

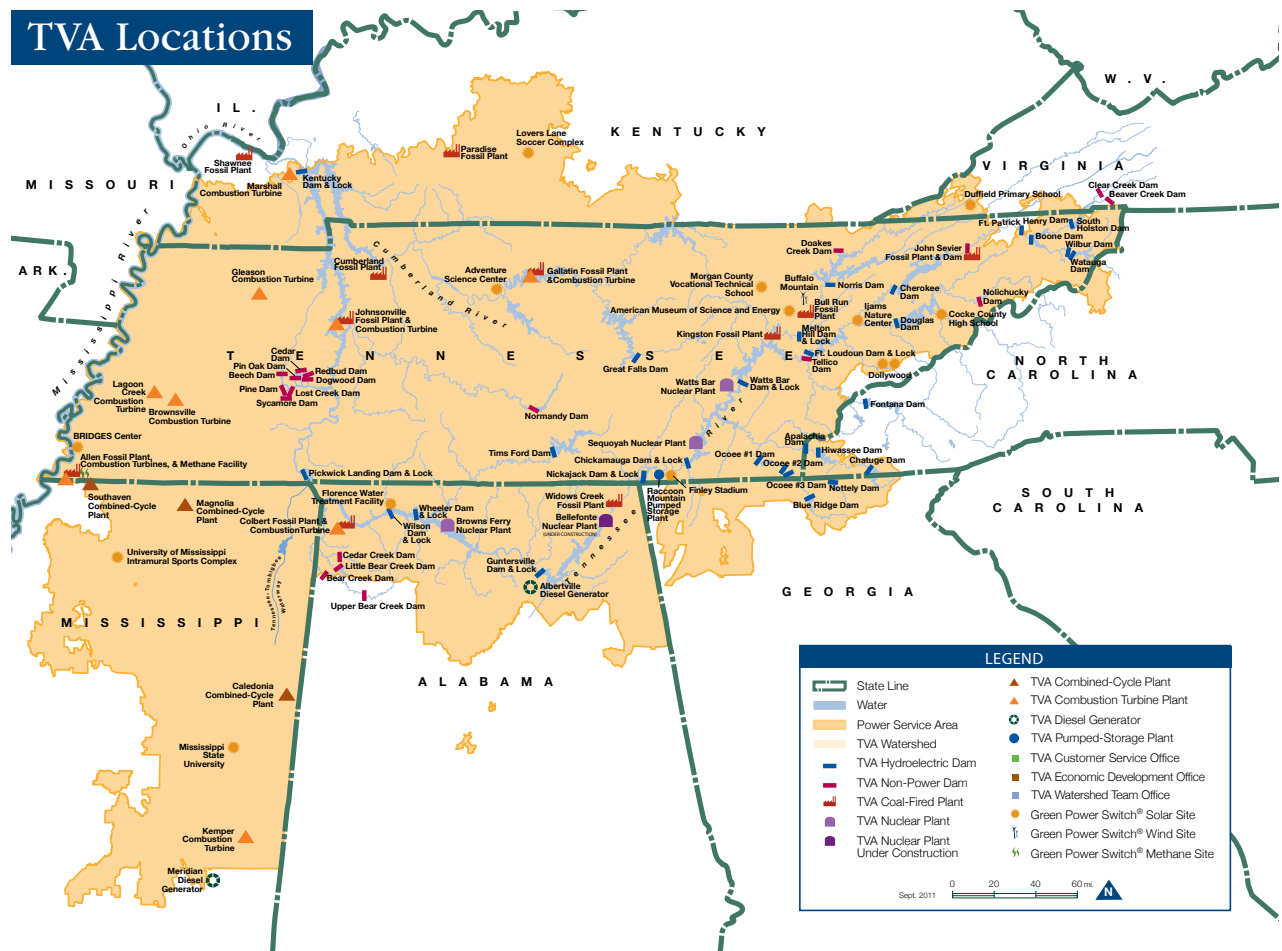
OFFICE of the INSPECTOR GENERAL  
TENNESSEE VALLEY AUTHORITY  
*Semiannual Report*  
OCTOBER 1, 2011 - MARCH 31, 2012



# THE CHALLENGE OF MANAGING *Change*

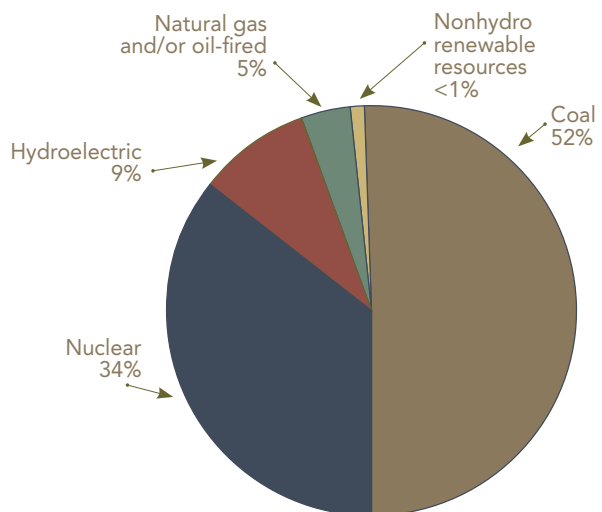


## TVA Locations



## TVA POWER GENERATION FY 2011

(in millions of kilowatt hours)



- Coal - 74,583
- Nuclear - 49,562
- Hydroelectric - 12,706
- Natural gas and/or oil-fired - 6,809
- Nonhydro renewable resources - 17

Source: TVA FY 2011 Annual Report



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# Message from the INSPECTOR GENERAL

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I am pleased to present our report for the period October 1, 2011, through March 31, 2012. The theme of our semiannual is “Managing Change,” and our feature highlights the challenges with managing one particular change—the decision to increase the Tennessee Valley Authority’s (TVA) reliance on nuclear energy.



In TVA’s lengthy history, one thing that has remained constant is change. This is especially true today as TVA works to realign its generation portfolio, which includes constructing new plants and idling others while keeping rates low and continuing high reliability. The utility industry has always faced the need to be nimble in adjusting to a volatile market. Today, however, the challenges for companies like TVA seem to come more quickly. The effective management of change has become even more critical.

The role of the Office of the Inspector General (OIG) in this area is: (1) providing an objective, fact-based look at how well TVA is managing change; (2) identifying risk areas associated with managing change; and (3) providing recommendations to reduce risks.

As you will see from the results of this semiannual period, the hard work of our OIG team has resulted in about \$12 million in recoveries, fines/penalties, potential savings, questioned costs, or funds put to better use. We also identified other monetary losses resulting from a capital project that had no realized benefits. Finally, we have provided numerous recommendations to help TVA improve. Some of the highlights include:

- TVA nuclear power program reviews, including a look at the Browns Ferry Nuclear Plant Extended Power Uprate project and the Watts Bar Nuclear Plant (Watts Bar) Unit 2 project cost and schedule; preaward reviews of engineering, support, and inspection services cost proposals; nuclear-related contract compliance reviews; performance trends in the

Nuclear Power Group; and the effectiveness of remediating problem evaluation reports at Watts Bar Unit 2.

- Governance and compliance reviews, including reviews of TVA’s budget process, information technology security and data protection, Winning Performance payouts, demurrage costs, coal quality adjustments, contract compliance reviews related to other TVA program areas, and other reviews related to compliance with federal requirements.
- Investigations resulting in four convictions, five indictments, and one pretrial diversion related to falsification of quality control documents at Watts Bar Unit 2; a kickback scheme involving the president of a distributor and a distributor contractor;





a Ponzi scheme presented as an opportunity to assist in the Kingston ash spill clean-up; workers' compensation fraud; and misuse of TVA funds.

Finally, I would like to thank the many members of TVA's

management team who during this last reporting period have requested reviews by the OIG and who have given their full cooperation in identifying challenges for TVA programs and then adopted appropriate solutions for those challenges.

In the end, our collaborative efforts will benefit all of our stakeholders.

Richard W. Moore  
Inspector General



# THE CHALLENGE *of* MANAGING CHANGE

TVA OIG SEMIANNUAL REPORT



# Special Feature

## THE CHALLENGE OF MANAGING CHANGE

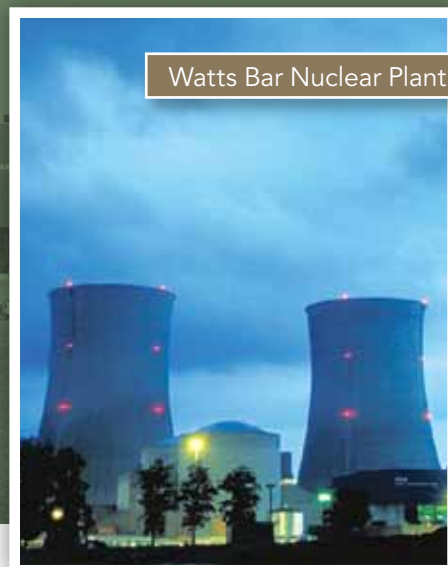
Since its creation in 1933, TVA has a long history of benefiting the Tennessee Valley. While TVA has had much success, it has also faced significant challenges. For all of those years, one constant remains: change. How those entrusted with oversight and management of TVA have managed change has largely determined the degree of success the agency has achieved.

Many changes over TVA's storied history were beyond the control of TVA Boards or TVA management. Some changes were driven by the anticipation of deregulation, weather, and shifting political forces that had their effect on the agency. There remains, however, much that both the TVA Board and TVA management can control, and focusing on what TVA can actually control has become increasingly critical. For example, TVA most assuredly can control its own strategy, its oversight of the enterprise, and the culture its leadership chooses to build. Therefore, creating and executing a clear, achievable strategy, providing oversight, and having a strong culture to support change becomes of paramount importance. The successes and failures of TVA, in one form or another, all emanate from how

well or how poorly TVA manages change within its control.

In this feature article, the OIG highlights one particular change by TVA: the strategic decision to increase its reliance on nuclear energy. The strategic shift to rely more on nuclear power to meet generation needs is a change that must be managed well if it is to make the lives of people in the Valley better.

TVA currently has six nuclear units at three sites in Tennessee and Alabama with a total of about 6,700 megawatt (MW) summer net capability.<sup>1</sup> In August 2007, the TVA Board of Directors approved the completion of Watts Bar Unit 2 at a cost of about \$2.5 billion, which would increase nuclear generation capability by approximately 1,200 MW in 2013. Also, in



August 2011, the TVA Board approved the completion of Bellefonte Nuclear Plant (Bellefonte) Unit 1 in Alabama, which would add 1,260 MW of generating capability. At an April 5, 2012, press conference, TVA management announced they would ask the TVA Board for an additional \$1.5 billion to \$2 billion and to extend Watts Bar Unit 2's completion date to December 2015. This decision would also postpone construction of Bellefonte Unit 1 because TVA has said construction would not begin until Watts Bar Unit 2 was completed and fuel was loaded.

The role of the OIG in this area is to offer objective, fact-based audits and investigations that accurately reflect how well TVA is managing change, identify risk areas associated with managing change, and provide

<sup>1</sup> Net capability is defined as the ability of an electric system, generating unit, or other system component to carry or generate power for a specified time period.



information to help TVA reduce its risks. While this feature article focuses on TVA's strategic decision to increase its reliance on nuclear energy, we do not suggest that what we present here is a comprehensive picture on this topic. What we offer is limited to work we have done during this reporting period and a review of Watts Bar Unit 2 construction, which was issued in May 2012. While our work in the nuclear area has revealed significant issues, TVA's public acknowledgement of the reasons for the problems with the Watts Bar Unit 2 project suggests that there are real "lessons learned" that hopefully will help TVA avoid the same mistakes in the future.

## CHANGE IN STRATEGIC VISION AND INTEGRATED RESOURCE PLAN

For most of TVA's past, coal has been the leading generating source. Faced with challenging economic conditions, an aging generating fleet, environmental regulations, and changing energy demand, TVA reexamined its strategic direction for its generation mix. In August 2010, TVA announced its vision to become "one of the nation's leading providers of low-cost and cleaner energy by 2020." Three components of the

vision are to be (1) our nation's leader in improved air quality, (2) our nation's leader in increased nuclear generation, and (3) the Southeast's leader in increased energy efficiency.

In April 2011, TVA's Board of Directors approved an Integrated Resource Plan (IRP),<sup>2</sup> which provides a framework for TVA's long-term vision. The IRP provides for a more balanced generation portfolio by reducing coal-fired generation capacity and increasing nuclear, gas, and renewables generation capacity, while placing more emphasis on energy efficiency and demand response options. The IRP projects, even with an emphasis on increased energy efficiency, TVA will need additional generating capacity to handle future growth and replace aging coal units that are being retired to reduce the need for significant capital investments to meet environmental regulations. TVA has committed to idle or retire 2,700 MW of coal-fired generation by 2017 or about 18 of its 59 fossil units. As of March 2012, TVA had idled 11 units.

The IRP calls for increasing the contribution of nuclear generation between 1,150 and 5,900 MW. While demand

projections may vary, nuclear will provide a potential hedge for reduced reliance on coal. In other words, even if TVA's projections about future load demand are wrong, TVA has determined that nuclear makes sense for many reasons. Although nuclear plants are expensive and complicated to build, nuclear is seen as a reliable source of base load that produces large quantities of electricity and, after hydro, has the lowest production costs. According to TVA, one nuclear unit can produce as much electricity as 5 to 10 coal units, without producing emissions attributed to smog, haze, acid rain, and climate change. Prior to 2007, TVA generated more than 60 percent of its power from coal-fired plants, about 30 percent from nuclear power plants, and the remainder from hydro and other resources. Under the new direction from the IRP, nuclear could become the largest source at 41 percent, coal at 31 percent, and gas, hydro, and other sources would constitute the remaining 28 percent of TVA's generation portfolio.

TVA has announced a clear vision for the future that involves substantial change. Managing this change is likely to be the

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<sup>2</sup> *Integrated Resource Plan –TVA's Environmental and Energy Future* (<http://www.tva.gov/environment/reports/irp/>) serves as a roadmap to help TVA in making choices to meet the electricity demands of the Valley through 2029. In addition to TVA personnel, a Stakeholder Review Group was formed to provide TVA with their viewpoints, and the public was provided opportunities to participate in the process.



most important challenge for TVA. Moving toward more nuclear will require successful management of existing operational units while also managing multi-billion dollar construction projects. TVA has recognized that building a supportive employee culture is key to its success. Organizational health is a long-term goal requiring sustainable progress to meet TVA's considerable challenges. Some of the challenges TVA faces in managing change include remediating Nuclear Regulatory Commission (NRC) compliance issues at all three existing sites, overseeing costs and schedules for construction projects, obtaining craft and specialty skill labor that

is in short supply, meeting environmental requirements, having adequate capital funding available, and handling congressional and public perceptions.

### THE HISTORICAL PERSPECTIVE

Any student of TVA's history knows that over the last 79 years, TVA has recognized the need to change and has shifted the strategic direction of its generation portfolio accordingly. TVA's Board, management, and employees worked diligently to make these changes successful so TVA would remain an asset to the region. When TVA was created in 1933, the Tennessee Valley was a very poor and

disadvantaged area. TVA built dams to control floods, improve navigation, and generate electricity. TVA developed fertilizers, taught farmers new techniques to help yield better crops, and improved the habitat for wildlife and fish. As a result of this investment in the Valley, the region began drawing industries and jobs to the area. In the 1940s, World War II increased the need for electricity, and TVA began one of the largest hydropower construction programs ever undertaken and built the first of its coal-fired generation plants. In the 1950s, TVA continued construction on hydroelectric and coal-fired plants, and Congress passed legislation making the TVA power system self-financing.



The 1960s brought unprecedented economic growth to the Tennessee Valley. Electric rates were among the lowest in the nation and stayed low as larger more efficient generating units were brought into service. With the Valley's power needs expected to continue to grow at a high rate, TVA began looking to nuclear plants as a new source of economical power. In 1966, TVA embarked on an ambitious nuclear construction program to build 17 units at seven sites across the Valley. However, forecasted demand from the 1960s did not materialize, and the economy of the Valley and the nation took a downward turn. The decreasing energy

demand and increasing construction costs resulted in TVA canceling several nuclear plants, as did other utilities around the nation. TVA completed six units on three sites in Tennessee and Alabama between 1974 and 1996. Since the 1970s, TVA's nuclear program has had its share of challenges including:

➤ A major fire in 1975 that led to the shutdown of two units at Browns Ferry Nuclear Plant (Browns Ferry) for 18 months and fundamentally changed the concept of fire protection and associated regulatory requirements for United States (U.S.) nuclear power plants.

➤ The voluntary shutdown by TVA in 1985 of its nuclear units at Browns Ferry and Sequoyah Nuclear Plant (Sequoyah) after experiencing repeated outages caused by equipment and maintenance problems and delaying its request for the operating license for Watts Bar. According to the NRC, TVA had demonstrated "ineffective management in many areas of its nuclear program" and identified three general areas of concern: (1) programmatic and management deficiencies; (2) plant-specific deficiencies at Browns Ferry, Sequoyah, and Watts Bar; and (3) a lack of confidence expressed



*From*  
**NEW DEAL**  
*to a*  
**NEW CENTURY**

### 1930s Era of Flood Control

Even by Depression standards, the Tennessee Valley was in sad shape in 1933. Much of the land had been farmed too hard for too long, eroding and depleting the soil. TVA, which was signed into existence by President Franklin D. Roosevelt, built dams to harness the region's rivers. The dams controlled floods, improved navigation, and generated electricity.





to the NRC by a number of TVA employees. TVA management set forth a strategy to remediate issues and revamp the nuclear program for TVA. The Sequoyah units were the first to be put back into production in 1988. Browns Ferry's three units were put back into production in 1991, 1995, and 2007 respectively.



Browns Ferry Nuclear Plant

➤ NRC findings at each of TVA's nuclear sites during the past year, which means TVA's units are subject to increased oversight and inspection by the NRC. Specifically, Browns Ferry received a "red" finding (high safety significance) in May 2011 because of a TVA

identified issue with a valve; Watts Bar received a "greater than green" finding (very low safety significance) in December 2011 as a result of issues discovered in recent physical security inspections; and Sequoyah Unit 1 received

a "white" finding (low to moderate safety significance) during the first quarter of 2012 due to the number of unplanned reactor shutdowns in an 18-month period. In April 2012, the NRC announced it was lifting the



### 1940s Era of the Dams

During World War II, TVA engaged in one of the largest hydropower construction programs ever undertaken in the United States. In early 1942, when the effort reached its peak, 12 hydroelectric projects and a steam plant were under construction at the same time.

### 1950s Era of the Coal-Fired Power Plants

By the end of the war, TVA had completed a 650-mile (1,050-kilometer) navigation channel the length of the Tennessee River and had become the nation's largest electricity supplier. Senator George W. Norris of Nebraska, known as the Father of TVA, is shown here at Norris Dam.



### 1960s Era of the Nuclear Power Plants

The 1960s saw unprecedented economic growth in the Tennessee Valley. Expecting the Valley's electric power needs to continue to grow, TVA began building nuclear plants as a new source of economical power.



"white" finding and returning Sequoyah to a "green" status.

While TVA's record in nuclear generation has been plagued by events, such as those highlighted on the previous page, most of TVA's stakeholders realize that they have benefited from TVA safely generating a tremendous amount of power from its nuclear plants. TVA has had successes in nuclear construction and operations, such as:

➤ TVA successfully completed construction of Browns Ferry Unit 1 in 2007, on time and just slightly over budget. The American Nuclear Society presented TVA with the 2007 Utility Achievement Award for

Outstanding Improvement in Performance "... in recognition of the most extensive restart effort in the nuclear industry, culminating in the successful return to service of Unit 1 as the first nuclear generating plant to come online in more than a decade."

- Over the past 10 years, TVA's nuclear units have supplied almost 479 million kilowatt hours of electricity, according to TVA's 10-K and annual reports.
- TVA has had long continuous runs where a unit or all the units at a site have produced power without a forced outage. Most recently, in April 2012, TVA shut down

Browns Ferry Unit 3 for scheduled refueling and maintenance but not before setting a record for the longest period all three units have run continuously.

## NUCLEAR INDUSTRY

According to the U.S. Energy Information Administration (EIA), the U.S. is the world's largest producer of nuclear power. While natural gas and coal represents the largest share of electric power generation capacity in the U.S., for cost and technical reasons, nuclear power plants are generally utilized more intensively, according to EIA. In addition, companies have made technical modifications to existing plants (uprates) over the years to



### 1970s and 1980s

The average cost of electricity in the Tennessee Valley increased fivefold from the 1970s to the 1980s. Consequently, TVA began improving efficiency and productivity while cutting costs. By the late 1980s, TVA had stopped the rise in power rates and paved the way for a 10-year period of rate stability.

### 1990s Era of Deregulation

As the electric-utility industry moved toward restructuring, TVA began preparing for competition. It cut operating costs by nearly \$800 million a year, reduced its workforce by more than half, increased the generating capacity of its plants, stopped building nuclear plants, and developed a plan to meet the energy needs of the Tennessee Valley through the year 2020.





increase capacity. EIA also states “. . . uprates, combined with high utilization, have enabled nuclear to consistently maintain a share of about 20% of total electricity output.” TVA is not the only utility to have filed for approval to build or refurbish nuclear units. In February 2012, Southern Company received approval to build two units at its Vogtle site in Georgia at a cost of \$14 billion for two 1,100 MW units. The economy, as well as lower gas prices, however, has again caused some utility companies to slow their plans for additional nuclear capacity.

The industry has encountered three major nuclear events—Three Mile Island in 1979,

Chernobyl in 1986, and Fukushima Daiichi in 2011—which caused the industry and its regulator, NRC, to review the causes and issue new requirements to improve safety. On March 12, 2012, the NRC issued the first regulatory requirements for the nation’s 104 operating reactors based on the lessons learned at the latest nuclear disaster, Fukushima, in Japan. These requirements must be implemented no later than December 2016. Major events, such as those described above, typically lead to additional modifications, which increase the capital costs for nuclear generation.

## OIG REPORTS

As discussed above, the role of the OIG in this area is to offer objective, fact-based audits and investigations that accurately reflect how well TVA is managing change, identify risk areas associated with managing change, and provide information to help TVA reduce its risks. During this semiannual reporting period, we completed several audits and investigations that aid TVA management in identifying areas where programs are, or are not, working well. Our discussion below is limited to OIG work involving TVA’s nuclear power program during this reporting period and our review of the Watts Bar Unit 2 cost and schedule, which was issued in



### 2000s

During the first decade of the 21<sup>st</sup> century, TVA introduced the first green power program in the Southeast when it launched the Green Power Switch® program on Earth Day 2000. In 2004, TVA established a nine-member part-time board in place of its three-member full-time board.

To meet growing power demand, the last of the three reactor units at Browns Ferry was returned to service as scheduled in May 2007. In August 2007, plans were approved to complete construction of Watts Bar Unit 2.

On Dec. 22, 2008, a storage pond dike failed at the Kingston Fossil Plant in East Tennessee prompting a massive cleanup and restoration of the area.

### 2010s

TVA is working to improve its core business in the areas of low rates, high reliability, and responsibility and meet the region’s needs for the future by: leading the nation in improving air quality and increased nuclear production as well as leading the Southeast in increased energy efficiency.

TVA affirmed its commitment to improve the region’s environment when plans were adopted to retire 18 of TVA’s 59 coal-fired units by the end of 2017. In November 2011, plans were approved for completing one of the two partially built reactors at Bellefonte by 2020.





May 2012. Some highlights of our work include:

### **Browns Ferry Extended**

**Power Uprate**—This review was requested by TVA management because of concerns they had over this project. During 1999, TVA began conceptualizing an Extended Power Uprate (EPU) project, which would increase the generation capacity of Browns Ferry by 15 percent. The project began in 2001 and was expected to be completed in two to four years based on industry-wide experience; however, the Browns Ferry project remains incomplete. The OIG performed an extensive inquiry and identified the primary causes for the continuing delays and cost overruns. The OIG concluded TVA senior management's decisions early in the EPU project were the most significant factor in the lack of progress in the project. TVA spent about \$97 million on direct EPU costs and \$26.5 million on incremental fuel costs since 2001. Additionally, TVA's marginal costs for replacement power ranged from \$373 million to \$448 million as a result of not achieving the EPU by the targeted dates. TVA executive management acknowledged cultural issues, which may still exist, and stated they

are committed to improving the culture of TVA through transformation initiatives and other actions including creating and maintaining an environment where all employees feel comfortable raising concerns to management or through any of the multiple available avenues.

### **Watts Bar Unit 2 - Cost and**

**Schedule**—The Watts Bar Unit 2 construction project has experienced significant schedule and cost overruns. The project was originally expected to be complete in October 2012 at a cost of just under \$2.5 billion. However, TVA will not meet these targets. The OIG alerted the TVA Board that the schedule and budget were in jeopardy due to various problems. In mid-2011, we met with TVA executives to brief them on our concerns surrounding the project. In August 2011, we briefed the TVA Board's Audit, Risk, and Regulation Committee on our concerns and gave them the preliminary findings that are now contained in the written report completed after the briefings.

We found two primary reasons for the schedule and cost overruns. Based on our assessment of the issues raised in various meetings, discussions with Watts Bar Unit 2 and

TVA personnel, and reviews of project documentation, we determined the poor performance experienced at Watts Bar Unit 2 was attributable primarily to (1) deficiencies in project set-up and (2) ineffective management oversight.

Problems with the original project set-up included the following:

- The project's detailed scoping, estimating, and planning study was not as robust as it should have been to provide accurate schedule and cost estimates.
- Certain planned prime subcontractor agreements were not implemented, ultimately requiring TVA to enter into direct contracts.
- TVA's ability to remove Bechtel from the project if problems occurred was limited because Bechtel was the American Society of Mechanical Engineers certification holder.
- Construction began before engineering progress had reached a sufficient level, causing significant productivity and work quality issues.



Watts Bar Nuclear Plant

Project management in key areas was also ineffective. Specifically, TVA management did not:

- Perform effective oversight of the engineering, procurement, and construction contractor.
- Address certain warning signs that the project was in trouble.
- Adequately mitigate known problems related to staffing, work order packages, information provided to the NRC, and the procurement of materials that require a long lead time to obtain.

TVA has taken several actions to address the problems identified at Watts Bar Unit 2. These actions include management changes, developing an updated cost and schedule estimate, and conducting an extensive root-cause analysis to understand the underlying issues, including the development of corrective actions to address the identified issues. Some of the corrective actions include developing weekly project and high-level status reports, a project assurance function, an alignment and engagement strategy, a communication plan, and team rules. These items are intended to offer an accurate reflection of

the project's progress, engage and improve the relationship with the project workers, and promote transparency.

### **Effectiveness of Remediation of Problem Evaluation**

**Reports—**Nuclear employees and contractors have various methods that can be used to identify and promptly report problems and adverse conditions for evaluation and corrective action. Concerns may be reported through line supervision, the Corrective Action Program, or either TVA's or the contractor's Employee Concerns Program. When problems are identified, a



problem evaluation report (PER) is initiated so the problem can be captured, categorized by a project review committee, and remediated. As a result of issues discussed during meetings at Watts Bar, we reviewed the PER process for Watts Bar Unit 2 and the effectiveness of remediation. In summary, we found opportunities to improve the effectiveness and efficiency of the process, most notably in the areas of timely closing of Corrective Action Plans (CAP) and improving trending of PERs.

**Nuclear Power Group's Performance Trends**—The Institute of Nuclear Power Operations (INPO) compiles performance trends for nuclear performance, safety, and reliability of nuclear facilities. We reviewed INPO index data, an industry standard, for the years 2005 through 2010. We found TVA's nuclear group performance with respect to the INPO index, declined through 2007 primarily because of planned and forced outages, but performance improved from 2008 through 2010 due

to initiatives that focused on equipment reliability and a gap-based business plan. We also reviewed elements of the culture in the Nuclear Power Group and noted that while management has taken some corrective actions, the culture could be further enhanced by addressing certain issues.

**Falsification of Quality Control Documents**—Prior to this reporting period, investigations revealed a contractor electrician and his supervisor falsified quality control documents at



Watts Bar Unit 2. The electrician had been assigned to inspect and measure cables that were to carry energy to systems inside the containment area, including to safety equipment. The electrician attested he completed microreadings of the cables when he had not. The subordinate subsequently came to his supervisor admitting micrometer measurements had not been done at the time the job should have been completed. The supervisor then directed the subordinate to enter micrometer measurements onto the appropriate quality control forms. After the false entries were made, the supervisor executed a work closure form certifying the work had been completed when he knew the work had not been done. During this semiannual period, the electrician and his supervisor were each sentenced to 100 hours of community service and two years of probation.

## TRANSPARENCY AND ACCOUNTABILITY

The audits and investigations that we conducted in the nuclear area resulted in findings that highlight significant problems in TVA's nuclear program. Specifically, the OIG report on the Watts Bar Unit 2 schedule and budget overruns naturally raises questions about the competency of TVA

management to effectively oversee the construction of nuclear reactors. Essential to TVA's success in building new nuclear generation capacity is transparency and accountability. There is evidence TVA is making a deliberate decision to be more transparent in explaining its operations when mistakes are made. What should also be apparent to TVA stakeholders is evidence that TVA management is owning their problems in a transparent way and taking responsibility for management failures.

Perhaps more than anything else, TVA's press conference on April 5, 2012, addressing the Watts Bar Unit 2 schedule and budget overruns suggests that TVA is more likely to apply lessons learned to future construction of nuclear generation facilities. Rather than deflect blame, TVA leadership stepped up and specifically named what mistakes were made. In the press conference, Mike Skaggs, Senior Vice President, Nuclear Construction, stated TVA was refocusing and "trying to get back on track." He stated there were four causes for the schedule and cost estimates being so far off base. Specifically, Mr. Skaggs cited (1) "leadership," (2) "cost estimate was too low," (3) "management failed to execute the project as it had defined in its own plans," and

(4) TVA had "no easy catch metrics" that could be used in TVA's oversight process to give insight into when things were not going right. Not only did TVA management step up and name their mistakes, they also cited what steps TVA is taking to avoid these mistakes again. TVA management also indicated they would be reviewing their plan for Bellefonte in light of the problems at Watts Bar Unit 2. Applying lessons learned from Watts Bar Unit 2 to future projects is critical to TVA's success in building new generation capacity to achieve a more balanced generation portfolio.

Despite the significant failure of TVA management to meet its projections on Watts Bar, this level of transparency is critical to TVA stakeholders who have an interest in how well TVA manages the construction and operation of its nuclear fleet. We would also add that the OIG has engaged in good faith dialogue with current TVA management during these reviews. This type of dialogue fosters an atmosphere of improving TVA rather than merely finding fault or shifting blame. In the end, better solutions for a better TVA are being found. This is a critical part of effectively managing change at TVA and, ultimately, making TVA better.

An aerial photograph of a large industrial facility, likely a power plant, featuring two prominent tall smokestacks. The foreground is dominated by a dense forest with trees in various shades of green and brown. The facility itself includes several large buildings, including a red one, and a series of green-roofed structures. A body of water is visible to the right of the facility. The sky is blue with some light clouds.

# EXECUTIVE OVERVIEW

TVA OIG SEMIANNUAL REPORT



# EXECUTIVE OVERVIEW

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Change is one thing that has endured over TVA's 79 years. Today is no different. TVA's vision is to be "one of the nation's leading providers of low-cost and cleaner energy by 2020." To achieve this vision requires changing the generation portfolio—less coal-fired capacity and more nuclear and renewable energy capacity as well as more focus on energy efficiency. How well TVA manages these changes will determine its success. In our feature, we talk about one of the areas of change—the strategic decision to increase TVA's reliance on nuclear energy.



TVA Towers, Knoxville

The OIG's role is to (1) offer fact-based audits and investigations that accurately reflect how well TVA is managing change, (2) identify risk areas, and (3) provide information to help TVA reduce its risks. In this semiannual report to Congress, we highlight key audits, evaluations, and investigations that provide insight into how TVA can improve its operations.

## AUDITS

During this reporting period, the TVA OIG completed 20 audits, reviews, and agreed-upon procedures related to TVA's nuclear power program, coal, contracting, information technology (IT), corporate governance, and compliance with various federal requirements. This work identified almost \$12 million in questioned costs and funds that could be put to better use. The

OIG also identified numerous opportunities for TVA to improve program operations.

### Operational Audits

In order to provide assurance on the reliability of TVA's system of operational controls, we completed an audit of demurrage costs, which identified almost \$4 million in questioned costs and funds that could be put to better use. In addition, we completed three reviews related to TVA's budget process, the effectiveness of PERs at Watts Bar Unit 2, and coal quality adjustments. Finally, we applied agreed-upon procedures to TVA's 2011 Winning Performance (WP) payout and performed procedures to monitor the external auditors' fiscal year (FY) 2011 audit of TVA's financial statements. The Operational Audits section begins on page 29 of this report.

### Contract Audits

To support TVA management in negotiating procurement actions, we completed four preaward reviews of cost proposals submitted by companies proposing to provide (1) engineering services for work at Bellefonte Unit 1, (2) indirect support services at Watts Bar, (3) a perimeter stabilization project for a TVA fossil plant, and (4) inspection services to support TVA's nuclear power program. Our audits identified \$6.2 million of potential savings opportunities for TVA to negotiate. We also completed three compliance audits of contracts with expenditures totaling \$384 million related to (1) modification, supplemental maintenance services, and technical support services at TVA nuclear plants; (2) fly ash management services; and (3) modifications and supplemental maintenance work





Kingston Fossil Plant

at TVA fossil and hydro plants. These audits identified potential overbillings of \$1.6 million. The Contract Audits section begins on page 33 of this report.

### IT Audits

To ensure TVA's IT assets are properly secured and

appropriate controls are in place, the IT Audits team completed five audits pertaining to: (1) the Federal Information Security Management Act (FISMA) of 2002; (2) data protection controls for TVA's personally identifiable information (PII)/personal health information (PHI) held by two

different vendors; (3) security controls for one TVA facility; and (4) TVA compliance with the Maritime Transportation Security Act (MTSA) of 2002. The IT Audits section begins on page 34 of this report.



## Corporate Governance and Finance Audits

With a focus on TVA's role as a regulator, TVA distributors' compliance with the wholesale power contracts, and TVA's financial reporting, we completed a mandated review of TVA's compliance with the Improper Payment Information Act (IPIA) of 2002, as amended, as well as two audits of TVA distributors to determine compliance with key contract terms between TVA and the distributors. The Corporate Governance and Finance Audits section begins on page 36 of this report.

## EVALUATIONS

We assessed the Nuclear Power Group's performance trends and certain cultural elements. The

Evaluations section begins on page 39 of this report.

## INVESTIGATIONS

During this reporting period, our findings produced four convictions, five indictments, and one pretrial diversion. Individuals were prosecuted in state and federal venues on various charges, such as workers' compensation fraud, mail and wire fraud, false statements, and theft. Additionally, one administrative investigation identified \$97 million spent on an unsuccessful nuclear power EPU project as well as \$26.5 million in incremental fuel costs and an estimated \$373 million in marginal costs for replacement power. Other investigations garnered restitution, fines, and fees exceeding \$19,000. We opened 178 investigations and closed 202. The Investigations section begins on page 41 of this report.

## STATISTICAL HIGHLIGHTS

October 1, 2011 - March 31, 2012

Audit Reports Issued	20
Evaluations Completed	1
Questioned Costs	\$5,110,209
Disallowed Costs	\$5,695,122
Funds Recovered	\$1,143,164
Funds to Be Put to Better Use	\$6,701,600
Funds Realized by TVA	\$2,440,634
Investigations Opened	178
Investigations Closed	202
Recoveries/Savings/Fines/Penalties	\$19,217
Other Monetary Loss	\$496,500,000
Criminal Actions	10
Administrative Actions (No. of Subjects)	19



# TVA OIG *Organization*

**Inspector General**

Deputy Inspector General

Assistant Inspector General,  
Investigations

Special Agent in Charge

Special Agent in Charge

Assistant Inspector General,  
Audits and Evaluations

Deputy Inspector General,  
Audits

Director, IT Audits

Director, Operational Audits

Director, Corporate Governance  
and Finance Audits

Director, Contract Audits

Director, Evaluations

Assistant Inspector General,  
Administration

Manager, Human Resources

Public Affairs Officer

Legal Counsel

Deputy Legal Counsel



## ORGANIZATION

The OIG's most important resource is its people. Our team is made up of experienced auditors, investigators, and administrative staff. The OIG is an independent office within TVA and is headquartered opposite TVA corporate offices in TVA's East Tower, overlooking downtown Knoxville.

Inspector General Richard Moore believes that in order to effectively provide oversight to TVA, we must be strategic in our placement of OIG employees. As such, the Inspector General (IG) has worked to ensure that our office has a presence at or near all major TVA facilities throughout the Tennessee Valley.

In late September, OIG management announced a reorganization of the OIG's audits and inspections function and the establishment of a Deputy Assistant Inspector General (AIG) for Audits.

The reorganization is a part of our strategic planning to ensure a high performing OIG. Performance is driven by two key components: (1) operational excellence and (2) organizational health. The changes have helped us function better operationally and have continued to support good



Downtown Knoxville

organizational health. Key aspects of the reorganization are mentioned in the following department descriptions. The upper management position changes that took place to support the reorganization are described below.

- The AIG for Audits and Inspections' title was changed to AIG for Audits and Evaluations.
- A new Deputy AIG for Audits position was created. This position focuses primarily on Contract, IT, and Corporate Governance and Finance

Audits. The Directors of these three teams report directly to the Deputy AIG for Audits.

- The Audits' quality assurance (QA) function now reports to the Deputy IG.

### TVA OIG Office Locations

The OIG has a major satellite office in the Edney Building in Chattanooga, Tennessee, where the Evaluations unit, members of the Corporate Governance and Finance team, and several investigators are located. There are also staffed field offices at Watts Bar in Tennessee; and also in Nashville, Tennessee;



Fontana Dam

Huntsville, Alabama; and Mayfield, Kentucky.

As of March 31, 2012, the OIG had a total staff of 105. The number of personnel located at each staffed office is: Knoxville-81, Watts Bar-1, Chattanooga-16, Nashville-2, Huntsville-4, and Mayfield-1.

## ADMINISTRATION

The Administration team works closely with the IG, Deputy IG, and AIGs to address the day-to-day operations of the OIG and to develop policies and procedures

designed to drive and enhance productivity in achieving office goals. Responsibilities include personnel administration, budget and financial management, purchasing and contract services, facilities coordination, office-wide meeting planning, communications facilitation, and IT support.

## AUDITS AND EVALUATIONS

*The Audits and Evaluations group* performs a wide variety of engagements designed to promote positive change and provide assurance to TVA

stakeholders. Based upon the results of these engagements, the Audits and Evaluations group makes recommendations to enhance the effectiveness and efficiency of TVA programs and operations.

The group uses an impact- and risk-based approach to develop an annual work plan. The plan considers TVA's strategic plans, major management challenges, TVA's enterprise risk management process, and other input from TVA management. The planning model also evaluates each potential



engagement from the standpoint of materiality (i.e., costs or value of assets), potential impact, sensitivity (including public and/or congressional interest), and the likelihood it will result in recommendations for cost savings or process improvements. The result of the Audits and Evaluations planning process is a focus on those issues of highest impact and risk to TVA.

*The Audits team*, primarily based in Knoxville, generates and oversees comprehensive financial and performance audits of TVA programs and operations, providing an inclusive picture of TVA's overall fiscal and operational health.

This dynamic team is made up of four departments—Contract Audits, Corporate Governance and Finance Audits, IT Audits, and Operational Audits.

- Contract Audits has lead responsibility for contract compliance and preaward audits. In addition, this group performs reviews of TVA contracting processes and provides claims assistance as well as litigation support.
- Corporate Governance and Finance Audits, formerly Distributor Audits, has lead responsibility for oversight of TVA's regulatory activities, including TVA distributors' compliance with the wholesale power contract and
- conducts operational reviews to assess the results as well as the economy and efficiency of TVA's financial programs.
- IT Audits has lead responsibility for audits relating to the security of TVA's IT infrastructure, application controls, and general controls associated with TVA systems. This group also performs operational reviews of the effectiveness of IT-related functions.
- Operational Audits, formerly Financial and Operational Audits, became a separate unit to focus on risk and impact-driven operational audit work. The team performs audits of operational



Bellefonte Nuclear Plant

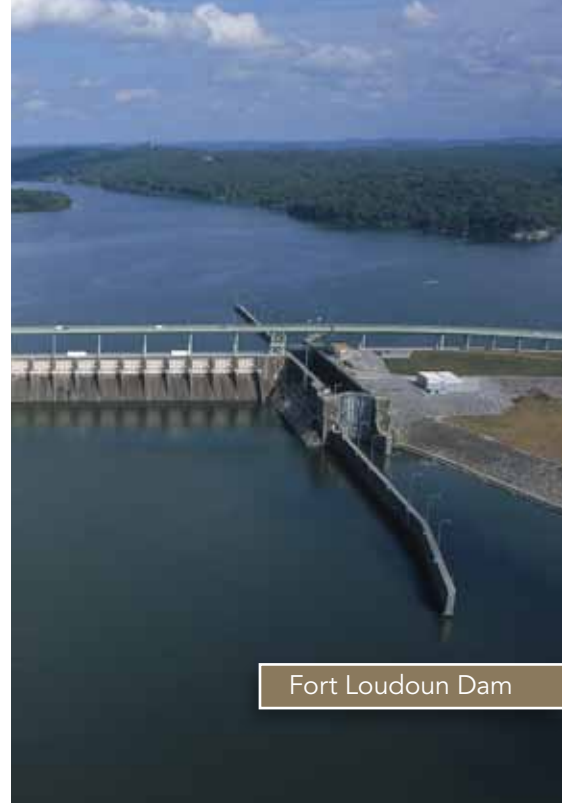


effectiveness and efficiency, as well as TVA compliance with laws and regulations.

**The Evaluations team**, formerly Inspections, seeks to ensure that program objectives and operational functions are achieved effectively and efficiently. It performs both comprehensive reviews and more limited scope policy and program reviews. In accordance with the *Quality Standards for Inspection and Evaluation*, the objectives of the unit include providing a source of factual

and analytical information, monitoring compliance, measuring performance, assessing the efficiency and effectiveness of operations, and/or conducting inquiries into allegations of fraud, waste, abuse, and mismanagement.

Audit and evaluation issues vary depending on the objectives of the project. The following graphic shows some representative examples of issues commonly reported by each department.



Fort Loudoun Dam

## TYPES OF AUDIT & EVALUATION ISSUES

### Corporate Governance and Finance Audits

- Improvements Needed in TVA Oversight
- Internal Control Deficiencies
- Material Misstatements
- Legal/Regulatory Noncompliance
- Fraud

### Operational Audits

- Operational Inefficiency
- Not Achieving Intended Results
- Inferior Performance
- Legal/Regulatory Noncompliance
- Fraud

### Information Technology Audits

- Unauthorized Access
- Inadequate Controls
- Lack of Data Integrity
- Fraud

### Evaluations

- Internal Control Deficiencies
- Operational Inefficiency
- Policy Noncompliance
- Fraud

### Contract Audits

- Inflated Proposals
- Contract Overpayments
- Inferior Performance
- Fraud

# MAJOR CATEGORIES OF INVESTIGATIONS

## Contract Fraud

Defrauding TVA through its procurement of goods and services, fraud schemes of misrepresenting costs, overbilling of charges, product substitution, and falsification of work certifications.

## Theft of Government Property and Services

Theft of TVA property and "schemes to defraud . . . designed to deprive individuals, the people, or the government of intangible rights, such as the right to have public officials perform their duties honestly."

## Environmental Crime

Violations of environmental criminal law pertaining to the Tennessee River system and its watershed, along with any violations relating to TVA land and facilities.

## Health Care Fraud

Intentional misrepresentation of health care services, expenses, billings, needs, or coverage that results in unauthorized payments or other benefits.

## Illegal Hacking Into TVA Computer Systems

Accessing a TVA computer without authorization or exceeding authorized access.

## Workers' Compensation Fraud

Includes employee fraud, medical fraud, premium fraud, and employer fraud, most often a false claim of disability to receive benefits.

## Employee Misconduct

Misuse of TVA furnished equipment, travel voucher fraud, and a multitude of miscellaneous matters of abuse.

## INVESTIGATIONS

### *The Investigations team*

uncovers activity related to fraud, waste, and abuse in TVA programs and operations. This team performs its investigations in accordance with the *Quality Standards for Investigations*. The investigators maintain liaisons with federal and state prosecutors and file reports with the Department of Justice whenever the OIG has reason to believe there has been a violation of federal criminal law.

The investigators partner with other investigative agencies and organizations on special projects and assignments, including interagency law enforcement task forces on terrorism, the environment, and health care. Above are major categories of investigations.

## LEGAL

### *The Legal Counsel team*

monitors existing and proposed legislation and regulations that relate to the mandate,

operations, and programs of the OIG and/or TVA. Additionally, this team provides legal advice as needed for administrative, audit, evaluation, and investigative projects.





# REPRESENTATIVE AUDITS

TVA OIG SEMIANNUAL REPORT



# Summary of REPRESENTATIVE AUDITS

During this semiannual period, our Audits team completed 20 audits, reviews, and agreed-upon procedures. This work identified almost \$12 million in questioned costs and funds that could be put to better use. Below is a discussion of completed reviews in the following areas: (1) operational, (2) contract preaward and compliance, (3) IT, and (4) corporate governance, finance, and distributors of TVA power.



Kentucky Dam

## OPERATIONAL AUDITS

During this semiannual period, Operational Audits completed four reviews related to demurrage costs, TVA's budget process, the effectiveness of PERs at Watts Bar Unit 2, and coal quality adjustments. In addition, we applied agreed-upon procedures to TVA's 2011 WP payout and performed procedures to monitor the external auditors' FY 2011 audit of TVA's financial statements.

### TVA's Demurrage Costs

Demurrage is the fee charged by barge and rail companies for delays in the loading or unloading of coal from company-owned assets. We reviewed demurrage costs incurred from October 1, 2004, through June 13, 2011, totaling \$14 million, to assess why demurrage costs were incurred and what actions, if any, TVA could take to minimize these

costs. In summary, we identified almost \$4 million in questioned costs and funds that could be put to better use and several areas for improvement, which would help TVA minimize these costs, as detailed below.

- \$1,036,100 in origin demurrage costs had not been billed back to a contractor as provided for in the contract.
- TVA had not fulfilled its contractual obligation to provide a contractor with applicable portions of barging agreements, resulting in \$537,440 in unrecoverable demurrage costs.
- \$376,667 in demurrage costs were incurred and billed back to the contractor but had not been paid.
- TVA's agreement with a contractor lacked the

necessary language to hold the contractor accountable for origin demurrage costs until January 1, 2011, when a new contract was put in place, resulting in unrecoverable demurrage costs of \$784,000.

- Due to inconsistencies in demurrage contract terms for coal delivered to the Cumberland Fossil Plant (CUF), TVA incurred approximately \$764,400 in unrecoverable costs; changes to the unload time under this same contract could save TVA about \$327,600 annually.
- A clause in TVA's contract for delivery to the Allen Fossil Plant (ALF) was not aligned with the operating conditions at the plant, which prevented TVA from using a provision to mitigate demurrage costs.
- Origin and destination demurrage costs were





Coal Barge

not tracked separately, which prevented TVA from transferring origin demurrage costs to the supplier.

- Eliminating barge damage charges at ALF could reduce costs by at least \$145,000 per year.
- Addressing operational challenges at ALF and CUF could reduce demurrage costs at these plants.

As a result of the operational challenge at ALF, we also noted that when the focus of a business unit is on their individual goals rather than TVA goals, the overall strategic business unit's budget and, ultimately, TVA's expenses can be impacted. This was previously identified in OIG Audit 2002-911E, Review of the Coal Procurement Process.

In addition, we determined that more effective knowledge of the contract demurrage terms; monitoring of the contracts; and communication among terminal, barge, and rail contract administrators, the Coal and Gas Services personnel responsible for demurrage payments, and Yard Operations personnel are needed.

TVA management agreed with our findings and recommendations and is taking corrective action to address these issues.

### Effectiveness of TVA's Budget Process

We reviewed the effectiveness of TVA's budget process to determine the adequacy of the methods used in preparing, reviewing, and adopting the FY 2011 budget. In general, we determined the overall

design of the budget process appeared to be sufficient to achieve the desired results. We found nothing to indicate the benchmarking process is not sufficient to allow TVA to benchmark itself against its peers. We also found nothing to indicate the budget review and approval process was insufficient. However, we did identify opportunities where the process could be strengthened and improved. Specifically, we determined:

- A formal written procedure directing the budget process did not exist.
- Operating and maintenance targets were set using historical data rather than being tied to fundamental business drivers.

- A control to ensure each submitted business plan aligns resources with strategic goals was not operating as intended.
- The budget process addressed risk management initiatives at the organizational level; however, entity-wide risk management was not directly addressed.
- The process for prioritizing capital and operating and maintenance projects among organizations could be improved.
- The budget process relied heavily on compiling data from multiple spreadsheets, which was manually intensive, time consuming, and can be error-prone.

TVA management generally agreed with our findings and recommendations and has taken corrective action to address these issues.

### Effectiveness of Remediation of Problem Evaluation Reports at Watts Bar Unit 2

When nuclear employees and contractors identify problems and adverse conditions, a PER is initiated so the problem can be captured, categorized by a project review committee, and remediated. As a result of issues discussed during meetings at

Watts Bar, an audit was initiated to (1) assess the process for remediating PERs for the Watts Bar Unit 2 project and (2) determine the effectiveness of remediation stemming from the PER process.

We identified improvements needed in the effectiveness and efficiency of the PER process. Specifically, we determined the process could be improved to assure CAPs were closed out timely by tracking those that were not approved within 30 calendar days of review by the Project Review Committee. Prior to the issuance of our report, Watts Bar Unit 2 issued a PER to address all CAP timeliness issues from a project-wide standpoint. We also identified an opportunity to improve the trending of PERs and recommended the Watts Bar Unit 2 QA Manager expand the trending analysis guidelines to include categorizing of PERs by level of importance and analyzing trends according to importance as well as quantity.

### Agreed-Upon Procedures Applied to 2011 Winning Performance Payouts

TVA's WP Incentive Plan is a performance management program designed to promote teamwork, focus on continued high performance, and motivate and reward employees for achieving strategic objectives

and critical success factors. The WP program is based on the principle that operational improvements, reduced costs, and improved revenues can be achieved by applying management focus and offering monetary incentives.

We applied four agreed-upon procedures requested solely to assist management in determining the validity of the WP payout awards for the year ended September 30, 2011.

In summary, we found:

- The FY 2011 WP goals were properly approved. Of the two change forms for FY 2011, the Chief Executive Officer approved one on August 15, 2011, and one on August 24, 2011. The two change forms affected 16 scorecards, which resulted in increases to payout.
- The actual year-to-date results for September 2011 for all measures on the Strategic Business Unit and Business Unit scorecards agreed with the respective supporting documentation provided.
- The actual year-to-date results for the two incentivized TVA Corporate balanced scorecard measures agreed with the underlying support. Subsequent changes to the





Shawnee Fossil Plant

Net Cash Flow actual year-to-date result were received as of November 7, 2011, and compared to the supporting Statement of Cash Flows. We determined there would be no impact to the payout percentage.

- The FY 2011 WP payout percentages were provided by the Performance Analysis and Productivity organization on October 21, 2011. Subsequent changes to actual data and goals were received through October 28, 2011. We recalculated the payout percentages based on those changes without exception. A subsequent change to the actual year-to-date result for the Net Cash Flow measure was received through November 7, 2011. This change did not impact any payout percentages.

### Coal Quality Adjustments

In coal contracts, there is a provision that adjustments to payments can occur if the quality of coal TVA receives differs from the quality of coal called for in the contract terms. Coal Quality Adjustment Reports (CQAR) are generated when the actual coal quality exceeds or does not meet the standards specified in the contract. The adjustments are based upon the quality content of moisture, ash, and/or sulfur as well as the coal's British Thermal Units. We reviewed the CQARs to determine if they were calculated in accordance with the terms of the contracts.

From October 2007 through May 2010, TVA processed 642 CQARs with net adjustments totaling about \$110 million. We assessed the accuracy of 18 CQARs representing about \$24.6 million, or 100 percent

of the total dollar adjustments exceeding \$1 million and processed during the period. Additionally, we tested the mathematical accuracy and compliance with contract terms of 35 CQARs whose dollar adjustments were less than \$1 million, totaling about \$16.3 million. In summary, we found that CQARs were calculated accurately.

### FY 2011 Financial Statement Audit

TVA contracted with the independent public accounting firm of Ernst & Young, LLP, to audit TVA's balance sheet as of September 30, 2011, and the related statements of income, changes in proprietary capital, and cash flows for the year. This also included the audit of TVA's internal controls over financial reporting as of FY end. The firm also reviewed TVA's FY 2011

interim financial information filed on Form 10-Q with the Securities and Exchange Commission. The contract required the work be performed in accordance with *Government Auditing Standards*. Our monitoring of this work disclosed no instances where the firm did not comply, in all material respects, with *Government Auditing Standards*.

## CONTRACT AUDITS

### Preaward Contract Reviews

To support TVA management in negotiating procurement actions, we completed four preaward reviews of cost proposals submitted by companies proposing to provide (1) engineering services for work at Bellefonte Unit 1, (2) indirect support services at Watts Bar, (3) a perimeter stabilization project for a TVA fossil plant, and (4) inspection services to support TVA's nuclear power program. Our audits identified \$6.2 million of potential savings opportunities for TVA to negotiate. The savings opportunities were primarily related to overstated wage rates and indirect cost recovery rates.

### Contract Compliance Reviews

During this semiannual period, we completed three compliance audits of contracts with expenditures totaling \$384 million and identified potential overbillings of

\$1.6 million. Highlights of our completed compliance audits follow.

- We audited \$67.9 million in costs billed to TVA by a contractor for providing modification, supplemental maintenance services, and technical support services at TVA nuclear plants. Our objective was to determine if the contractor had billed TVA in accordance with the contract terms and conditions. In summary, we found TVA had been overbilled \$1,229,401 as follows:
  - » \$714,288 was overbilled for subcontractor costs for the contractor's sister company. The overbilling included

(1) \$631,131 in unallowable craft labor costs and associated fees; (2) \$99,448 in costs not provided for in the subcontract; (3) \$7,489 in unsupported costs; and (4) a credit of \$23,780 for an invoice that was underpaid by TVA.

- » \$279,288 was overbilled for payroll tax costs on nonmanual employees. The contractor subsequently provided a \$279,288 refund for the overbilled payroll taxes.
- » \$225,463 was overbilled for labor costs including (1) \$190,804 in fringe benefit costs for nonmanual employees who did not

Watts Bar Dam





receive fringe benefits;  
(2) \$26,349 in unsupported  
and duplicate labor  
billings; and (3) \$8,310  
for nonmanual labor costs  
billed at incorrect markup  
rates.

- » \$10,362 was billed for  
ineligible fees applied to  
fitness for duty/badging  
costs.

➤ We audited the revenues paid  
and the costs billed to TVA  
by a contractor for providing  
fly ash management services  
at TVA's John Sevier Fossil  
Plant from July 1, 1999,  
through March 31, 2009.

The scope of our review  
included (1) the revenues to  
be provided by the contractor  
to TVA under one contract  
and (2) \$1,913,782 of costs  
the contractor billed under  
three other contracts. In  
summary, our review of the  
ash management payments  
and billings to TVA found  
the contractor underpaid or  
overbilled TVA \$378,818 as  
follows:

- » The contractor underpaid  
TVA \$83,323 for revenues  
and associated interest  
because the contractor did  
not pay TVA for all pyrite-  
free bottom ash it removed  
(and marketed) from John  
Sevier Fossil Plant.

- » The contractor overbilled  
TVA at least \$295,495 for  
daily ash management  
costs. The overbilling  
included \$16,000 of  
cost billed in excess of  
fixed annual billing rates  
and \$279,495 of excess  
excavation costs that  
were not supported by  
the contractor's records.  
The actual overbilling for  
the excess excavation  
costs is most likely higher  
because inventory records  
maintained by John Sevier  
Fossil Plant indicated the  
contractor's records were  
not accurate.

➤ We audited \$314.9 million  
a contractor billed to TVA  
for modifications and  
supplemental maintenance  
work at TVA fossil and  
hydro plants and other  
TVA-controlled facilities. In  
summary, we determined the  
contractor's billings to TVA  
complied with the terms of  
the contract except for  
\$3,783 in net overbillings of  
craft labor. The contractor  
agreed with our findings and  
plans to issue TVA a credit for  
the overbilled costs.

## IT AUDITS

During this semiannual period,  
we completed five audits in the  
IT environment pertaining to  
(1) FISMA; (2) data protection

controls for TVA PII/PHI held by  
two different vendors; (3) security  
controls for one TVA facility; and  
(4) TVA compliance with MTSA.

## 2011 FISMA Review Identified Needed Improvements

FISMA was meant to bolster  
computer and network security  
within the federal government.  
In accordance with FISMA and  
guidance from the Office of  
Management and Budget (OMB),  
TVA and the OIG are required  
to report on agency-wide IT  
security and privacy practices  
annually. In our 2011 review  
of TVA's information security  
program, we found that while  
TVA has made some progress  
in implementing the IT controls  
required by FISMA and work on  
some previously recommended  
actions continues, additional  
efforts are needed to strengthen  
compliance of TVA's security  
program with existing controls  
and address additional concerns.  
We identified opportunities  
to improve all control areas  
we reviewed except for TVA's  
programs for incident response  
and reporting and remote access  
management. In addition,  
we identified an opportunity  
for TVA to improve agency-  
wide security oversight. TVA  
management agreed with our  
findings and recommendations  
and is implementing remediation  
actions.



### **Data Protection Controls Were Generally Effective**

TVA contracts with vendors to provide employment-related services and, due to the nature of the contracted services, provides these vendors with information, which is classified either as PII or PHI. During this reporting period, we completed audits of the vendor who provides relocation services for TVA employees and the vendor who provides health management services for TVA employees and eligible retirees and their dependents. We audited the (1) security controls for protecting TVA data during transmission and processing and (2) adequacy of and compliance with TVA contract terms for security and data protection. In summary, we determined both vendors (1) had appropriate controls in place to

effectively protect PII/PHI during transmission and processing and (2) complied with the security terms included in the TVA contract. However, we identified control improvements for each of the vendors and TVA that, if implemented, would strengthen data protection controls. TVA management agreed with our findings and recommendations and is implementing the improvements.

### **IT General Controls for a Generating Facility Could Be Improved**

TVA has certain generating and transmission facilities that have been identified as critical assets using the criteria provided by the North American Electric Reliability Corporation and, as such, are subject to the Critical Infrastructure Protection

program. We performed an audit for one of these generating facilities to assess the adequacy of general, logical, and physical controls. We found weaknesses in each of the control areas tested during the audit. Unauthorized access originating from non-network resources, such as USB memory products, and leveraging the security weaknesses could allow a malicious attacker to cause unplanned outages and equipment damage. TVA management agreed with our findings and recommendations.

### **TVA Complied with the Maritime Transportation Security Act**

After the terrorist attacks on September 11, 2001, the MTSA was enacted. With the MTSA, a series of stringent



requirements were put in place for port authorities along with vessel and facility operators that report to the U.S. Department of Homeland Security (DHS). TVA has four port facilities that receive cargos that are regulated under the MTSA. We performed an audit to evaluate TVA's compliance with the MTSA. Although we found TVA is in compliance, we identified a few minor administrative issues and program improvements that should be corrected or implemented to improve TVA's operational efficiencies. TVA management agreed with our findings and recommendations for correcting the administrative issues and is implementing the improvements.

## CORPORATE GOVERNANCE AND FINANCE AUDITS

During this semiannual period, Corporate Governance and Finance Audits completed a mandated review of TVA's compliance with the IPIA and two audits of TVA distributors to determine compliance with key contract provisions.

### TVA FY 2011 Compliance with the Improper Payment Information Act of 2002

The OIG performed an audit of TVA's compliance with IPIA for FY 2011. In summary, we found TVA was in compliance

with IPIA requirements that were applicable to TVA. In our opinion, TVA was only required to comply with the IPIA requirement to conduct a program specific risk assessment.

TVA performed a risk assessment for FY 2011 and determined the primary program susceptible to improper payments is its supply chain programs. TVA calculated the total amount of payments subject to review as \$10,098,354,626. IPIA defines significant improper payments as \$10 million of all program activity payments and 2.5 percent of program outlays. TVA's improper payments totaled \$7,446,226 and 0.074 percent of program outlays. As a result, TVA's improper payments fell below IPIA threshold amounts. As of the date of its IPIA report, TVA reported it had recaptured \$6,524,681 of the total improper payments of \$7,446,226 identified for FY 2011.

### Distributor Audits

TVA sells power under the contracts it has established with 155 distributors—municipalities and cooperatives. These distributors resell TVA power to consumers across the Tennessee Valley. We audited the power contracts TVA had with two distributors to assess compliance with the contract provisions. The

key contract provisions included (1) proper reporting of electric sales, (2) nondiscrimination in providing power, and (3) use of electric revenue for approved purposes. The following describes the issues noted in our audits.

#### ➤ Use of Electric System Funds for Nonelectric Purposes

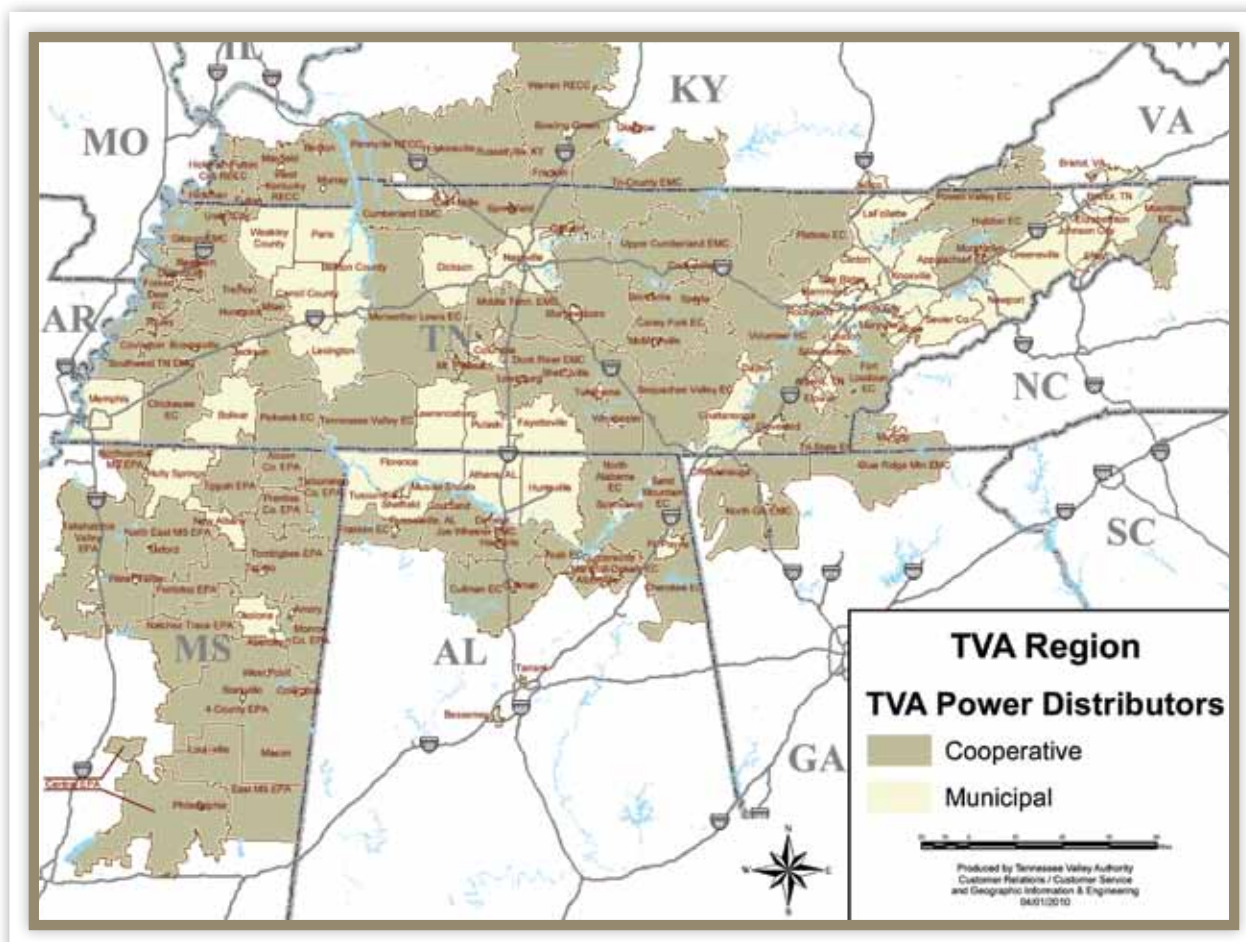
Both of the distributors reviewed used electric department funds for nonelectric purposes that were inconsistent with the provisions in the contracts with TVA.

#### ➤ Misclassifications

One of the distributors had misclassified certain commercial accounts because it had not used the classification criteria in the Wholesale Rate Schedule. Also, we noted instances where customers were not classified properly and similar customers were not classified the same at both distributors. The impact of these issues, where we had adequate information to estimate, was not significant.

#### ➤ Other Contract Requirements

The distributors were not complying with certain other contract requirements



including: (1) evaluation of customers for a demand meter; (2) determination of minimum bill amounts; (3) entering of contract demand values in the billing system; (4) cost allocations applied at one distributor for joint use of property and services not approved by TVA; and (5) contracts lacking for customers whose demand exceeded the threshold requirement for customer contracts.

#### ➤ Internal Controls

We noted an opportunity to help a distributor improve its internal control over customer classification and billing data.

We also identified three areas where TVA needed to improve its oversight of distributors. Specifically, we found TVA did not (1) prevent distributors' pledging of electric system funds as guarantees for customer economic development loans with Rural Development; (2) provide adequate guidance related to the due diligence process for cooperative distributors and, as a result, electric system funds were used to guarantee loans to customers from funds provided by Rural Development; and (3) review cooperative distributors' capital credit allocations during TVA's retail rate setting process. TVA management agreed

pledging electric funds is not allowed under the power contract and stated it plans to recommend formal approval by the TVA Board of a use of revenues policy. TVA also stated (1) it plans to educate distributors on the need to follow Rural Development guidelines, including appropriate due diligence; and (2) consideration of cooperative distributors' capital credit allocations is inherent in TVA's revised retail rate making and approval process.

A photograph of a nuclear power plant. In the background, there are two large, grey, cylindrical cooling towers and two smaller, white, dome-shaped containment structures. The foreground is filled with tall, golden-brown grass. The sky is a clear, solid blue. A white horizontal line runs across the middle of the image, separating the top blue sky from the bottom scene with the plant and grass.

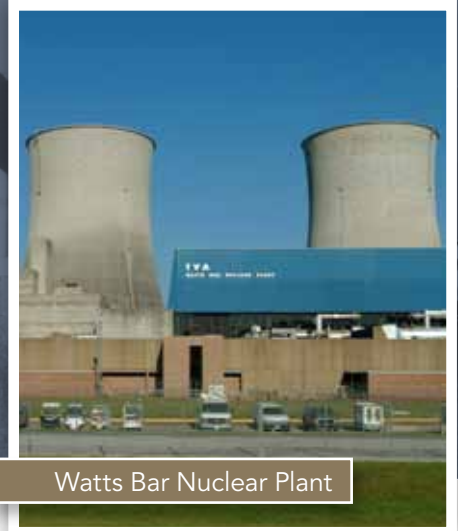
# REPRESENTATIVE EVALUATIONS

TVA OIG SEMIANNUAL REPORT



# Summary of REPRESENTATIVE EVALUATIONS

During this semiannual period, our Evaluations team conducted a review of TVA's Nuclear Power Group performance trends and found that while TVA had taken steps to improve the culture in the Nuclear Power Group, it could be further enhanced by addressing some concerns. More information on this review is below.



Watts Bar Nuclear Plant

## Nuclear Power Group's Performance Trends

This review was conducted because of the importance of TVA's nuclear operating performance to its ability to meet demand for power in the Valley. The review included identifying (1) performance trends based on the INPO reports, (2) major contributing factors affecting the performance trends, and (3) patterns of behavior that have an impact on culture. We reviewed INPO index data, an industry standard in trending nuclear performance, safety, and reliability for the years 2005 through 2010. We found that the Nuclear Power Group's performance with respect to the INPO index declined through 2007 but has shown improvement through 2010. The data showed planned and forced outages were major contributing factors to the changes in INPO performance. The majority of the unplanned outages appear to be a result of equipment

reliability issues. Factors contributing to performance improvement included a gap-based business plan and other new initiatives, including a focus on equipment reliability within the organization.

As part of this project, we reviewed the following elements of the Nuclear Power Group culture: (1) alignment, (2) progress, (3) standards, (4) accountability, and (5) attitude. We found management had taken actions that enhanced the alignment and progress of cultural elements. In the areas of (1) standards, (2) accountability, and (3) attitude, we noted that while management had taken some corrective actions, the culture could be further improved by addressing certain issues.

We recommended the Chief Nuclear Officer: (1) increase the focus on standards within the organization by (a) evaluating

the adequacy of standards as compared to industry, (b) clarifying the expectations and standards that everyone should follow, and (c) reinforcing those standards throughout the organization; (2) continue to promote the fleet mentality throughout the organization and consider input from the workforce when making decisions that would directly affect their work; (3) continue efforts to be proactive in identifying opportunities that would improve the organization; (4) work to build relationships and trust throughout Nuclear Power Group, which would encourage the workforce to embrace new initiatives, foster a fleet mentality, and increase their drive to perform; and (5) implement actions to improve the CAP to increase the workforce's reliance on the program. TVA management agreed with our findings and recommendations and is implementing corrective actions.



# REPRESENTATIVE INVESTIGATIONS

TVA OIG SEMIANNUAL REPORT



# Summary of REPRESENTATIVE INVESTIGATIONS

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This reporting period, our investigations produced four convictions, five indictments, and one pretrial diversion. Individuals were prosecuted in state and federal venues on various charges, such as workers' compensation fraud, mail and wire fraud, false statements, and theft. Additionally, one administrative investigation identified \$97 million spent on an unsuccessful nuclear power EPU project as well as \$26.5 million in incremental fuel costs and an estimated \$373 million in marginal costs for replacement power.

Other investigations garnered restitution, fines, and fees exceeding \$19,000. We opened 178 investigations and closed 202. Highlights of our investigative accomplishments follow.

## **Browns Ferry Nuclear Plant Extended Power Uprate Project Did Not Achieve Intended Benefits**

A power uprate was conceptualized during 1999 to increase the maximum operating level of Browns Ferry by 15 percent. The project, known as EPU, began during 2001 and was expected to be completed in two to four years based on industry-wide experience; however, the Browns Ferry project remains incomplete.

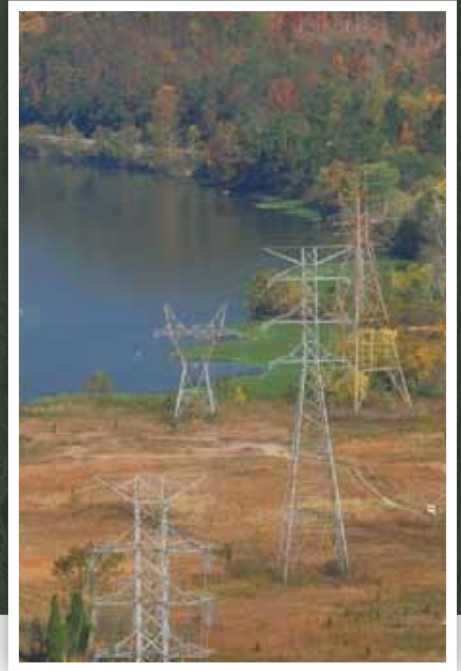
The OIG performed extensive inquiry at the request of current TVA management and

identified the primary causes for the continuing delays and cost overruns. The OIG concluded senior management's early decisions were the most significant factor in the lack of progress in the EPU project, including the following:

- In 2001, senior management directed staff to keep the EPU proposal within a certain cost, requiring the staff to report an artificially optimistic scope. Evidence indicates this resulted in the contractor proposing use of a methodology that was not approved by the NRC.
- In 2001, senior management ignored concerns TVA engineering staff raised related to the feasibility and safety of the proposed methodology.

- TVA's switch to AREVA fuel during the Blended Enriched Uranium Fuel project resulted in the NRC permanently rejecting Browns Ferry's attempted use of non-NRC approved methodology in August 2002.

From August 2002 through June 2004, Browns Ferry spent substantial financial and human resources repackaging the project-licensing application using an NRC-approved methodology. From 2004 through 2010, industry complexities beyond TVA's control made obtaining EPU licensure significantly more difficult. TVA failed to manage the complications successfully, though five other reactors at four non-TVA plants achieved similar EPUs during this same time period.





TVA spent about \$97 million on direct EPU costs and \$26.5 million on incremental fuel costs since 2001. Additionally, TVA's marginal costs for replacement power ranged from \$373 million to \$448 million as a result of not achieving the EPU by the targeted dates.

TVA executive management acknowledged the cultural issues that may still exist and stated they are committed to improving the culture of TVA through transformation initiatives and other actions including creating and maintaining an environment where all employees feel comfortable raising concerns to management or through any of the multiple available avenues.

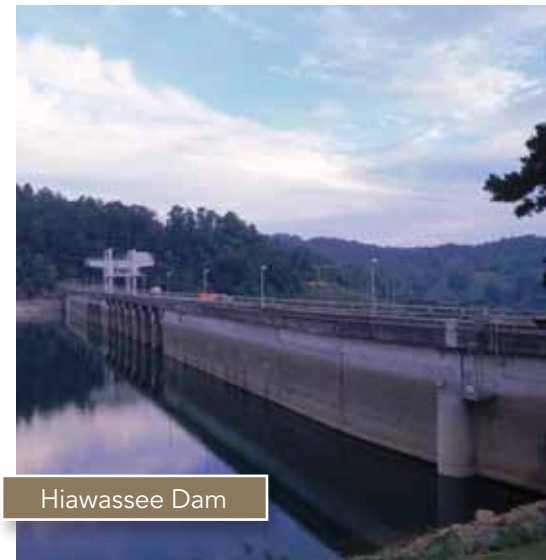
### Two Nuclear Contractor Employees Sentenced for Falsification of Quality Control Documents

Prior to this reporting period, a contractor electrician was charged in federal court with two felony counts of knowingly making written, material false statements within the jurisdiction of a federal agency and pled guilty to one count of the indictment. The electrician had been assigned to inspect and measure cables that were to carry energy to systems inside the containment area, including safety equipment, at Watts Bar Unit 2. His plea agreement stipulated he attested

to completing microreadings of the cables when he had not. (Approximately 200 such entries were submitted that were either inaccurate or were provided for measurements of cables that did not exist.) As a result of his plea, the electrician was sentenced to 100 hours of community service and two years of probation.

"Falsifying work records is a serious federal offense that could ultimately affect public safety. We are pleased that TVA was able to uncover this matter through their system of checks and balances involving the startup of this nuclear facility," said U.S. Attorney William C. (Bill) Killian, Eastern District of Tennessee.

The contractor's supervisor, also a contractor electrician, was charged with and pled guilty to one count of the same federal statute. His plea stipulated the subordinate came to him admitting micrometer measurements had not been done at the time the job should have been completed. The supervisor then directed the subordinate to enter micrometer measurements onto quality control forms. After the fabricated entries were complete, the supervisor executed a work closure form falsely certifying the work had been done when he knew it had not. The supervisor recently



Hiawassee Dam

was sentenced to 100 hours of community service and two years of probation.

### Investigation Results in Sentencing for False Statements Related to Clean Water Action Violations

We previously reported an investigation of a Niota, Tennessee, sewage-treatment plant operator/employee who pled guilty to 12 counts of a 72-count indictment charging him with violating the Clean Water Act. According to the indictment, the employee falsified chlorine records and discharge-monitoring reports over a two-year period, affirming wastewater was chlorinated at correct levels when, in fact, nondisinfected wastewater was discharged into the Little North Mouse Creek (a tributary of the Hiawassee River and part of the Tennessee River Watershed management area). The individual has been sentenced

to six months of imprisonment, six months of home detention, two years of probation, and 150 hours of community service. (We participated in this investigation as members of the Environmental Crimes Joint Task Force, Eastern District of Tennessee.)

U.S. Attorney Killian commented, “By falsifying the reports and claiming that he was properly disinfecting the waste water prior to its discharge, [this individual] potentially put others at risk for coming in contact with microbial organisms that could cause serious illnesses and diseases. This prosecution and sentence sends a clear message that those who would undermine our federal programs intended to protect human health and the

environment by falsifying reports will be vigorously prosecuted.”

### **Former Utility President and Two Contractors Indicted in Kickback Scheme**

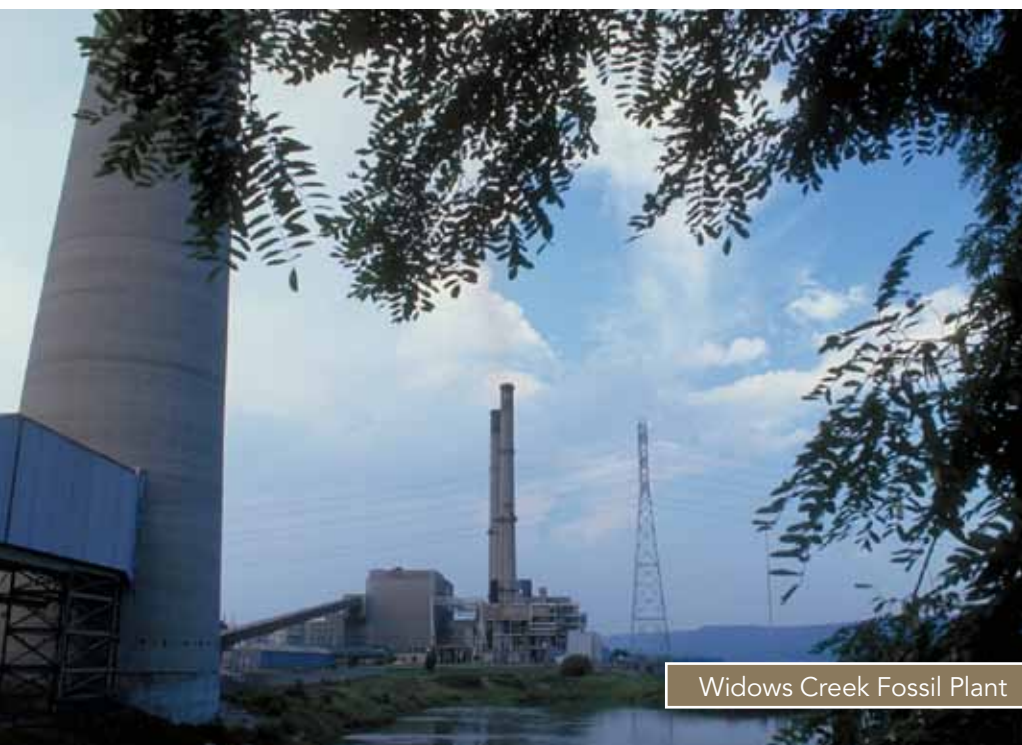
Our investigation resulted in three individuals indicted in federal court in the Middle District of Tennessee, charged with a combined total of 72 counts of wire and mail fraud. The indictment alleged that, during a nine-month stint as president of a middle Tennessee electric utility company, an individual approved no-bid consulting work for various projects purportedly performed by a father and son who owned separate consulting businesses. The indictment alleged that in exchange for work totaling \$156,139.39, the younger

contractor paid \$51,500 to the former president over a six-month period, including \$40,000 to a commercial debt-recovery firm to reduce the former president’s personal debt; and the elder contractor issued checks totaling \$16,015 to the former president in exchange for work billed to the utility totaling \$32,150 over a period of seven months. (The utility requested our investigation and cooperated fully with our inquiry.)

### **Federal Criminal Information Charges Tennessee Resident With Ponzi Scheme**

A Tennessee small-business owner who held various positions of trust in his community and political party is charged in a 13-count information with money laundering and bank, wire, and mail fraud, in the Middle District of Tennessee. The information states the individual knowingly wrote numerous worthless checks and collected more than \$16 million from investors to pay other investors and to finance a lifestyle of gambling and debt.

The information alleged the individual used his reputation to gain investors in three bogus enterprises—a farm-machinery supply company, a construction company created to build local greenways, and the “TVA Coal Ash Cleanup Investment,” which garnered the greatest dollar loss to investors. It is alleged he



Widows Creek Fossil Plant





Browns Ferry Nuclear Plant

deceived investors into believing their funds were being used by the Tennessee Emergency Management Agency to clean up the coal ash spill at TVA's Kingston Fossil Plant; and, toward that end, he produced forged work orders and other faked documentation. The OIG and Internal Revenue Service Criminal Investigation Division with assistance of other federal,

state, and local agencies worked this investigation.

#### **Deceased Office of Workers' Compensation Program Recipient's Checks Fraudulently Cashed**

We were informed the family of a former TVA employee who received total disability benefits from the Office of Workers' Compensation Program (OWCP)

failed to notify OWCP or TVA the former employee died, so her benefit checks continued to be mailed. Our investigation found the OWCP recipient's adult daughter received and deposited OWCP checks, which totaled \$14,939, after her mother's death. The deceased's brother, serving as executor of the estate, endorsed some of the checks and assisted in the daughter's bank deposits. The U.S. Attorney's Office declined prosecution in favor of available administrative remedies.

We forwarded our findings to OWCP, which corresponded with the executor about the questioned amount. Although the executor claimed his actions were legitimate, OWCP did not agree and formally notified the executor he must repay the full amount.

#### **TVA Reimbursed for Former Employee's Abuse of Time, Leave, and Per Diem**

We investigated allegations an employee was paid for hours not worked, and we found the individual was absent from work without approved leave for four days during a 6-day vacation and an 11-day private school excursion unrelated to the employee's official TVA duties. In addition, the employee claimed per diem and mileage reimbursement from TVA for

expenses related to personal travel during this period. The employee's position at TVA was scheduled to end due to lack of work; however, as a result of our inquiry, the individual was issued warnings from TVA management and suspended with pay for the remaining days employed. TVA recovered the cost of the unapproved leave and illegitimate travel expenses (\$2,490) from the employee's annual leave balance. Additionally, the OIG requested Personnel Security take the results of this investigation into account should the individual seek future TVA employment. (The U.S. Attorney's Office in the Eastern District of Arkansas declined prosecution in this case.)

### **Management Services Company and Owner Debarred Through 2012**

A corporation directly contracting with TVA engaged a subcontractor company to provide management services, including distributing TVA funds over various divisions of the corporation. During the course of our investigation of the management services subcontractor, we discovered the corporation had audited the subcontractor and found its owner had taken more than \$137,000 from its account, which was funded by deposits from TVA. The subcontractor

company's owner pled guilty to theft of property in connection with this activity. We reported our findings to TVA Supply Chain, which acted to debar the management services company and its owner from receiving federal contracts through December 31, 2012.

### **Investigation Leads to TVA-Wide Process Improvement**

We investigated an allegation that a TVA employee was engaged in an unreported personal consulting business that conflicted with his TVA duties. The conflict of interest was not substantiated because he had reported his outside employment according to a subsection of TVA's Standard Programs and Processes (SPP) entitled "Business Ethics," and had completed TVA's "Request for Approval of Outside Employment or Consulting Work," which was signed by his immediate supervisor.

In discussing the investigation with the Vice President of the employee's organization, a question arose about the level of guidance in TVA's Business Ethics SPP and approvals required on the request form. The Vice President had a PER issued to examine TVA's process for approval of outside employment. As a result, the following changes were made.

- A new, TVA-wide, fully detailed SPP, "Outside Employment," was issued dealing solely with outside employment activities of TVA employees. This SPP is available to employees online.
- Approvals for outside employment were expanded and clearly defined to include the supervisor through the organization's officer (Vice President or above). After forms are completed, they are required to be sent to and maintained by TVA's Ethics Program staff, which will serve as the central repository for the forms.
- Employees must now submit a new request at least once every three years or when necessitated by a change of duties or other factors. The Ethics Program staff will request updated forms every three years.
- The outside employment form was revised to include a description of any relationships that the outside employer or organization has with TVA, including any secondary relationships (for example, an outside employer who has a relationship with a contractor doing business with TVA).





# LEGISLATION *&* REGULATIONS

TVA OIG SEMIANNUAL REPORT



# LEGISLATION & REGULATIONS

In fulfilling its responsibilities under the IG Act of 1978, as amended, the OIG follows and reviews existing and proposed legislation and regulations that relate to the mandate, operations, and programs of TVA. Although TVA's Office of the General Counsel reviews proposed or enacted legislation that could affect TVA activities, the OIG independently follows and reviews proposed legislation that affects the OIG and/or relates to economy and efficiency or waste, fraud, and abuse of TVA programs or operations.



John Sevier Dam

## BILLS INTRODUCED SINCE THE PREVIOUS SEMIANNUAL PERIOD

The TVA OIG has been tracking the following major pieces of legislation:

### S 2105 – CYBERSECURITY ACT OF 2012

Senator Lieberman, I-CT, introduced this bill on February 14, 2012, which has had hearings held before the Committee on Homeland Security and Government Affairs. Among other things, the bill sets requirements for securing critical infrastructure as well as directs the Secretary of DHS, in consultation with owners and operators of critical infrastructure, the Critical Infrastructure Partnership Advisory Council, and other federal agencies and private

sector entities to: assess cybersecurity risks; develop risk-based cybersecurity performance requirements; implement cyber response and restoration plans; and more. The bill defines “critical infrastructure;” amends FISMA to revise information security requirements for federal agencies; and amends the Homeland Security Act of 2002 to consolidate existing DHS resources for cybersecurity within a National Center for Cybersecurity and Communications (NCCC), which the bill establishes (as does Senator Lieberman’s bill: S 413 – Cybersecurity Act of 2011, listed on page 49).

The Council of the Inspectors General on Integrity and Efficiency (CIGIE) has recommended the following changes to the bill: (1) maintain

the current criteria in FISMA for conducting IG evaluations and change the requirement in the bill for IGs to include a “conclusion” regarding the effectiveness of agency information security practices to require an “assessment” thereof; (2) maintain the current FISMA provision that allows evaluations to be based upon audits, evaluations, or reports, rather than restricting the IGs to perform one evaluation for the purpose of this bill; (3) include a statutory Freedom of Information Act exemption for information and information systems; and (4) require the U.S. Government Accountability Office instead of CIGIE to establish specific technical guidance for information security program evaluations.



## S 2151 – STRENGTHENING AND ENHANCING CYBERSECURITY BY RESEARCH, EDUCATION, INFORMATION, AND TECHNOLOGY ACT OF 2012 (SECURE IT)

Senator McCain, R-AZ, introduced this bill, co-sponsored by six additional senators, on February 29, 2012, and it has since had hearings held before the Committee on Commerce, Science, and Transportation.

The bill, among other things, (1) authorizes private entities to employ countermeasures and use cybersecurity systems to obtain, identify, or possess cyber threat information on its own networks or the networks of another entity with such entity's authorization; (2) allows private entities, nonfederal government agencies, and state, tribal, and local governments to voluntarily disclose cyber threat information to designated cybersecurity centers or to each other to assist

with preventing, investigating, or mitigating threats to information security; (3) requires federal contractors of electronic communication, remote computing, or cybersecurity services to immediately provide the contracting agency with any cyber threat information directly related to the contract and permits contractors to also provide such information to a cybersecurity center; (4) directs federal agencies receiving such contractor-provided information to disclose it immediately to a cybersecurity center; (5) permits cyber threat information provided to a cybersecurity center to be disclosed to, or used by, the federal government for a cybersecurity or national security purpose or to prevent, investigate, or prosecute various criminal offenses for which law enforcement officials are authorized, under existing law, to seek a court order authorizing an interception of wire, oral, or electronic communications; (6) prohibits federal, state, tribal, and local agencies from directly using such information to regulate an entity's lawful activities and sets forth conditions with regard to information provided to a cybersecurity center; and (7) provides legal protections to entities engaged in authorized cybersecurity activities and directs the Director of National Intelligence and Secretary of





Defense to develop policies and procedures.

### **HR 4263 – STRENGTHENING AND ENHANCING CYBERSECURITY BY USING RESEARCH, EDUCATION, INFORMATION, AND TECHNOLOGY ACT OF 2012 (SECURE IT)**

Congresswoman Mary Bono Mack (R-CA) and Congresswoman Marsha Blackburn (R-TN), introduced a bill on March 27, 2012, that mirrors S 2151. Notably, the Bono Mack-Blackburn bill also removes the legal roadblocks for companies to take vital necessary steps to protect their networks from cyber assaults and strengthens criminal penalties for hacking into servers. The bill has been referred to the Committee on Science, Space, and Technology and in addition to the Committees on Oversight and Government Reform, the Judiciary, Armed Services, and Intelligence (Permanent Select).

### **BILLS LISTED IN THE PREVIOUS SEMIANNUAL**

The following bills have been described in the previous semiannual report and their statuses have not changed.

### **HR 209 – REDUCING INFORMATION CONTROL DESIGNATIONS ACT**

The purpose of the bill is to increase governmentwide



information sharing and availability of information to the public by reducing and minimizing information control designations. The bill further requires the IG of each federal agency to randomly audit unclassified information with information control designations.

### **S 241 – NON-FEDERAL EMPLOYEE WHISTLEBLOWER PROTECTION ACT OF 2011**

The bill replaces provisions prohibiting reprisals against whistleblower employees of government contractors for disclosing to a federal official information relating to gross mismanagement, waste, danger to safety, abuse of authority, or violation of law related to an agency contract, subcontract, or grant. The bill also provides the complainant access to the IG's investigative file.

### **S 300 – GOVERNMENT CHARGE CARD ABUSE PREVENTION ACT OF 2011**

This bill requires (1) agencies to increase regulations and enforcement to safeguard government purchase card expenditures and (2) agency IGs to report to OMB semiannually on violations of this Act if the agency incurs more than \$10 million in purchase card or convenience check spending and to conduct periodic assessments of purchase card or convenience check programs.

### **S 413 – CYBERSECURITY AND INTERNET FREEDOM ACT OF 2011**

Among other things, the bill prohibits the government from turning off the Internet, establishes an Office of Cyberspace Policy, establishes NCCC within DHS, establishes United States Computer Emergency Readiness Team



TVA Electric Car

within the NCCC, and establishes a Federal Information Security Taskforce, which shall be the principal interagency forum for collaboration regarding best practices for agency information security. The bill requires IGs to assess the adequacy and effectiveness of the information security program.

#### **HR 1136 – EXECUTIVE CYBERSPACE COORDINATION ACT OF 2010**

This bill establishes a National Office of Cyberspace with oversight responsibilities for information security policies and practices. The annual audit required by this bill shall be performed by the agency's IG or by an independent external

auditor, as determined by the IG of the agency.

#### **S 717 – PUBLIC ONLINE INFORMATION ACT OF 2011 HR 1349 – PUBLIC ONLINE INFORMATION ACT OF 2011**

These companion bills establish a Public Online Information Advisory Committee to coordinate the government's efforts to make information from all three branches of government available on the Internet and to issue and update nonbinding guidelines on how the government should make public information available. The bills also provide that the IG of each agency will conduct periodic reviews regarding agency compliance with Internet publication requirements.

#### **S 743 – WHISTLEBLOWER PROTECTION ENHANCEMENT ACT OF 2011**

This bill expands the types of disclosures that are protected whistleblower disclosures and amends the IG Act of 1978 to allow federal agency employees to report to the IG information of an urgent concern to Congress and to provide for the appointment of a Whistleblower Protection Ombudsman in the OIG to educate agency personnel about whistleblower rights.

#### **HR 1875 – BUILDING OUR CLEAN ENERGY FUTURE NOW ACT**

This bill provides grants for the use of clean fuel in public transportation vehicles, provides federal employees with a fringe benefit for using public transit, and requires public utilities to develop a plan to support plug-in hybrid and electric vehicles.

#### **S 1030 – FREEDOM FROM RESTRICTIVE EXCESSION EXECUTIVE DEMANDS AND ONEROUS MANDATES ACT OF 2011**

This bill requires federal agencies to periodically review agency rules that have a significant adverse economic impact on small entities (small businesses, organizations, and governmental jurisdictions). Compliance guidance provided to these small

entities is also reviewed. Such reviews are to be conducted every nine years. Compliance will be reviewed by the agency's IG, who will report uncorrected deficiencies to Congress.

### **S 1212 – GEOLOCATIONAL PRIVACY AND SURVEILLANCE ACT**

This bill generally prohibits intercepting the geolocation information of another person. Examples of exceptions include emergency situations, prior consent, and by warrant. Penalties for violations are included and persons whose geolocation information is improperly obtained or used may recover civil damages.

### **S 1246 – ACT TO REDUCE THE NUMBER OF NON-ESSENTIAL NEW VEHICLES PURCHASED AND LEASED BY THE FEDERAL GOVERNMENT**

This bill requires agencies to determine the number and cost of nontactical and civilian vehicles purchased or leased in 2010. Agency budgets for 2012 will then be reduced by 20 percent of the total 2010 cost for such vehicles. The money saved will be returned to the Treasury. The bill also requires agency IGs to review the agency's system for monitoring the nonofficial use of government vehicles. Once the review is complete, the results will be reported to Congress.



### **S 1338 – REGULATOR CAPTURE ACT OF 2011**

This bill creates the Office of Regulatory Integrity within the OMB to be headed by an Administrator. The Administrator is tasked with investigating the influence of concentrated economic interests on agencies, which results in actions or regulations that do not advance the goals of the agency or causes the public to lose confidence in the agency regulatory process. The Administrator may coordinate investigative efforts with the agency IG.

### **S 1409 – IMPROPER PAYMENT ELIMINATION AND RECOVERY ACT**

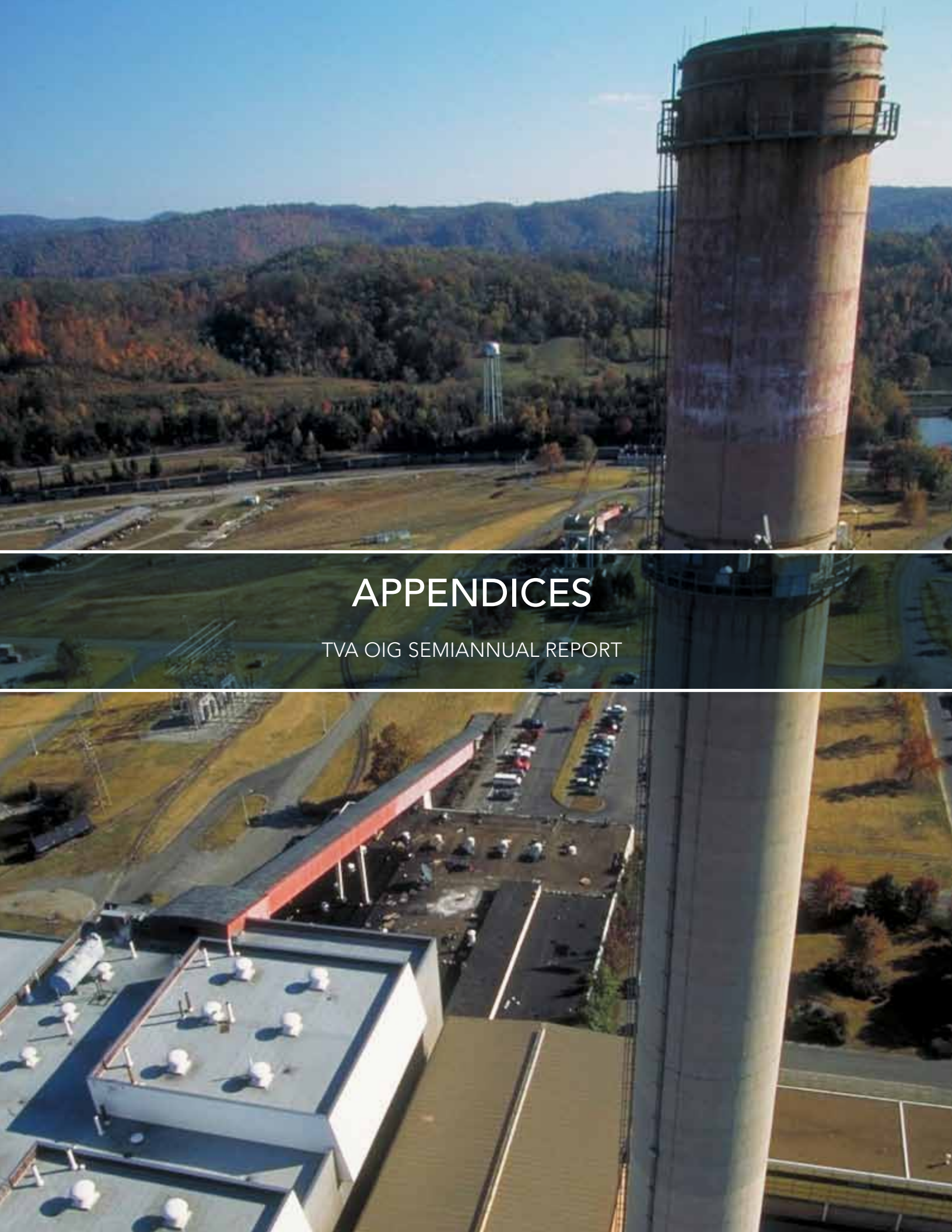
This bill attempts to identify, reduce, and recover payments made by the federal government in error or because of fraud. The bill tasks the Director of OMB to

identify federal spending that is highly susceptible to improper payments. Under this bill, each agency will report any high-dollar, improper payments to the agency's IG on a quarterly basis.

### **HR 2340 – TRANSPARENCY IN GOVERNMENT ACT**

The primary purpose of the bill is to create more transparency in Congress. However, Section V amends the Federal Funding and Accountability Act of 2006 by requiring IGs to periodically audit the data provided to the OMB Web site, [www.usaspending.gov](http://www.usaspending.gov), which provides information about entities receiving federal funds.





# APPENDICES

TVA OIG SEMIANNUAL REPORT

## INDEX OF REPORTING REQUIREMENTS UNDER THE INSPECTOR GENERAL ACT

REPORTING	REQUIREMENT	PAGE
Section 4(a)(2)	Review of Legislation and Regulations	47-51
Section 5(a)(1)	Significant Problems, Abuses, and Deficiencies	29-45
Section 5(a)(2)	Recommendations With Respect to Significant Problems, Abuses, and Deficiencies	29-45
Section 5(a)(3)	Recommendations Described in Previous Semiannual Reports in Which Corrective Action Has Not Been Completed	Appendix 4
Section 5(a)(4)	Matters Referred to Prosecutive Authorities and the Prosecutions and Convictions That Have Resulted	Appendix 5
Section 5(a)(5) and 6(b)(2)	Summary of Instances Where Information Was Refused	None
Section 5(a)(6)	Listing of Audit and Evaluation Reports	Appendix 2
Section 5(a)(7)	Summary of Particularly Significant Reports	29-45
Section 5(a)(8)	Status of Management Decisions for Audit and Evaluation Reports Containing Questioned Costs	Appendix 3
Section 5(a)(9)	Status of Management Decisions for Audit and Evaluation Reports Containing Recommendations That Funds Be Put to Better Use	Appendix 3
Section 5(a)(10)	Summary of Audit and Evaluation Reports Issued Prior to the Beginning of the Reporting Period for Which No Management Decision Has Been Made	None
Section 5(a)(11)	Significant Revised Management Decisions	None
Section 5(a)(12)	Significant Management Decisions With Which the Inspector General Disagreed	None
Section 5(a)(13)	Information under Federal Financial Management Improvement Act of 1996	None
Section 5(a)(14)	Appendix of results of any peer review conducted by another Office of the Inspector General during the reporting period and, if none, a statement of the date of the last peer review	Appendix 8
Section 5(a)(15)	List of outstanding recommendations from any peer review conducted by another Office of the Inspector General, including a statement describing the status of the implementation and why implementation is not complete	None
Section 5(a)(16)	List of peer reviews conducted of another Office of the Inspector General during the reporting period, including a list of any outstanding recommendations made from any previous peer review that remain outstanding or have not been implemented	None

## APPENDIX 2

### OIG AUDIT REPORTS • ISSUED DURING THE SIX-MONTH PERIOD ENDED MARCH 31, 2012

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
<b>CONTRACT AUDITS</b>				
2009-12389 10/04/2011	Appalachian Products, Inc. – Ash Management at John Sevier Fossil Plant	\$378,818	\$279,495	\$0
2010-13281 12/08/2011	G-UB-MK Constructors	\$3,783	\$3,783	\$0
2011-14222-1 12/12/2011	Proposal to Provide Indirect Support Services	\$0	\$0	\$94,000
2011-14305 12/15/2011	Review of Cost Recovery Rates for Engineering Services	\$0	\$0	\$3,076,000
2009-12779 01/12/2012	Williams Plant Services, LLC	\$1,229,401	\$7,489	\$0
2011-14155 02/08/2012	Review Request for Rate Increases for Contract Extension	\$0	\$0	\$859,000
2011-14360 02/29/2012	Review of Overhead Rate for Contract Extension	\$0	\$0	\$2,200,000
<b>CORPORATE GOVERNANCE AND FINANCE AUDITS</b>				
2011-14340 03/13/2012	Review of TVA's Compliance with IPFA FY 2011	\$0	\$0	\$0
2010-13285 11/16/2011	Distributor Audit of Volunteer Energy Cooperative	\$0	\$0	\$0
2010-13659 03/22/2012	Distributor Audit of Meriwether Lewis Electric Cooperative	\$0	\$0	\$0
<b>OPERATIONAL AUDITS</b>				
2010-13295 11/15/2011	Effectiveness of TVA's Budget Process	\$0	\$0	\$0
2010-13656 12/20/2011	Review of TVA Demurrage Costs	\$3,498,207	\$0	\$472,600
2010-13264 01/10/2012	Review of the Effectiveness of the Remediation of Problem Evaluation Reports at Watts Bar Unit 2	\$0	\$0	\$0
2010-13662 02/23/2012	Review of Coal Quality Adjustment Reports	\$0	\$0	\$0
2011-14236 11/10/2011	Agreed-Upon Procedures for TVA Fiscal Year 2011 Performance Measures	\$0	\$0	\$0
<b>INFORMATION TECHNOLOGY AUDITS</b>				
2011-13747 11/04/2011	Controls for Handling TVA Private Information – ActiveHealth Management	\$0	\$0	\$0
2011-13760 11/17/2011	Federal Information Security Management Act Evaluation	\$0	\$0	\$0
2011-13721 11/29/2011	Controls for Handling TVA Private Information – Cartus Corporation	\$0	\$0	\$0
2010-13671 12/15/2011	TVA Generating Plant – Security Assessment	\$0	\$0	\$0
2011-14066 01/20/2012	TVA Maritime Transportation Security Act Compliance	\$0	\$0	\$0
<b>TOTAL AUDITS (20)</b>		<b>\$5,110,209<sup>1</sup></b>	<b>\$290,767</b>	<b>\$6,701,600</b>

<sup>1</sup> Questioned costs include \$2,085,440 for unreasonable or unnecessary expenditures not recoverable.



## OIG EVALUATION REPORTS • ISSUED DURING THE SIX-MONTH PERIOD ENDED MARCH 31, 2012

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
2010-13233 12/08/2011	Review of Nuclear Power Group’s Performance Trends	\$0	\$0	\$0
TOTAL EVALUATIONS (1)		\$0	\$0	\$0

**Note:** A summary of, or link to, the full report may be found on the OIG’s Web site at [www.oig.tva.gov](http://www.oig.tva.gov).



Allen Fossil Plant

## APPENDIX 3

TABLE I • TOTAL QUESTIONED AND UNSUPPORTED COSTS • AUDITS

Audit Reports	Number of Reports	Questioned Costs	Unsupported Costs
A. For which no management decision has been made by the commencement of the period	1	\$640,420	\$640,420
B. Which were issued during the reporting period	4	\$5,110,209	\$290,767
Subtotal (A+B)	5	\$5,750,629	\$931,187
C. For which a management decision was made during the reporting period	5 <sup>1</sup>	\$5,750,629	\$931,187
1. Dollar value of disallowed costs	5	\$5,695,122	\$931,187
2. Dollar value of costs not disallowed	1	\$55,507	\$0
D. For which no management decision has been made by the end of the reporting period	0	\$0	\$0
E. For which no management decision was made within six months of issuance	0	\$0	\$0

<sup>1</sup> The total number of reports for which a management decision was made during the reporting period differs from the sum of C(1) and C(2) when the same report(s) contain both recommendations agreed to by management and others not agreed to by management.

TABLE I • TOTAL QUESTIONED AND UNSUPPORTED COSTS • EVALUATIONS

Evaluation Reports	Number of Reports	Questioned Costs	Unsupported Costs
A. For which no management decision has been made by the commencement of the period	0	\$0	\$0
B. Which were issued during the reporting period	0	\$0	\$0
Subtotal (A+B)	0	\$0	\$0
C. For which a management decision was made during the reporting period	0	\$0	\$0
1. Dollar value of disallowed costs	0	\$0	\$0
2. Dollar value of costs not disallowed	0	\$0	\$0
D. For which no management decision has been made by the end of the reporting period	0	\$0	\$0
E. For which no management decision was made within six months of issuance	0	\$0	\$0

TABLE II • FUNDS TO BE PUT TO BETTER USE • AUDITS

Audit Reports	Number of Reports	Funds To Be Put To Better Use
A. For which no management decision has been made by the commencement of the period	2	\$3,782,900
B. Which were issued during the reporting period	5	\$6,701,600
Subtotal (A+B)	7	\$10,484,500
C. For which a management decision was made during the reporting period	6 <sup>1</sup>	\$9,625,500
1. Dollar value of recommendations agreed to by management	6	\$9,558,234
2. Dollar value of recommendations not agreed to by management	1	\$67,266
D. For which no management decision has been made by the end of the reporting period	1	\$859,000
E. For which no management decision was made within six months of issuance	0	\$0

<sup>1</sup> The total number of reports for which a management decision was made during the reporting period differs from the sum of C(1) and C(2) when the same report(s) contain both recommendations agreed to by management and others not agreed to by management.

TABLE II • FUNDS TO BE PUT TO BETTER USE • EVALUATIONS

Evaluation Reports	Number of Reports	Funds To Be Put To Better Use
A. For which no management decision has been made by the commencement of the period	0	\$0
B. Which were issued during the reporting period	0	\$0
Subtotal (A+B)	0	\$0
C. For which a management decision was made during the reporting period	0	\$0
1. Dollar value of recommendations agreed to by management	0	\$0
2. Dollar value of recommendations not agreed to by management	0	\$0
D. For which no management decision has been made by the end of the reporting period	0	\$0
E. For which no management decision was made within six months of issuance	0	\$0



## APPENDIX 4

### AUDIT AND EVALUATION REPORTS WITH CORRECTIVE ACTIONS PENDING

As of the end of the semiannual period, final corrective actions associated with seven audits and four evaluations were not completed within twelve months of the final report date. Presented below for each audit and evaluation are the report number, date, and a brief description of the open recommendations as well as the date management expects to complete final action.

Audit Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2007-11216 06/02/2008	<b>Review of TVA Actions to Protect Social Security Numbers and Eliminate Their Unnecessary Use</b> TVA agreed to implement protective measures for applications and reports containing social security numbers, such as restricting access and logging downloads. Management expects final action to be completed by May 31, 2013.
2007-11388 08/21/2008	<b>Sequoyah Nuclear Plant – Cyber Security Assessment</b> TVA agreed to conduct risk assessments on the use of identified third-party applications and evaluate the elimination of clear text protocols where technically feasible. Management expects final action to be completed by August 30, 2012.
2008-12127 09/24/2009	<b>Hydroelectric Plant Automation – General, Physical, and Security Controls Review</b> TVA agreed to implement the new access control system at all sites and further restrict access to key components. Management expects final action to be completed by June 1, 2013.
2009-12650 05/19/2010	<b>Use and Protection of Personally Identifiable Information</b> TVA agreed to improve the privacy program by (1) defining security officer responsibilities and (2) updating the privacy assessment process. Management expects final action to be completed by September 30, 2012.
2010-13033 10/12/2010	<b>Effectiveness of Cyber Security Monitoring Follow-up Review</b> TVA agreed to perform a risk assessment of TVA's intrusion detection/prevention system device implementation. Management expects final action to be completed by November 30, 2012.
2010-13446 12/02/2010	<b>Federal Information Security Management Act Evaluation</b> TVA agreed to continue the redesign of the certification and accreditation process and complete security configuration baselines. Management expects final action to be completed by August 30, 2012.
2009-12699 12/09/2010	<b>Follow-up Review of TVA's Role as a Rate Regulator – Use of Electric Revenues for Nonelectric Purposes</b> TVA agreed to (1) determine when distributor reserves become excessive and should be returned to the ratepayers in the form of rate reductions and (2) review and ensure all distributors using electric system revenues for nonelectric system purposes have appropriate protections in place. TVA distributor staff will look for electric system use of revenue for nonelectric system purposes when they perform their annual review of distributor financial information. As part of this review, any unapproved use of electric system revenues for nonelectric system purposes will be evaluated for further action. Management expects final action to be completed by September 30, 2012.

## AUDIT AND EVALUATION REPORTS WITH CORRECTIVE ACTIONS PENDING (CONTINUED)

Evaluation Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2005-5181 08/31/2005	<b>Review of Physical and Environmental Controls for the Chattanooga Data Center</b> TVA agreed to replace the Chattanooga office complex telephone system with a system operating on the Internet Protocol to eliminate three specific failure modes, which could hamper or eliminate TVA's communication ability. Implementation of the new communication system has been delayed by management due to what is considered higher priority projects. Management is targeting final action to be completed by December 31, 2012.
2008-12007 05/13/2009	<b>Distributor Review of Monroe County Electric Power Authority</b> TVA agreed to (1) consider feasibility of a comprehensive guideline for permissible expenditures; and (2) recommend to the Board that additional financial metrics, including when cash reserves become excessive, be implemented in the rate setting process. Management expects final action to be completed by April 30, 2012.
2008-12040 05/13/2009	<b>Distributor Review of Lewisburg Electric System</b> TVA agreed to (1) consider feasibility of a comprehensive guideline for permissible expenditures; and (2) recommend to the Board that additional financial metrics, including when cash reserves become excessive, be implemented in the rate setting process. Management expects final action to be completed by April 30, 2012.
2008-11829 06/02/2010	<b>Review of TVA Records Retention</b> TVA agreed to continue with current plans to replace the Electronic Document Management System. Management expects final action to be completed by December 31, 2013.

## APPENDIX 5

### INVESTIGATIVE REFERRALS AND PROSECUTIVE RESULTS<sup>1</sup>

Referrals	
Subjects Referred to U.S. Attorneys	14
Subjects Referred to State/Local Authorities	1
Results	
Subject Indicted	5
Subjects Convicted	4
Pretrial Diversion	1
Referrals Declined	8

<sup>1</sup> These numbers include task force activities and joint investigations with other agencies.



## HIGHLIGHTS – STATISTICS

	MAR 31, 2012	SEPT 30, 2011	MAR 31, 2011	SEPT 30, 2010	MAR 31, 2010
<b>AUDITS</b>					
<b>AUDIT STATISTICS</b>					
Carried Forward	34	46	40	60	44
Started	23	16	29	28	46
Canceled	(2)	(2)	(3)	(7)	(4)
Completed	(20)	(26)	(20)	(41)	(26)
In Progress at End of Reporting Period	35	34	46	40	60
<b>AUDIT RESULTS (Thousands)</b>					
Questioned Costs	\$5,110	\$1,327	\$4,846	\$2,713	\$980
Disallowed by TVA	5,695	655	1,303	1,879	2,255
Recovered by TVA	1,143 <sup>1</sup>	326	763	1,921 <sup>2</sup>	2,655 <sup>3</sup>
Funds To Be Put To Better Use	\$6,702	\$4,945	\$24,963	\$13,696	\$9,703
Agreed to by TVA	9,558	20,005	7,450	149	8,853
Realized by TVA	2,441 <sup>4</sup>	1,162	12,750 <sup>5</sup>	2,091	480
<b>OTHER AUDIT-RELATED PROJECTS</b>					
Completed	9	19	13	27	10
Cost Savings Identified/Realized (Thousands)	\$0	\$0	\$0	\$0	\$0
<b>EVALUATIONS</b>					
Completed	1	8	3	9	2
Cost Savings Identified/Realized (Thousands)	\$0	\$0	\$0	\$0	\$0
<b>INVESTIGATIONS<sup>6</sup></b>					
<b>INVESTIGATION CASELOAD</b>					
Opened	178	190	190	199	168
Closed	202	228	161	221	198
In Progress at End of Reporting Period	146	163	199	167	189
<b>INVESTIGATIVE RESULTS (Thousands)</b>					
Recoveries	\$17.5	\$8	\$2,144	\$36.2	\$41.8
Savings	0	0	2,515	4,028	0
Fines/Penalties	1.7	1	453	8 <sup>7</sup>	5.9
Other Monetary Loss	\$496,500	\$9,693 <sup>8</sup>			
<b>MANAGEMENT ACTIONS</b>					
Disciplinary Actions Taken (No. of Subjects)	19	23	7	14	7
Counseling/Management Techniques Employed (No. of Cases)	24	18	24	31	25
Debarment	2	0	1 <sup>9</sup>		
<b>PROSECUTIVE ACTIVITIES (No. of Subjects)</b>					
Referred to U.S. Attorneys	14	22	22	51	16
Referred to State/Local Authorities	1	3	1	2	2
Indicted	5	6	1	7	4
Convicted	4	5	1	8	3
Pretrial Diversion	1	1	0	1	2

<sup>1</sup> Includes \$198,352 recovered in excess of amounts decided by management.

<sup>2</sup> Adjusted to correct amount reported in prior semiannual reports.

<sup>3</sup> Ibid.

<sup>4</sup> Includes \$18,474 savings realized in excess of amounts decided by management.

<sup>5</sup> Includes \$304,036 savings realized in excess of amounts decided by management.

<sup>6</sup> These numbers include task force activities and joint investigations with other agencies.

<sup>7</sup> Adjusted to correct amount reported in prior semiannual reports.

<sup>8</sup> Category added in semiannual period ended September 30, 2011.

<sup>9</sup> Category added in semiannual period ended March 31, 2011.



Sequoyah Nuclear Plant

## APPENDIX 7

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### GOVERNMENT CONTRACTOR AUDIT FINDINGS

The National Defense Authorization Act for FY 2008, P.L. 110-181, requires each IG appointed under the IG Act of 1978 to submit an appendix on final, completed contract audit reports issued to the contracting activity that contain significant audit findings—unsupported, questioned, or disallowed costs in an amount in excess of \$10 million or other significant findings—as part of the Semiannual Report to Congress. During this reporting period, the OIG issued no contract review reports under this requirement.

## PEER REVIEWS OF THE TVA OIG

### Audits Peer Review

IG audit organizations are required to undergo an external peer review of their system of quality control at least once every three years, based on requirements in the *Government Auditing Standards* (Yellow Book). Federal audit organizations can receive a rating of pass, pass with deficiencies, or fail. The TVA OIG underwent its most recent peer review of its audit organization after FY 2010. An ad hoc team appointed by CIGIE and led by the U.S. Department of Education (Education) OIG performed the review. Education OIG issued the report, dated March 21, 2011, in which it concluded that the TVA OIG audit organization's system of quality control for the FY ended September 30, 2010, was suitably designed and complied with to provide the OIG with reasonable assurance of performing and reporting in conformity with applicable professional auditing standards in all material respects. Accordingly, the TVA OIG received a rating of pass. The peer review report is posted on our Web site at <http://oig.tva.gov/peer-review.html>.

### Investigations Peer Review

The Investigations organization undergoes an external peer review, Quality Assessment Review (QAR), at least once every three years. During the semiannual period ended March 31, 2011, the Office of Personnel Management (OPM) OIG completed a QAR of the TVA OIG Investigative Operations. The OPM OIG found the "... system of internal safeguards and management procedures for the investigative function of the TVA OIG in effect for the year ending August 1, 2010, is in compliance with the *Quality Standards for Investigations* and the Attorney General guidelines. These safeguards and procedures provide reasonable assurance of conforming with professional standards in the conduct of investigations." The QAR report can be found on our Web site at <http://oig.tva.gov/peer-review.html>.

Tennessee River







# GLOSSARY, ABBREVIATIONS & ACRONYMS

TVA OIG SEMIANNUAL REPORT

DANGEROUS WATER  
HIGHEST TIDES  
OCCUR SUDDENLY  
KEEP OUT

**Disallowed Cost** - A questioned cost that management, in a management decision, has sustained or agreed should not be charged to the agency.

**Final Action** - The completion of all management actions, as described in a management decision, with respect to audit findings and recommendations. When management concludes no action is necessary, final action occurs when a management decision is made.

**Funds Put To Better Use** - Funds, which the OIG has disclosed in an audit report, that could be used more efficiently by reducing outlays, deobligating program or operational funds, avoiding unnecessary expenditures, or taking other efficiency measures.

**Management Decision** - The evaluation by management of the audit findings and recommendations and the issuance of a final decision by management concerning its response to such findings and recommendations.

**Questioned Cost** - A cost the IG questions because (1) of an alleged violation of a law, regulation, contract, cooperative agreement, or other document governing the expenditure of funds; (2) such cost is not supported by adequate documentation; or (3) the expenditure of funds for the intended purposes was unnecessary or unreasonable.

**Unsupported Costs** - A cost that is questioned because of the lack of adequate documentation at the time of the audit.

**Improper Payment** - Any payment that should not have been made or was made in an incorrect amount under statutory, contractual, administrative, or other legally applicable requirements, as defined in the IPIA.

## ABBREVIATIONS & ACRONYMS

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The following are abbreviations and acronyms widely used in this report.

AIG .....	Assistant Inspector General
ALF .....	Allen Fossil Plant
Bechtel .....	Bechtel Power Corporation
Bellefonte .....	Bellefonte Nuclear Plant
Browns Ferry .....	Browns Ferry Nuclear Plant
CAP .....	Corrective Action Plans
CIGIE .....	Council of Inspectors General on Integrity and Efficiency
CQAR .....	Coal Quality Adjustment Reports
CUF .....	Cumberland Fossil Plant
DHS .....	U.S. Department of Homeland Security
Education .....	U.S. Department of Education
EIA .....	U.S. Energy Information Administration
EPU .....	Extended Power Uprate
FISMA .....	Federal Information Security Management Act
FY .....	Fiscal Year
IG .....	Inspector General
INPO .....	Institute of Nuclear Power Operations
IPIA .....	Improper Payment Information Act
IRP .....	Integrated Resource Plan
IT .....	Information Technology
MTSA .....	Maritime Transportation Security Act of 2002
MW .....	Megawatt
NCCC .....	National Center for Cybersecurity and Communications
NRC .....	Nuclear Regulatory Commission
OIG .....	Office of the Inspector General
OMB .....	Office of Management and Budget
OPM .....	Office of Personnel Management
OWCP .....	Office of Workers' Compensation Programs
PER .....	Problem Evaluation Report
PHI .....	Personal Health Information
PII .....	Personally Identifiable Information
QA .....	Quality Assurance
QAR .....	Quality Assessment Review
Sequoyah .....	Sequoyah Nuclear Plant
SPP .....	Standard Programs and Processes
TVA .....	Tennessee Valley Authority
U.S. ....	United States
Watts Bar .....	Watts Bar Nuclear Plant
WP .....	Winning Performance





## OFFICE of the INSPECTOR GENERAL

400 West Summit Hill Drive  
Knoxville, Tennessee 37902

The OIG is an independent organization charged with conducting audits, evaluations, and investigations relating to TVA programs and operations, while keeping the TVA Board and Congress fully and currently informed about problems and deficiencies relating to the administration of such programs and operations.

The OIG focuses on (1) making TVA's programs and operations more effective and efficient; (2) preventing, identifying, and eliminating waste, fraud, and abuse as well as violations of laws, rules, or regulations; and (3) promoting integrity in financial reporting.

If you would like to report to the OIG any concerns about fraud, waste, or abuse involving TVA programs or violations of TVA's Code of Conduct, you should contact the OIG EmPowerline system. The EmPowerline is administered by a third-party contractor and can be reached 24 hours a day, seven days a week, either by a toll-free phone call (1-855-882-8585) or over the Web ([www.oigempowerline.com](http://www.oigempowerline.com)). You may report your concerns anonymously or you may request confidentiality.

## Report Concerns to the OIG EmPowerline



# EMPOWERLINE

A confidential connection for reporting fraud, waste or abuse affecting TVA.

## How to Report a Concern

Call toll-free: **855-882-8585**

or report on the web:  
**[www.OIGempowerline.com](http://www.OIGempowerline.com)**

## OIG *Leadership* PHILOSOPHY

The TVA OIG strives to be a high performing organization made up of dedicated individuals who are empowered, motivated, competent, and committed to producing high quality work that improves TVA and life in the Valley.

Each of us has important leadership, management, team, and technical roles. We value integrity, people, open communication, expansion of knowledge and skills, creative problem solving, and collaborative decision making.



THE CHALLENGE OF  
**MANAGING**  
*Change*

OFFICE of the INSPECTOR GENERAL  
TENNESSEE VALLEY AUTHORITY  
*Semiannual Report*  
OCTOBER 1, 2011 - MARCH 31, 2012

