good contracting practices that, if replicated throughout the contracting process, could improve the process. For example:

- ▶ Some TCMs coordinated with Procurement early and throughout the contracting process in a teamwork approach.
- ▶ Some TCMs combined their technical oversight with detailed review of invoice pricing and close monitoring of cumulative spend.
- ▶ Use of an invoice format that facilitated review for contract compliance was noted in a few instances.
- ▶ On a few contracts, standard processes were in place for work authorization, invoice review, and invoice approval for payment.
- ▶ Competition strategy had been employed under three blanket contracts to ensure best value for TVA.
- ▶ Experienced CMs were providing mentoring to less experienced associates.

## Recent Actions Taken by Procurement

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- ▶ Procurement management recognized training has not been adequate and is currently in the process of developing a three-year training program.
- ▶ Procurement management initiated a contract file review process in FY 2005 to improve the quality of contract files. This process is based on a standard checklist and includes self-assessments by CMs/PAs for all of their contracts over \$25,000; periodic file reviews by the CM/PA department manager; and a quality assurance review of sampled contract files by a Contract Assessment Team.
- ▶ Procurement issues a TCM newsletter quarterly to remind and inform TCMs of their duties.
- ▶ Procurement provides an annual online training course for TCMs.
- ▶ Procurement management recently directed CMs/PAs to review contract pricing for all contracts with annual spend exceeding \$100,000.

# Recommendations for Additional Improvements

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We recommend TVA Procurement:

- ▶ Provide additional training for CMs/PAs and TCMs, including specific training on contract pricing methodologies (cost reimbursable, time and materials, fixed price, etc.) and the use of appropriate commercial T&Cs.
- ▶ Enhance the contract file review process to include a more detailed analysis of contract pricing and the CM/PA understanding of contract pricing.
- ▶ Consolidate various sources of policies and guidance into a user guideline for CMs/PAs.
- ▶ Review the approval and management notification process for new contract awards to determine what areas, if any, can be streamlined.
- ▶ Determine if enhancements to PassPort could be made that would include modules for contract management and project management to facilitate the CM/PA and TCM functions.

# Recommendations for Additional Improvements (cont'd)

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- ▶ Consider concerns expressed by employees regarding workload to determine the adequacy of Procurement's staffing levels.
- ▶ Work with TVA management to provide improved online access to contracts, including commercial T&Cs, without compromising a contractor's sensitive information.
- ▶ Revise BP9 to clarify (1) TCM responsibility for reviewing and approving invoices and (2) CM/PA responsibility for monitoring the invoice approval process. Procurement should work with TVA management to develop a methodology for ensuring TCMs properly perform their invoice review responsibilities.
- ▶ Work with TVA management to develop and implement standard processes for review of invoice pricing. The standard process should include requirements that the contractor's invoices contain adequate detail in a format that facilitates the review.

# Recommendations for Additional Improvements (cont'd)

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- ▶ Terminate the current practice of using the three-way match payment process for service contracts and tasks that involve services.
- ▶ Require CMs/PAs who sign invoices for approval in the two-way match process to obtain signed documentation of the TCM review and approval.

## CM/PA Survey Results

We surveyed all CMs/PAs who had active contracts during FY 2005 (150 total) and received responses from 66 CMs/PAs. The below responses exclude all N/A answers or questions that were left blank.

	Question	A	N	D
1.	My duties and responsibilities as a CM/PA in conducting new procurements are clearly defined.	90%	5%	5%
2.	My duties and responsibilities in monitoring contract compliance are clearly defined.	85%	9%	6%
3.	I feel my workload is appropriate for me to effectively manage each contract.	47%	9%	44%
4.	PassPort is an effective tool that meets my business needs.	67%	16%	17%
5.	Procurement provides adequate training for me to perform my job as a CM/PA.	64%	14%	22%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

*Office of the Inspector General*  
*Audit 2006-002C*

**SENSITIVE INFORMATION**

## CM/PA Survey Results

	Question	A	N	D
6.	The standard compensation terms in the T&C generator are clearly written and effective.	68%	21%	11%
7.	Business risks are adequately considered when forming, implementing, and managing the contract.	89%	9%	2%
8.	Fraud risks are adequately considered when forming, implementing, and managing the contract.	87%	8%	5%
9.	The selection of vendors for proposal solicitation results in fair competition.	98%	2%	-
10.	TCMs completely and accurately communicate their needs and work scope enabling me to create and implement an effective contract.	50%	15%	35%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

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Audit 2006-002C*

**SENSITIVE INFORMATION**

## CM/PA Survey Results

	Question	A	N	D
11.	TCMs provide timely information to facilitate the procurement process.	34%	34%	32%
12.	Price negotiations and subsequent price modifications are adequately documented in the contract file to enable understanding of how the contract price or pricing terms were reached.	88%	6%	6%
13.	As business conditions change, the TCMs provide complete and accurate information to enable me to supplement the contract appropriately.	60%	19%	21%
14.	The frequency of meetings involving myself, the TCM, and the contractor is timely for effective contract management.	71%	10%	19%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

## CM/PA Survey Results

	Question	A	N	D
15.	I have adequate time to monitor contractor compliance.	35%	17%	48%
16.	Management of the requisitioning organization is supportive of the efforts made to ensure contract compliance with commercial T&Cs.	67%	13%	20%
17.	Incentives are in place in my organization to motivate me to effectively monitor the contractor's performance.	56%	25%	19%
18.	My coworkers can step in and provide adequate backup coverage for my job when I am away.	69%	17%	14%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

*Office of the Inspector General  
Audit 2006-002C*

***SENSITIVE INFORMATION***

## TCM Survey Results

We surveyed 663 TCMs and received responses from 179 TCMs who were active during FY 2005. The below responses exclude all N/A answers or questions that were left blank.

	Question	A	N	D
1.	My duties and responsibilities as a TCM or delegate are clearly defined.	89%	9%	2%
2.	The CM/PA views me as a team member in the contracting process.	92%	7%	1%
3.	Procurement listens to my views on ways to improve TVA's contracting process.	65%	29%	6%
4.	Communication between all TVA parties involved in the contracting process is effective.	67%	21%	12%
5.	I provide the CM/PA adequate lead time to meet my organization's business needs.	91%	8%	1%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

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Audit 2006-002C*

**SENSITIVE INFORMATION**

## TCM Survey Results

	Question	A	N	D
6.	TVA's procurement process is sufficiently timely to meet my organization's business needs.	73%	14%	13%
7.	Procurement keeps me up to date with changes to the contract (commercial, scope, etc.).	79%	15%	6%
8.	My duties and responsibilities in the solicitation and contract award process are clearly defined.	87%	9%	4%
9.	During the solicitation and proposal process, I provide input that affects which supplier is selected.	84%	12%	4%
10.	I always provide written detailed scope of work to potential contractors with soliciting bids.	85%	11%	4%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

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*Audit 2006-002C*

**SENSITIVE INFORMATION**

## TCM Survey Results

	Question	A	N	D
11.	I am satisfied with the CM/PA response time when a change is needed in contract scope or price.	84%	12%	4%
12.	EMPAC is an effective tool that meets my business needs.	33%	38%	29%
13.	PassPort is an effective tool that meets my business needs.	23%	54%	23%
14.	My duties and responsibilities in monitoring the contract are clearly defined.	86%	8%	6%
15.	My duties and responsibilities in the invoice approval process are clearly defined.	84%	7%	9%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

*Office of the Inspector General*  
*Audit 2006-002C*

**SENSITIVE INFORMATION**

## TCM Survey Results

	Question	A	N	D
16.	Incentives are in place in my organization to motivate me to ensure the contractor meets all the commercial T&Cs in the contract.	36%	33%	31%
17.	I track how often billing errors are made.	47%	25%	28%
18.	My management is supportive of TCM efforts to ensure compliance with the commercial T&Cs of the contract.	86%	11%	3%
19.	I am alert to fraud risks during all phases of the contracting process, including forming, implementing, and monitoring.	90%	7%	3%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

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*Audit 2006-002C*

***SENSITIVE INFORMATION***

## TCM Survey Results

	Question	A	N	D
20.	The training provided to me is adequate and effective for monitoring compliance with the commercial T&Cs of the contract.	78%	12%	10%
21.	The commercial T&Cs included in contracts and purchase orders are clearly written and easy to understand.	58%	27%	15%

A = Strongly Agree and Agree

N = Neutral

D = Disagree and Strongly Disagree

*Office of the Inspector General*  
*Audit 2006-002C*

***SENSITIVE INFORMATION***

August 16, 2008

Ben R. Wagner, ET3C-K

**RESPONSE TO PRELIMINARY AUDIT FINDINGS (AUDIT NO. 2006-002C) - REVIEW  
OF TVA'S CONTRACTING PROCESS**

Reference: Preliminary Audit 2006-002C dated June 6, 2006 and June 6 meeting

Thank you for meeting with us on June 6 to discuss your preliminary findings on the subject audit. We appreciate your suggestions for improving the contract management process and the professional support provided by the audit team, especially project leaders, John Barrow and Chad Bube.

We have reviewed your findings and our comments are detailed below. As we discussed, the noted findings in the background section of your report (pages 6&7) were reported in previous audit findings and were being addressed prior to this audit.

As you are aware, we have reviewed the entire contract management process. This includes ongoing contract assessments, pricing reviews, a three year training plan and the TCM newsletter. Our objective is to identify areas of noncompliance and determine what additional clarifications, instructions, and tools are needed to address gaps. The three areas you identified are being addressed, including a clarification of CM/PA and TCM roles. We are also focusing on consolidation of information, training, process standardization, and streamlining of efforts. Another initiative that will provide additional control and assurance of the proper management of contracts is the TVA Contracts Initiative. This project addresses the centralized tracking, document management and processing of all contractual agreements across the agency. We are also sharing "lessons learned" with CM/PAs through monthly joint contract meetings and with TCMs through discussions and correspondence, such as the TCM newsletter.

Specifically in response to the three findings you identified 1) contract deficiencies, 2) inadequate invoice reviews and 3) internal controls not followed, several actions have already been addressed while others are underway and outlined below. This includes items identified in your Notification Memorandums mentioned on page 17 of the draft report.

**1. Contract Deficiencies**

Increased emphasis is being placed on technical specifications to ensure they are clear and match the commercial T&C's. CM/PA Instructions and TCM manuals are being revised to clearly emphasize this area and the topic will be reinforced when solicitations are developed, in monthly Joint Contract meetings, as well as the TCM newsletter and contract review sessions. Plans also include consolidating guidance information such as training guides, instructions and BP9 into one easily accessible online catalog/website.

As you know, contract file reviews continue to be conducted by each CM/PA, Department Manager and the Procurement Contract Assessment Team and include a

Ben Wagner  
Page 2  
August 16, 2006

review of pricing terms. We are confident these reviews are beneficial as evidenced by a 27% improvement in contract accuracy over our FY05 performance. Additionally, I am conducting unannounced reviews for our top 200 spend contracts. These reviews focus on commercial terms, pricing structure, supplier performance, TCM training and validation of invoice review.

The approval process you mentioned for new procurements on page 16 is being examined and progress has already begun in streamlining approvals. We are proactively pursuing increased delegations from the Board level down and are making additional changes to streamline the approval process.

In response to OGC's comment that "Contracts did not always contain updated T&C's", we are not aware of any recent actions but will continue to emphasize this requirement. Several years ago, we institutionalized the process of using the TC Generator in the development of new contracts to ensure that CMPAs use the most current T&C's. For long term contracts we exercise business judgment as to whether reopening the commercial terms is in TVA's best interest. In those cases where it is not, T&C's are updated when the contract is replaced. Some of the findings in this section (such as bilateral signatures) are a good practice, but not always practical or required to be legally binding. We do agree that on major contracts, these do represent best practices and will continue to emphasize these characteristics in our training.

Your findings that CMPAs need more training is consistent with our three year training program which has a goal of significantly increasing CMPA knowledge and skills. The training emphasis is particularly important considering 25% of Procurement's workforce is new (less than four years experience).

## 2. Inadequate Invoice Review

One of the major objectives of the contract management project is to address roles. Specifically, the project will emphasize that the TCM is responsible and required to review invoices, including review of pricing and compliance with other commercial T&C's. The CMPA's role to monitor the invoice review process will also be stressed. These expectations will be further emphasized and documented in training material and instructions. As you know, we recently issued guidelines for the engineering managed task contracts and are currently working to standardize invoices and the review process.

In addition we have conducted multiple training classes to reinforce the TCM's role in these contracts, including invoice review. We expect that these will be a model for other cost-type contracts.

## 3. Internal Controls Not Followed

Through clarification of guidelines and training, TCMs will be reminded that only the Contracting Officer has the authority to change contracts, and any attempt to direct a supplier to do otherwise is an unauthorized procurement action.

Ben Wagner  
Page 3  
August 16, 2006

In reference to your comment regarding fixed price vs. cost reimbursable contracting, Procurement already has CM/PA guidelines, including the Contractor Workforce Management policy, which outline the pros and cons of awarding a fixed price versus a cost reimbursable contract. We will also reinforce this in training.

In response to your comment regarding segregation of duties, Procurement policy agrees with segregation of duties for ordering goods and services from payment authorizations. However we do not require that service contracts only be paid through the two way matching process. The decision on whether to use the two way versus the three way match is based on what is most appropriate for that contract. This policy is as stated in the Sarbanes-Oxley Readiness Narrative Documentation for the Manage Contracting process. Procurement will, however, clarify the narrative document regarding how invoice support documentation is maintained.

Regarding concerns about CM/PA workload, we are continually looking for ways to improve processes, streamline activities, and increase overall efficiency. We are currently working on simplifying the contract approval process. Also, we recently initiated a "Stop Doing It" initiative to reduce/eliminate non-value added activities. Finally, we have reviewed past OIG audits from FY05-06 and summarized the findings in order to identify reoccurring issues that need more attention.

As we discussed in our June 6 meeting concerning the TCM function, it is very difficult to maintain control and specifically manage the guidelines and requirements with the line organizations since there is no single accountability for the TCM function. Although we will continue to enforce these guidelines, it would be helpful if the appropriate organization's VP is copied on future OIG audits where the TCM's role is involved in the findings.

Thank you again for your suggestions. We do appreciate your input on improving TVA's contracting process.



Paul R. LaPointe  
Senior Vice President  
Procurement  
WT 3A-K

csb:pr:gb

John Barrow, ET 4C-K  
William Bonham, WT 3A-K  
Chad Bube, ET 3C-K  
Carolyn Burkhardt, WT 3A-K

John Long, WT 7B-K  
Kenneth Tilley, WT 3A-K  
David Wheeler, ET

TVA Office of the Inspector General Audit Report 2007-11229

Final Report - New Executive Orientation

28-February-2008

TVA RESTRICTED INFORMATION



Memorandum from the Office of the Inspector General

February 28, 2008

John E. Long, Jr., WT 7B-K

FINAL REPORT – AUDIT 2007-11229 – NEW EXECUTIVE ORIENTATION

Attached is the subject final report for your review. This report does not include any recommendations and is to be used for informational purposes only. Accordingly, no response is necessary.

Information contained in this report may be subject to public disclosure. Please advise us of any sensitive information in this report which you recommend be withheld.

If you have any questions, please contact Andrea L. Williams, Auditor, at (865) 632-2612 or John H. Barrow, Director (Acting), Financial and Operational Audits, at (865) 632-2261. We appreciate the courtesy and cooperation received from your staff during the audit.

Robert E. Martin  
Assistant Inspector General  
(Audits and Inspections)  
ET 3C-K

ALW:SDB  
Attachment  
cc (Attachment):

Peyton T. Hairston, Jr., WT 7B-K  
Tom D. Kilgore, WT 7B-K  
Richard W. Moore, ET 4C-K  
Emily J. Reynolds, OCP 1L-NST  
Phillip L. Reynolds, LP 3A-C  
OIG File No. 2007-11229

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TVA RESTRICTED INFORMATION



# NEW EXECUTIVE ORIENTATION

**Audit 2007-11229**  
**February 28, 2008**

Project Lead  
Andrea Williams

***TVA RESTRICTED INFORMATION***



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# Background

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TVA currently provides orientation to most newly-hired employees through a centralized and standardized hiring and orientation process called the New Employee Experience (NEE).

- ▶ The Human Resources (HR) organization is responsible for developing and implementing the NEE.
- ▶ The 3½ day NEE program provides new hires with information about TVA, as well as benefits, principles and practices, and ethics.
- ▶ The NEE is the only TVA-wide formalized orientation available to incoming employees, including new executives.

# Background (cont'd)

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On March 21, 2005, the Office of the Inspector General issued a report on its review of TVA's orientation for new executives. In that review, we identified several areas for improvement including providing newly-hired executives:

- ▶ Prehiring disclosure information about TVA's culture and key employment requirements.
- ▶ Specific guidance related to issues of high sensitivity (i.e., use of credit cards, hospitality policy, etc.) including discussion of previous issues TVA executives have encountered.
- ▶ Periodic orientation sessions with the HR Service Managers assigned to their organization to answer any questions or concerns that may arise during the first few months.
- ▶ Peer executives that could provide information on an as-needed basis.

# Background (cont'd)

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Based on the results of that review, HR management agreed to provide incoming executives with:

- ▶ A fact sheet to address issues unique to TVA (e.g., public versus private, unionized environment, etc.).
- ▶ Guidance related to areas of high sensitivity (i.e., use of credit cards, hospitality, etc.)
- ▶ Periodic meetings with the HR Service Manager or HR Consultant for the first six months of employment.
- ▶ A peer executive, if needed, as determined by the HR Service Manager.

Additionally, HR management indicated that all new executives would be expected to attend the NEE and an orientation checklist would be used by HR to develop each executive's orientation itinerary.

## Background (cont'd)

Between June 1, 2005, and September 4, 2007, TVA hired 76 executive-level<sup>1</sup> employees, including 8 executives at the Vice President-level or above.

Organization	Number of New Executives
Chief Financial Officer	6
Chief Operating Officer	1
Communication & Government Relations	1
Corporate Operations & Fuels	4
Customer Resources	1
Fossil Power Group	13
Human Resources	1
Information Services	2
Nuclear Power Group	44
Office of General Counsel	1
Transmission Power Supply	2
<b>TOTAL</b>	<b>76</b>

<sup>1</sup> For the purposes of this review, an executive is anyone receiving executive compensation and benefits.

# Objective, Scope, and Methodology

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Our objective was to assess the effectiveness of TVA's orientation for new executives hired since our last review; specifically, those whose start date was between June 1, 2005, and September 4, 2007. To achieve our objectives, we:

- ▶ Obtained a listing from HR personnel of TVA employees receiving executive compensation whose start date was between June 1, 2005, and September 4, 2007.
- ▶ Obtained and reviewed documentation and information provided to newly hired TVA executives, including guidance related to highly sensitive issues and TVA culture.
- ▶ Judgmentally selected 7 executives at or above the Vice President-level and randomly selected 8 other executives to interview regarding their orientation.
- ▶ Obtained and reviewed NEE training records to determine if all new executives attended the NEE.

This audit was performed in accordance with generally accepted government auditing standards.

# Findings Summary

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We assessed the effectiveness of TVA's orientation for new executives hired since our last review and determined HR personnel:

- Developed a guide for executives to address issues unique to TVA.
- Provided guidance to newly-hired executives on areas of high sensitivity.
- Provided periodic guidance as needed in various areas.
- Provided orientation itineraries to 4 of the 15 new executives we interviewed.

In addition, we found 91 percent of newly hired executives attended the NEE, according to TVA training records, as opposed to 67 percent during our last review.

# Findings – Orientation Documentation

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In April 2006, HR published the “Executive Guide: Transitioning to the Tennessee Valley Authority.” This guide provides information on areas such as:

- General TVA information and history;
- TVA’s public image;
- Ethics rules;
- Corporate accountability;
- Labor relations;
- TVA bonds; and
- Environmental resources.

According to the Senior Manager, Shared Resources, HR, this guide is provided to newly hired officers (Vice President or higher) once they accept the position.

# Findings – Executive Interviews

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We interviewed 15 executives, including 7 executives at the Vice President level and above. Based on those interviews, we determined:

- Guidance on high-sensitivity issues, such as hospitality or use of credit cards, was provided. The information was provided formally in training (NEE or issue specific) or informally by asking co-workers.
  - Executives with a title of Vice President or higher were provided more guidance related to high-sensitivity issues than executives at the business unit level.
  - One executive stated that information was not provided on the financial disclosure form required to be completed by TVA officers prior to reporting for duty.
- Periodic guidance on various issues was provided through HR and/or other sources within their respective organizations.
- None of the executives interviewed was assigned a peer executive, although 3 did work with their predecessor for a period of time after arriving.

Orientation itineraries were provided by HR's Senior Manager, Shared Resources, for 4 of the 15 (27 percent) executives interviewed. These 4 executives indicated that they had completed the itineraries.

# Findings – NEE Training

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During our last review, 67 percent of newly hired executives attended the NEE. We found that, according to official training records, 69 of the 76 (91 percent) executives hired during the period reviewed attended the NEE.

- Eleven of the 15 executives interviewed attended the NEE according to TVA training records.
- Three of the 4 remaining executives interviewed indicated they had attended all or part of the NEE training, although NEE attendance was not reflected in their training records.

# Suggestions for Improvement

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The 15 executives interviewed offered the following suggestions for improving orientation for new executives:

- ▶ Conduct a formal follow-up meeting with the executive to make sure access to systems has been obtained, insurance cards have been provided, etc.
- ▶ Provide tours of TVA facilities for those executives not hired for those organizations.
- ▶ Provide a more detailed organizational chart and general information on the organization.
- ▶ Address TVA's legacy and original mission more in the NEE.
- ▶ Provide information about the hierarchy of policies/procedures.
- ▶ Provide business and financial plans.
- ▶ Provide an overview of the TVA Act and TVA's legal responsibilities.
- ▶ Provide more information on the direction of TVA.

TVA Office of the Inspector General Audit Report 99-033F

Verification of Summarized Federal Agencies' Centralized Trial-  
Balance System (FACTS) Data for Fiscal Year 1998

23-March-1999

## SENSITIVE INFORMATION

March 23, 1999

David N. Smith, ET 12A-K

### **AUDIT REPORT 99-033F - VERIFICATION OF SUMMARIZED FEDERAL AGENCIES' CENTRALIZED TRIAL-BALANCE SYSTEM (FACTS) DATA FOR FISCAL YEAR 1998**

We reviewed the FACTS data that TVA submitted to the Department of the Treasury (Treasury) to determine if it was consistent, in all material respects, with TVA's fiscal year (FY) 1998 audited financial statements submitted to the Office of Management and Budget (OMB). In our opinion, the FACTS data is consistent, in all material respects, with TVA's audited financial statements.

#### **Background**

The Government Management Reform Act of 1994 (GMRA) requires the Treasury, in coordination with the OMB, to annually prepare and submit to the President and the Congress an audited financial statement, Consolidated Financial Statements for the U.S. Government (CFS), for the preceding fiscal year. The CFS consist of Management's Discussion and Analysis, a Balance Sheet, a Statement of Net Cost, a Statement of Changes in Net Position, Notes to the Financial Statements, and Supplementary Information, which includes a stewardship section. The CFS are an attempt to provide the President, the Congress and the American people with reliable information about the financial position of the U.S. Government on an accrual basis, the net cost of its operations, and the financing sources used to fund these operations.

Treasury's Financial Management Service (FMS) collects financial information from federal agencies through FACTS and prepares the CFS. The General Accounting Office (GAO) has the responsibility of auditing the CFS. After its audit of the FY 1997 CFS, the GAO was unable to render an opinion. In order to make progress toward the goal of an unqualified opinion, Treasury, OMB, and GAO agreed that it is essential that all agencies verify the FACTS data to their financial statements. Subsequently, in September 1998, FMS requested TVA's Office of the Inspector General to assist in the preparation of the FY 1998 CFS by verifying the information submitted by TVA.

#### **Objective, Scope, and Methodology**

FMS outlined the FACTS verification process to be followed by each agency. The process included comparing:

1. The FACTS Balance Sheet to the agency's financial statements.
2. The NOTES report to the footnote disclosure in the agency's financial statements.
3. The FACTS Statement of Net Cost to the footnote regarding gross cost and earned revenue included in the agency's financial statements.

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**SENSITIVE INFORMATION**

David N. Smith  
Page 2  
March 23, 1999

4. The FACTS Statement of Changes in Net Position to the agency's financial statements.

Because TVA is not required to follow the federal reporting standards for preparation of its financial statements, the CFO was required to reformat TVA's financial information to be consistent with the reports prepared by other federal agencies.

At the request of FMS and to assist in the preparation for the audit of the FY 1998 CFS, we verified the consistency of the information TVA submitted to OMB and Treasury. We achieved our objective by comparing each of the reports generated from the CFO figures to TVA's audited financial statements and other financial information.

We did not audit TVA's financial statements, but relied on information included in TVA's FY 1998 annual report, which was audited by PricewaterhouseCoopers, LLP. In addition, we used supplemental information from TVA when needed.

This audit was performed in accordance with generally accepted government auditing standards.

**Finding**

In our opinion, the FACTS data TVA submitted to Treasury is consistent, in all material respects, with TVA's audited financial statements submitted to OMB.

No response to this report is necessary. If you have any questions, please call E. David Willis, Lead Auditor, at extension 6997, or Deborah Meyers Thornton, Manager, Financial/ADP Audits, at extension 6058. We appreciate the courtesy and cooperation received from your staff during this audit.

Ben R. Wagner  
Assistant Inspector General  
(Audits)  
ET 4C-K

EDW:JAR  
cc: Andrew W. Holmes, WT 4C-K  
William M. Oden, WT 4C-K  
D. LeAnne Stribley, WT 4C-K  
OIG File No. 99-033F

**SENSITIVE INFORMATION**

TVA Office of the Inspector General Audit Report 2006-039C

Review of FEMA Mission Assignments

26-January-2007

## **EXECUTIVE SUMMARY**

The Tennessee Valley Authority (TVA) provides engineering and technical assistance to the Federal Emergency Management Agency (FEMA) for major disasters and emergencies using TVA retirees who are working under a TVA subcontract with National Emergency Assistance, Inc. (NEA). In April 2006, the Department of Homeland Security requested all Offices of the Inspector General to perform a review of the 2005 Gulf Coast Hurricane Mission Assignments performed by their agencies to evaluate the adequacy of their agencies' procedures pertaining to the billings and reimbursements for FEMA Mission Assignments.

We recently completed an audit of TVA's contract with NEA and found a number of control deficiencies and about \$116,000 of questioned costs. A copy of our final audit report regarding that review is included as Appendix A to this report. Additionally, our review of TVA's process for billing FEMA found:

- TVA did not have adequate controls in place to ensure the accuracy of costs being paid to NEA and subsequently billed to FEMA.
- TVA is using a markup rate to recover its costs of administering the NEA subcontract. However, TVA could not provide documentation of FEMA's approval to use a markup rate to recover its costs.

TVA management agreed it had inadequate controls in place and stated they now require NEA to attach supporting documentation with all billings for Mission Assignments. TVA's Technical Contract Manager reviews each NEA billing for accuracy and attaches the supporting documentation to all billings to FEMA. TVA management also stated they consulted with the Acting Chief of Payment Services, FEMA Disaster Finance Division, who confirmed that the signed funding of each mission assignment budget proposal is FEMA's authorization for expenditures including TVA's use of a markup rate for recovering its direct costs. See Appendix B for TVA management's complete response.

Based on TVA's recent changes to its procedures, we determined TVA is generally in compliance with federal guidelines pertaining to billings and reimbursements of FEMA Mission Assignments. However, since federal guidelines require the billing of actual direct costs, we recommend FEMA provide written authorization for TVA's use of a specific markup rate to recover its costs of administering the subcontract with NEA.

**22 PAGES WITHHELD**

**EX 5**

TVA Office of the Inspector General Audit Report 2000-058F

Review of TVA's Decommissioning Fund

15-February-2001

## **EXECUTIVE SUMMARY**

Tennessee Valley Authority (TVA) established a nuclear decommissioning fund (NDF) in order to meet future nuclear plant decommissioning obligations. As of September 30, 1999, TVA's NDF account balance was about \$725 million.

We reviewed the NDF to determine if TVA had taken adequate steps to manage the risk of not having sufficient funds to decommission its nuclear facilities. Specifically, we determined if the: (1) investment policy provides adequate assurance to meet future decommissioning obligations; (2) contracting for Investment Managers complies with TVA's contracting policies; (3) oversight of the Investment Managers is sufficient to ensure proper handling of the fund; and (4) fund is appropriately accounted for in TVA's financial records.

We found: (1) TVA's investment policy provides adequate assurance to meet future decommissioning obligations; (2) contracting for Investment Managers complied with TVA's contracting policies; (3) oversight of the Investment Managers was sufficient to ensure proper handling of the fund; and (4) the fund was appropriately accounted for in TVA's financial records.

In addition, we found that even though the investment policy provided adequate assurance to meet future decommissioning needs, TVA should consider allocating more of the fund to passive investment vehicles versus selecting investment managers to actively manage the fund. The NDF had an average return of 21.71 percent per year. However, this return has lagged the returns TVA uses to benchmark the performance of the NDF investment managers. The average annual returns since inception of the fund for the S&P 500, Wilshire 5000, and Russell 1000 were 25.18 percent, 21.87 percent, and 23.82 percent, respectively. However, TVA's average return of 21.71 percent is significantly higher than the return, 8.23 percent, required to fully fund the nuclear decommissioning obligation. In addition, the net present value of lower fees associated with a conversion to a passive investment approach assuming the fund continued to be invested only in U.S. domestic large cap stocks ranged from a conservative \$20.2 million to \$49.9 million over the estimated life of the fund.

Recently the TVA active managers have outperformed their benchmarks for the one-and two-year periods ending October 31, 2000. The TVA Treasury group that oversees the NDF has instituted several changes to the administration of the NDF to better monitor fund manager performance.

— We recommend TVA's Chief Financial Officer formulate an investment strategy that increases the investment in passive investments.

**TVA Management's Response** -- The NDF has taken steps that allocate more of its assets to passive investments. However, a combination of active and passive management will provide TVA with the best long-term returns with the least amount of risk. Since September 1999, TVA has instituted more rigorous process and procedures to monitor and provide appropriate oversight for the fund and its various managers. The oversight policies and administrative changes made should result in zero tolerance of an investment manager that consistently lags its benchmark, see Appendix B.

**Auditor's Response** -- We concur with actions taken by management to better monitor investment manager performance and to allocate more assets to passive investments.

12 PAGES WITHHELD

EX 5

TVA Office of the Inspector General Report to the Program Manager,  
Tritium Program: Audit 2003-044F

Tritium Program U.S. Department of Energy and TVA's Interagency  
Agreement

29-January-2004



SENSITIVE INFORMATION

Office of the Inspector General

# *Audit Report*

To the Program Manager,  
Tritium Program

## **TRITIUM PROGRAM - U.S. DEPARTMENT OF ENERGY AND TVA'S INTERAGENCY AGREEMENT**

Senior Auditor  
John H. Barrow

Audit 2003-044F  
January 29, 2004

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Memorandum from the Office of the Inspector General

January 29, 2004

James S. Chardos, ADM1V-WBN

REQUEST FOR FINAL ACTION – AUDIT NO. 2003-044F – TRITIUM PROGRAM –  
U.S. DEPARTMENT OF ENERGY AND TENNESSEE VALLEY AUTHORITY'S  
INTERAGENCY AGREEMENT NO. DE-A102-00DP00315

Attached is the subject final report for your review and final action. Your written comments, which addressed your management decision and described actions, have been included in the report. Please notify us, within one year from the date of this memorandum, when final action is complete.

If you have any questions, please contact John H. Barrow, Project Manager, at (865) 632-2261 or me at (865) 632-6309. We appreciate the courtesy and cooperation received from your staff during the audit.

A handwritten signature in cursive script, reading "Ben R. Wagner".

Ben R. Wagner  
Assistant Inspector General  
(Audits)  
ET 3C-K

JHB:SDB  
Attachment  
cc: See page 2

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James S. Chardos  
Page 2  
January 29, 2004

cc (Attachment):

Mr. Keith Adkins  
U.S. Department of Energy  
Chicago Operations Office  
9800 S. Cass Avenue  
Argonne, Illinois 60439

Mr. Ross Hollibaugh  
Staff Accountant  
Office of Chief Financial Officer – Accounting  
U.S. Department of Energy  
Chicago Operations Office  
9800 S. Cass Avenue  
Argonne, Illinois 60439

Jim M. Casey, ET 11A-K  
Paul R. LaPointe, ET 5B-K  
James E. Maddox, LP 6A-C  
Richard W. Moore, ET 4C-K  
Ellen Robinson, ET 12A-K  
John A Scalice, LP 6A-C  
Dale R. Short, BR 3A-C  
Oswald J. Zeringue, ET 12A-K  
OIG File No. 2003-044F

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**APPENDICES**

- A. [ ex 5 ]
- B. [ ex 5 ]

**EXECUTIVE SUMMARY**

The United States Department of Energy (DOE) requested that the Tennessee Valley Authority (TVA) Office of the Inspector General perform an audit of billings to DOE under an interagency agreement related to production of tritium. TVA has billed DOE over \$57.5 million under this agreement since its inception on January 1, 2000, through March 31, 2003. The amounts billed included fixed payments, direct costs incurred by TVA for in-house costs and third party costs, plus overheads applied to the in-house costs.

In summary, we found:

- Fixed payments and the direct cost transactions (excluding overhead) reviewed were billed in compliance with the interagency agreement and adequately supported by TVA records.
- Direct costs of \$46,638 were inadvertently not billed.
- Overhead applied to in-house costs was understated by a net of \$392,331.
- Overhead of \$9,019,266 was effectively assigned to third party costs through TVA's overhead rate calculation method but not billed to DOE.

ex 5

**SENSITIVE INFORMATION**

Office of the Inspector General

Audit Report

[ ex5 ]

## **BACKGROUND**

The United States (U.S.) Department of Energy (DOE) established an interagency agreement<sup>1</sup> effective January 1, 2000, with the Tennessee Valley Authority (TVA) under the Economy Act<sup>2</sup> through November 30, 2035, for services related to production of tritium. Under this agreement, DOE will pay TVA's costs to irradiate tritium producing burnable absorber rods (TPBARs) in the nuclear reactors at Watts Bar Nuclear (WBN) and Sequoyah Nuclear (SQN) plants. DOE will fabricate the TPBARs and TVA will insert them into the reactors as control rods during routine refueling outages. After irradiation the TPBARs will be removed by TVA at the next refueling outage and returned to DOE for use in production of tritium. The tritium is needed by DOE as part of its defense mission to refresh and maintain the U.S. nuclear weapons stockpile.

The interagency agreement describes the following standard tritium program costs:

- Fixed payments – amounts agreed by both parties as reasonable estimates of the actual in-house costs to be incurred by TVA for specific work tasks.
- Reimbursable costs – actual in-house costs incurred by TVA that were not identified under fixed payments.
- Third party costs – third party (contractor) costs incurred by TVA for the program and billed to DOE with no additional burden or markup.

The agreement also provided for DOE to reimburse TVA for unanticipated costs that may be incurred for the tritium program.

Total billings by TVA to DOE for the tritium program from its inception through March 31, 2003, are shown in Figure 1.

<b>Total Billings Through March 31, 2003</b>	
Fixed payments	\$24,667,886
Reimbursable costs	7,365,199
Third party costs	25,516,751
<b>Total</b>	<b>\$57,549,836</b>

Figure 1

<sup>1</sup> Interagency Agreement No. DE-A102-00DP00315.

<sup>2</sup> Statute 31 U.S.C. § 1535 (1994).

All of the billings have been paid by DOE through an on-line payment and collection system. TVA's tritium program costs were recorded under various project accounts to segregate the types of costs. The Billout Sub-System (BOSS) accumulates the costs monthly from the Integrated Business System (IBS) general ledger to set up an account receivable for billing by TVA's Treasury organization. BOSS applies markups to the reimbursable costs for fringe benefits, TVA Nuclear (TVAN) overhead, and corporate overhead,<sup>3</sup> as shown in Figure 2.

Markups Applied to Reimbursable Costs		
	Fiscal Years 2000-2001	Fiscal Years 2002 -2003
Fringe benefits	<sup>4</sup>	
TVAN overhead	[ex5]	[ex5]
Corporate overhead	[ex5]	[ex5]

Figure 2

In a letter dated March 19, 2002, DOE requested TVA's Office of the Inspector General perform an audit to determine if amounts billed were in compliance with the agreement.

## **OBJECTIVE, SCOPE, AND METHODOLOGY**

Our objective was to determine if amounts billed by TVA to DOE were in compliance with the interagency agreement. Our scope included all costs billed by TVA for periods beginning with inception of the agreement, January 1, 2000, through March 31, 2003. To achieve our objective, we:

- Reviewed the interagency agreement.
- Obtained information from TVA's Treasury department about total billings to DOE.
- Reconciled total billings to cost and revenue information from BOSS and IBS.
- Reconciled total fixed payments billed to provisions in the agreement.

<sup>3</sup> Fringe benefits are applied to labor only. Overhead rates are applied uniformly to all costs.

<sup>4</sup> Fringe benefits were automatically added to all TVA direct labor prior to fiscal year 2002.

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*Office of the Inspector General*

*Audit Report*

- Reviewed a statistical sample of 20 transactions selected with the dollar unit sampling methodology out of a total universe of 3,688 direct cost reimbursable transactions totaling \$5,429,966 to determine compliance with the agreement. The sample transactions amounted to \$144,064, or about 3 percent of the reimbursable costs billed.
- Reviewed a statistical sample of 20 transactions selected with the dollar unit sampling methodology out of a total universe of 659 third party transactions totaling \$17,350,813 to determine compliance with the agreement. The sample transactions amounted to \$6,443,750, or about 37 percent of the third party costs billed.
- Examined all \$8,165,937 of the other third party costs billed for TVA's increased fuel expense and transfer of a special fuel program to determine compliance with the agreement.
- Determined if all of the sample transactions and other third party costs reviewed were properly approved and adequately supported by TVA records.
- Determined appropriate markup rates for indirect labor costs and fringe benefits, TVAN overhead, and TVA corporate overhead. We identified and removed unallowable<sup>5</sup> overhead costs before calculating the overhead rates.
- Calculated total indirect labor costs and fringe benefits, TVAN overhead, and TVA corporate overhead that should have been recovered and compared to amounts actually recovered for indirect costs.

Except as noted in this report, we did not test for compliance with laws and regulations. However, no areas of noncompliance came to our attention except as noted in this report. The audit was performed in accordance with generally accepted government auditing standards.

<sup>5</sup> Unallowable costs are described in the Federal Acquisition Regulations (FAR) at 31.205.

## **FINDINGS**

Fixed payments and direct costs (excluding overhead) billed to DOE were in compliance with the interagency agreement. However, we found TVA underbilled DOE a net amount of \$9,458,235 during the audit period. The underbilling was composed of (1) \$46,638 of direct costs inadvertently not billed by TVA, (2) a net of \$392,331 of overhead costs on in-house TVA costs, and (3) \$9,019,266 of overhead costs associated with third party costs. The overhead underbillings resulted from usage of incorrect overhead rates on in-house costs and nonapplication of overhead rates to third party costs of more than \$25.5 million.

Although the interagency agreement states that third party costs will be billed without markup, TVA's overhead rates were calculated for uniform application to all cost types, including third party costs. Therefore, if TVA does not apply its overhead to third party costs or adjust the overhead rate calculations to exclude third party costs, TVA is not recovering all of its costs. Under the Economy Act, DOE is required to reimburse TVA its actual costs, including overhead. In addition, section 3.b3 of the agreement states TVA will be reimbursed for all of its in-house costs. Under TVA's rate calculation methodology, the overhead associated with the third party costs would be considered a part of TVA's costs.

## **FIXED PAYMENTS AND DIRECT COSTS BILLED**

The audit found that all of the fixed payments and direct costs (excluding overhead) billed were in compliance with the interagency agreement. Specifically, we found:

- Total fixed payments billed for periods through March 31, 2003, complied with provisions in the agreement.
- All of the sample reimbursable transactions and third party transactions (excluding overhead) were in compliance with the agreement, properly approved, and adequately supported by TVA records.
- The other third party costs for TVA's increased fuel expense and transfer of a special fuel program (excluding overhead) were incurred and billed in compliance with the agreement, properly approved, and adequately supported by TVA records.

## **COSTS NOT BILLED**

Our reconciliation of costs billed to cost and revenue information from BOSS and IBS found \$46,638 of costs incurred that were not billed. This included \$39,526 of reimbursable costs and \$7,112 of third party costs. In April 2001 and March 2003, these costs were charged to tritium project accounts in IBS; however, BOSS processing to transfer project costs to accounts receivable had already taken place. Project accountants were not reconciling project costs to billings and were not aware that these costs were not billed. We found no written requirement that such reconciliations be performed.

## **REIMBURSABLE COSTS – OVERHEADS**

Total indirect costs added to reimbursable costs were understated by a net amount of \$392,331. This under-recovery primarily resulted from (1) understated labor burden rates applied to direct labor, (2) overstated labor burden rates applied to internal services labor, (3) overstated corporate overhead rates, and (4) understated TVAN organization overhead rates, as described below.

### **Labor Burden Rates Applied to Direct Labor**

TVAN did not apply any markup to straight-time direct labor to recover indirect labor costs. As a result, indirect costs billed to DOE were understated by an estimated \$34,969. The only rate applied to the direct labor was the fringe benefit rate which does not include indirect labor costs. Indirect labor costs include paid time off, administrative and training time, and estimated company-wide performance bonuses.

TVA's standard fringe benefit rates were calculated over a distribution base of total annual salary cost, which includes some indirect labor costs. We removed the indirect labor costs from the annual salary distribution base and calculated a burden rate that included fringe benefits and indirect labor distributed over a base of direct straight-time salary cost. As shown in Figure 3, the audited labor burden rates were significantly higher than the rate applied to direct labor charged on the tritium project.

Labor Burden Rates for Application to Direct Labor		
Year	Rate Applied	Audited Rate
FY 2000	[ex5]	[ex5]
FY 2001		
FY 2002		
FY 2003		

Figure 3

### Labor Burden Rates Applied to Internal Services Labor

TVAN applied a [ ] percent fringe benefits markup to total internal services labor charged to the project since October 1, 2001.<sup>6</sup>

TVA's [ ] percent fringe benefits rate was calculated for application to an employee's straight-time pay. The internal services labor charges were based on flat hourly rates that were already burdened with indirect labor costs in addition to regular pay. Further, the internal services labor charges also included some contractor labor. Therefore, application of the [ ] percent fringe benefit markup to total internal services labor resulted in overcharges because the rate was being applied to costs other than straight-time hourly pay of TVA employees.

[ ] =  
ex5

We analyzed the source of internal services costs to determine the proportion of straight-time pay and made appropriate adjustments to determine the fringe benefits that should have been added for internal services charges to the project. Based on our calculation, the labor burden rate for internal services labor should have been [ ] percent. As a result, TVA overcharged DOE by an estimated \$473,161.

### TVA Corporate Overhead Rates

TVAN applied a TVA corporate overhead rate of [ ] percent to reimbursable project costs from inception of the project through FY 2001, and a rate of [ ] percent thereafter. TVA's corporate overhead rate was calculated from budgeted costs with the total cost input method<sup>7</sup> over an allocation base that included total operating expense, fuel expense, and external business expense. We calculated appropriate TVA corporate overhead rates with the total cost input method, using actual costs for FYs 2000, 2001, and 2002, and budgeted amounts for FY 2003, and excluding unallowable costs, as shown in Figure 4.

<sup>6</sup> Prior to FY 2002, fringe benefits were automatically added to all TVA direct labor, including direct labor charged to external projects.

<sup>7</sup> The total cost input method is described in the Cost Accounting Standards Appendix to the FAR at subpart 9904.410-50.

Corporate Overhead Rates		
Year	Rate Applied	Audited Rate
FY 2000	[ex5]	[ex5]
FY 2001		
FY 2002		
FY 2003		

Figure 4

As a result, TVA overcharged DOE an estimated \$14,356 because the corporate overhead rates applied were slightly higher than the actual overhead.

#### TVAN Overhead Rates

TVAN applied an overhead rate of <sup>ex5</sup> percent to reimbursable project costs from inception of the project through March 2003. We were informed that this rate was determined sometime during the period 1995 through 1999. Current TVAN business services personnel have no records of how the rate was calculated and have not calculated an overhead rate for any of the periods covered in our audit. We calculated appropriate overhead rates for TVAN with the total cost input method, using actual costs for each period and excluding unallowable costs, as shown in Figure 5.

TVAN Overhead Rates		
Year	Rate Applied	Audited Rate
FY 2000	[ex5]	[ex5]
FY 2001		
FY 2002		
FY 2003		

Figure 5

The audited rates are significantly higher than the rate applied during the audit period. As a result, TVA undercharged DOE by \$844,879 because TVAN did not calculate and apply current overhead rates.

### THIRD PARTY COSTS – OVERHEADS

The interagency agreement stated third party costs would be invoiced with no markup. Accordingly, TVAN did not apply any overheads to \$25,523,863 of third party costs during the audit period. However, TVA's overhead rates were calculated with the total cost input method and intended for uniform application to all cost types, including third party contract costs. We estimated that \$9,019,266 of overhead cost was assigned to the third party costs through TVA's overhead rate calculation method but not recovered from DOE. The TVA personnel that negotiated the interagency agreement did not know that TVA's overhead calculation method included application of overhead to third party costs.

The Economy Act requires the requisitioning agency (DOE) to pay for the actual costs of the performing agency (TVA). A Comptroller General decision indicated that when a Government entity provides services to Government and non-Government users through a self-sustaining rate structure, the Government users should pay the same rates as non-Government users.<sup>8</sup> TVA's overhead rates were calculated to place an overhead burden on direct cost of external projects (such as the tritium project) that is equal to the overhead burden effectively borne by rate payers on the direct cost of electric power production. Overhead assigned to third party costs through TVA's rate calculation method and not billed to DOE becomes an inequitable burden on TVA's rate payers.

Another Comptroller General decision indicated that language in the interagency agreement cannot prevent recovery of the performing agency's (TVA) actual costs as required by the Economy Act.<sup>9</sup> Moreover, section B.3b. of the agreement broadly states "... All TVA in-house costs ... shall be reimbursed by DOE ..." We believe that section B.3b. would allow TVA to bill DOE separately for overhead assigned to third party costs through the rate calculation method. This would have the same effect as if TVA calculated overhead rates over an allocation base that excluded third party costs, resulting in significantly higher overhead rates on all other cost types and, consequently, a much larger amount of overhead assigned to the reimbursable direct costs billed under section B.3b.

<sup>8</sup> *In re Washington National Airport*, 57 Comp. Gen. 674 (1978).

<sup>9</sup> *In re GSA recovery of SLUC costs for Storage of IRS records*, 1984 Comp. Gen. LEXIS 105 (1984).

RECOMMENDATIONS

ex 5

ex 5

[ ex 5 ]

3 PAGES WITHHELD

EX 5