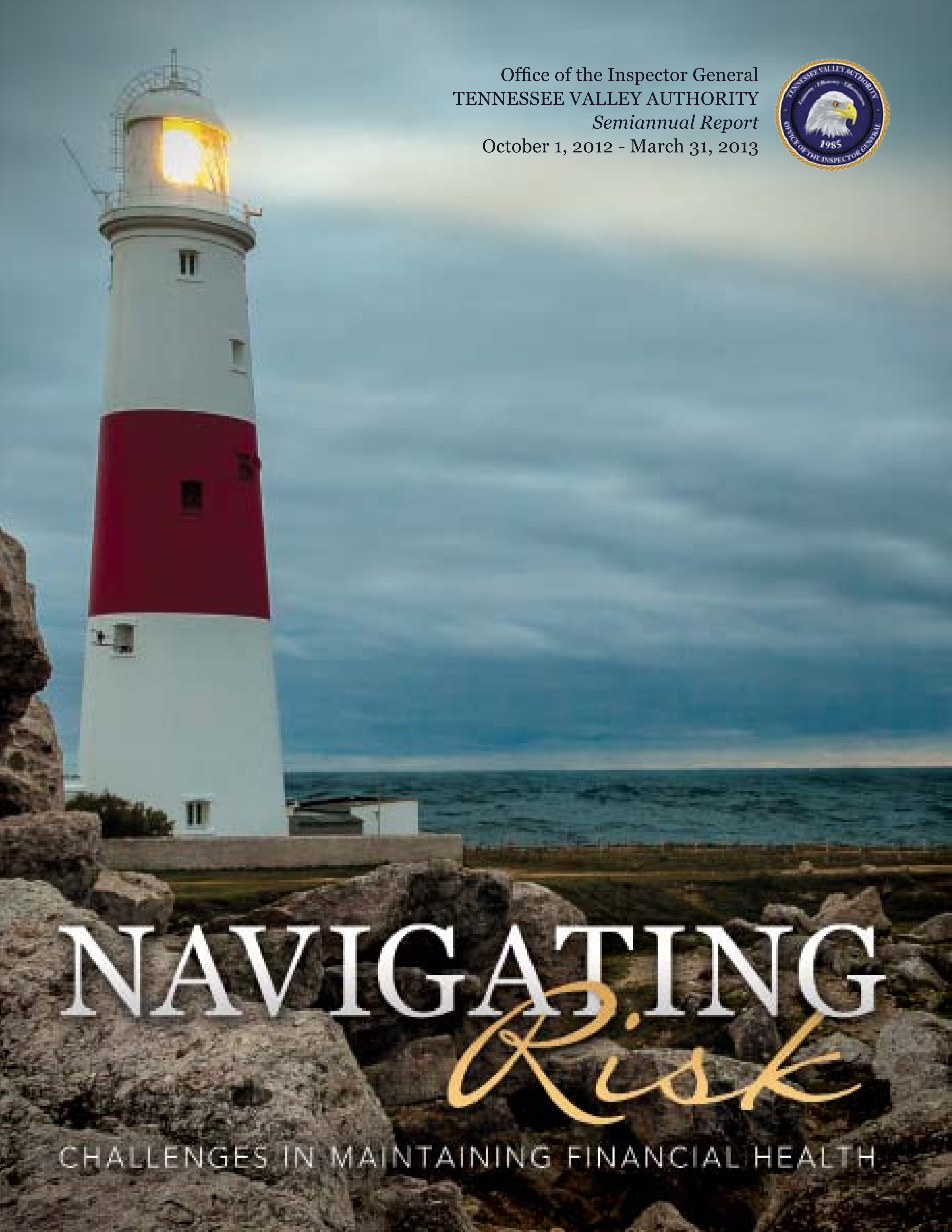
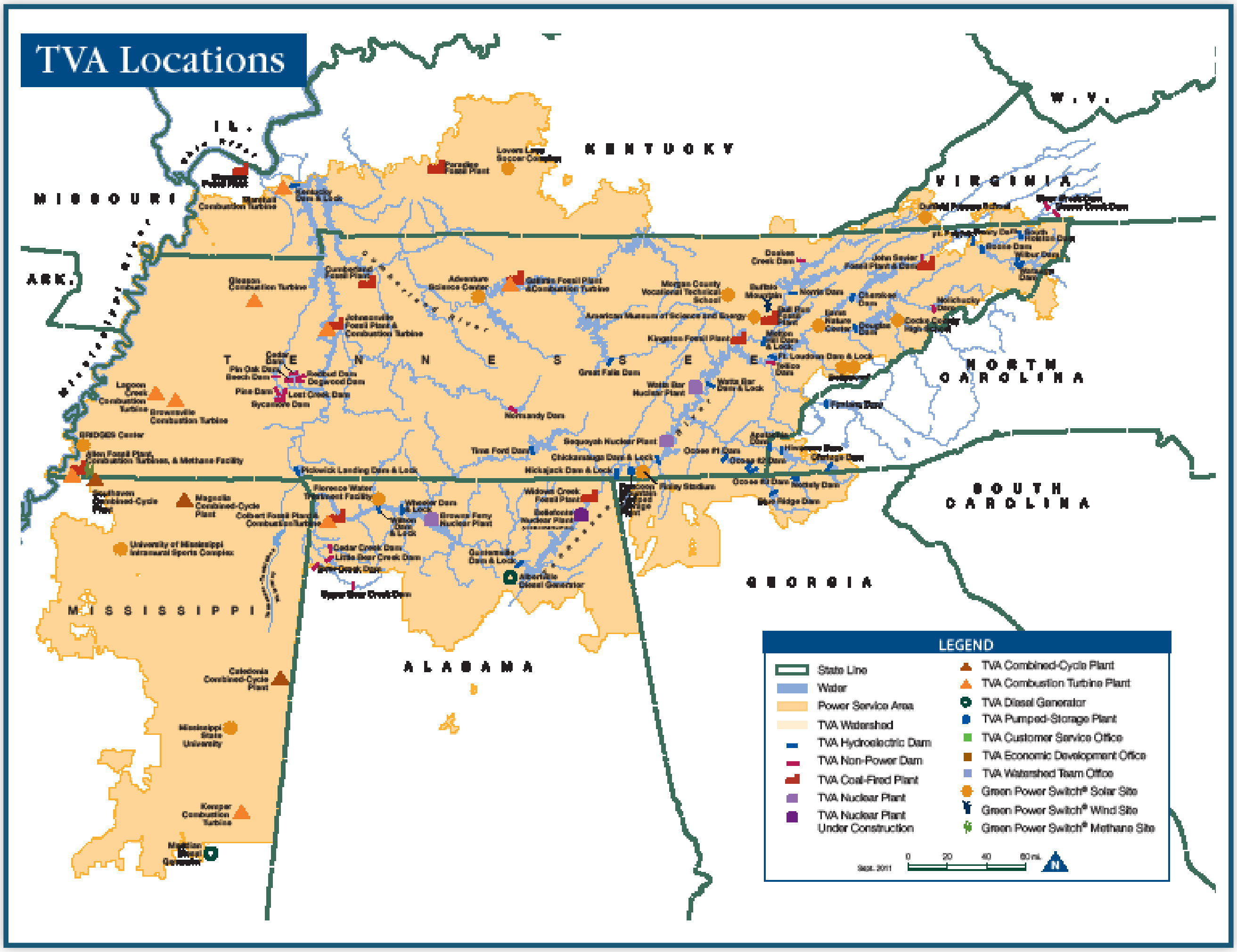
Office of the Inspector General
TENNESSEE VALLEY AUTHORITY
Semiannual Report
October 1, 2012 - March 31, 2013



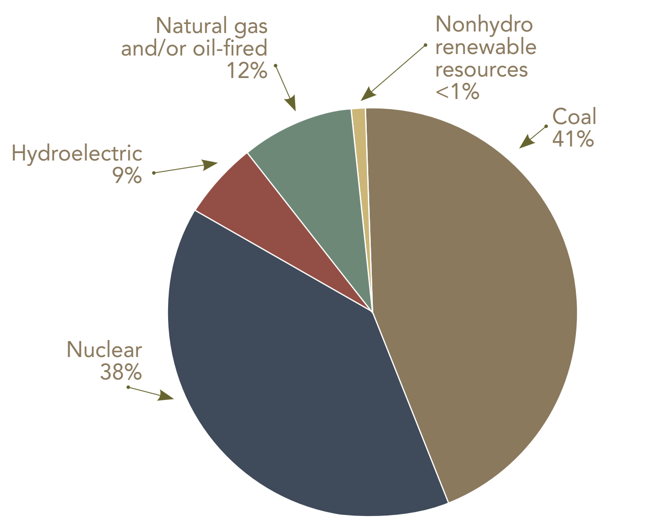
NAVIGATING *Risk*

CHALLENGES IN MAINTAINING FINANCIAL HEALTH



TVA POWER GENERATION FY 2012

(in millions of kilowatt hours)



- Coal - 58,584
- Nuclear - 55,244
- Hydroelectric - 12,817
- Natural gas and/or oil-fired - 16,650
- Nonhydro renewable resources - 25*

*Operation and maintenance issues reduced the available renewable generation during 2012, 2011, and 2010 from several facilities, including those utilizing methane, solar, and wind.

Source: TVA FY 2012 Annual Report

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Navigating Risk: Challenges In Maintaining Financial Health

Printed on Recycled Paper

Message from THE INSPECTOR GENERAL

I am pleased to present our report for the period October 1, 2012, to March 31, 2013. As we have said previously, risk is at the heart of everything we do. In the feature for this semiannual report, we continue our focus on navigating risk by discussing the Tennessee Valley Authority's (TVA) challenges in maintaining financial health. In these difficult economic times, it is more important than ever for the Office of the Inspector General (OIG) to illuminate the risks we see and work with TVA management to find solutions to mitigate those risks so that prudent decisions can be made on the best use of TVA resources.

To this end, in this semiannual period, our audit, evaluation, and investigative activities identified more than $2 million in recoveries, fines, penalties, potential savings, and questioned costs and identified numerous opportunities for TVA to improve its programs and operations. Some of the highlights include:

- ➢ A review of building and infrastructure risks which found the program design was reasonably effective; however, TVA's risk could be reduced by including underutilized properties in the program and addressing program funding where possible.
- ➢ Information technology (IT) related reviews which identified needed improvements in security and general operating controls.
- ➢ Contract compliance reviews which identified almost $1.3 million of questioned costs and needed improvements in contract administration.
- ➢ A review of TVA's meter testing which found testing complied with timeliness policies and procedures and met industry standards; however, improvements were needed in meter testing processes related to verification of meter constants, reconciliation of meter information in TVA systems, and consistency of testing documentation.
- ➢ A review of coal terminals supplying TVA which found improvements were needed in both TVA's monitoring of coal weight and quality and the flyover inventory adjustment process.
- ➢ Investigations which led to the conviction of four individuals on various charges, two indictments in federal court of former employees, and projected savings of more than $770,000 because of our role in the termination of a drug-trafficker's Federal Employees Compensation Act benefits.

On a personal note, I want to thank TVA's new President and Chief Executive Officer (CEO) Bill Johnson for the time he has graciously given to the OIG staff in getting to know us on a personal basis. In the midst of a daunting schedule, Bill Johnson has begun to build trust one TVA employee at a time. We applaud his efforts, and we pledge our support to our mutual purpose of making TVA better.

Also, I want to thank our new Board members for making themselves available recently to meet with Deputy Inspector General Ben Wagner and me in their hometowns. Lynn Evans of Memphis, Tennessee;

Fort Loudoun Dam

Peter Mahurin of Bowling Green, Kentucky; Mike McWherter of Jackson, Tennessee; and Joe Ritch of Huntsville, Alabama; all took time from their busy schedules to discuss our respective roles and responsibilities. A productive working relationship between the TVA Board and the OIG is based on trust. Trust is based on competency and character. Clear communication and frequent clarification promotes healthy dialogue. Together, we acknowledge a mutual purpose and a mutual respect that inures to the benefit of a better TVA.

We welcome our new CEO and Board members, and we look forward to the productive working relationship that our stakeholders reasonably expect.

Richard W. Moore

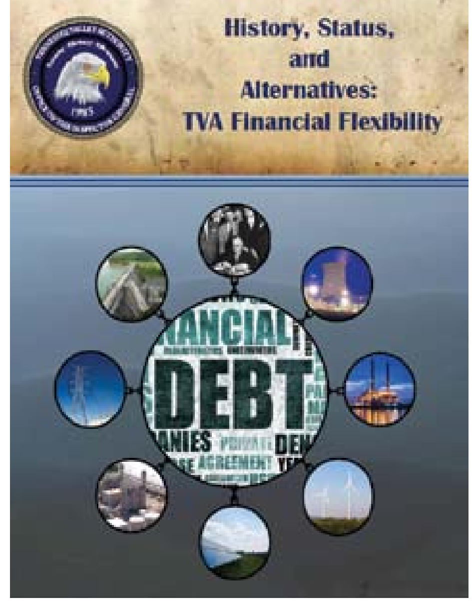
Richard W. Moore
Inspector General

SPECIAL FEATURE

TVA OIG SEMIANNUAL REPORT

Special Feature: NAVIGATING RISK: CHALLENGES IN MAINTAINING FINANCIAL HEALTH

In our Fall 2011 semiannual report, we discussed the role of the OIG in identifying and assessing risk at a government agency. Our last semiannual report discussed risks faced by TVA and others related to cyber security. In this article, we are focusing on major challenges and associated risks facing TVA that could impact financial health. The decisions TVA makes in addressing these challenges have significant financial impacts and affects how successful TVA is in achieving its mission of (1) low cost energy, (2) economic development, and (3) environmental stewardship.



There has been much debate about how you define a financially healthy TVA. Some people have suggested that TVA's debt levels should be cut in half. Additionally, the ability to meet cash flow requirements while maintaining competitive rates is a key factor. In the most simplistic view, financial health can be defined as a company's ability to pay its bills while maintaining a strong competitive position in the market place, as well as a healthy positive net worth. The TVA Board has established a set of financial principles to bring a level of discipline to TVA's decision making and ensure continued financial health. TVA maintains that the use of debt is consistent with several financial guiding principles, including that new debt should be used only to fund new generation investments and debt should be repaid before the end of the useful life of the assets, while operating costs and maintenance of the existing power system should be funded out of revenues. According to TVA, financing new generation with debt results in a lower cost to TVA's current ratepayers and aligns repayment of generation investment obligations with the consumers who will benefit from those assets.

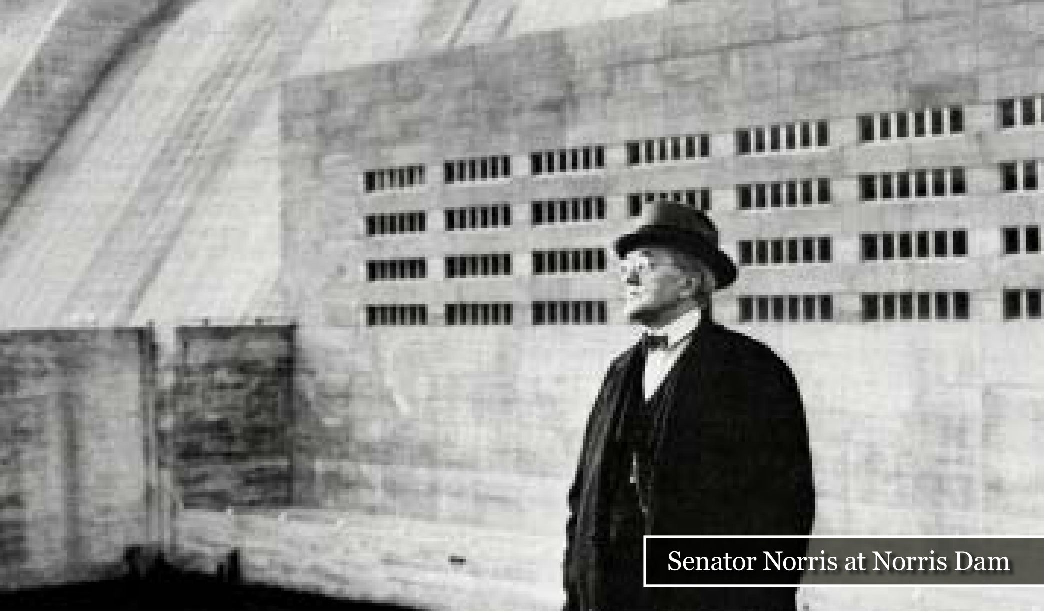
One thing is clear, TVA must use its financial resources in the most prudent manner to most effectively achieve its strategic goals. The OIG's goal is to help promote more effective and efficient operations through the conduct of our audits, evaluations, and investigations. This feature discusses (1) the history of TVA's successes, as well as challenges in remaining financially healthy; and (2) how the OIG's work helps illuminate risks and provide recommendations for TVA management to consider as they decide the best ways to address challenges while continuing TVA's mission.

SUCCESSES AND CHALLENGES

The news is littered with stories of bank failures, company downsizing, and spending cuts. These problems have resulted in job losses and lost investments—sometimes even lost hope and public trust. Financial problems for our nation are not new. As part of the "New Deal," President Franklin Roosevelt asked Congress to create "a corporation clothed with the power of government but possessed of the flexibility and initiative of a private enterprise." Eighty years ago, on May 18, 1933, TVA was born.

Successes

TVA has had a long, rich history filled with change. TVA's stakeholders and Valley residents can cite ample examples of


Senator Norris at Norris Dam

contributions over those years not only to the Tennessee Valley but also to the nation. From its early days of developing fertilizer for lands that had been farmed too long to harnessing the rivers for flood control and navigation, TVA became a lighthouse to a region canvassed in the darkness of the 1930s economic Depression. Regional life changed with the advent of electricity generated by TVA dams. Electric lights and modern appliances made life easier and farms more productive. The region saw job growth through industries drawn in by electricity. Coal-fired plants joined in with hydroelectric dams in making electricity. Since its inception, TVA has steadfastly held to its mission of providing reliable power at the lowest feasible cost and being a steward of the lands and rivers within its domain. Today, TVA meets the power demands of the Valley with a diverse energy portfolio and power rates that are competitive. TVA has maintained a world-class transmission system with 12 straight years of 99.999 percent reliability. TVA has a very good record of attracting and retaining a significant number of jobs in the Valley and securing billions of dollars in capital investment. While TVA pursued its mission, there have been many difficult challenges to overcome.

Historic Challenges

The TVA region experienced much economic growth in the 1960s. TVA's electric rates were among the nation's lowest and stayed low as TVA brought larger, more efficient generating units into service. Expecting the region's electric power needs to continue to grow, TVA began building nuclear plants as a new source of economical power. However, by the early 1980s, TVA had cancelled 8 of its 17 planned nuclear units, after investing nearly $5 billion in those cancelled units. TVA's decision to cancel completion of these 8 units was based on less-than-expected demand and the emergence of increased regulatory requirements as a result of events within the nuclear power industry. It was also during this time that TVA increased its debt ceiling to $30 billion—an amount which remains TVA's ceiling today—primarily in order to fund the nuclear construction.

During the late 1980s, rumors of deregulation created a sense of urgency within the members of the industry to cut costs and improve competitive position. In anticipation of deregulation, TVA did not raise rates for 10 years, from 1988 through 1997, in order to be more competitive. While the decade-long rate freeze may have improved TVA's relations with its customers and the residents of the Tennessee Valley in the short-term, it also may have had long-term, possibly unforeseen, consequences. Presumably, the loss of potential revenue associated with the ten-year rate freeze may have placed unnecessary pressure on TVA's financial flexibility.

With no increased revenues from rate increases, TVA's July 1997 ten-year business plan called for reducing its debt in half over ten years. This was to be done by increasing its electricity rates beginning in 1998, reducing certain expenses, and limiting capital expenditures. However, TVA did not meet this goal because it used cash intended for debt reduction to cover greater than estimated annual operating costs and capital expenditures, primarily related to compliance with clean air initiatives.

TVA's financial challenges weren't just limited to generation demand or reactions to potential deregulation. In December 2008, TVA experienced one of the most costly events in its history: the Kingston ash spill, which resulted in approximately 5.4 million cubic yards of coal ash spilling onto the adjacent land and into the Emory River. Not only was this spill one of the most costly events in TVA history, it was in fact the largest fly ash release in United States history.

Current Challenges

Today, like in the past, uncertainty continues to be a tremendous challenge to maintaining a strong, financially-healthy TVA. Like many companies that are capital-intensive, TVA faces several challenges related to financial management stemming from both internal and external pressures. TVA must continue to provide cost-effective new generation in view of the risk of future changes in demand. TVA must decide how to handle an aging coal fleet, given that it may not be economical to improve the reliability of some units in light of their age and current condition. TVA faces additional challenges outside of their control including: (1) challenges by way of more stringent environmental regulations around clean air, water quality control and management and disposal of solid and hazardous wastes, and other increasing regulatory requirements that could increase costs; (2) increasing demands for higher cost alternative energy sources; and (3) nationwide uncertainty of market conditions which could also significantly affect pension funds, the cost for natural gas and coal, and ultimately lower electricity sales. In 2011, TVA completed an integrated resource plan (IRP) that identifies a strategy and roadmap for TVA to follow over the next several years. TVA's IRP has been developed to support TVA's mission for meeting the electric power needs of the Tennessee Valley region in a sustainable manner. The 20-year strategy recommended by the IRP provides direction for decisions that require a long lead time. It is consistent with TVA's Environmental Policy and its renewed vision—to become one of the nation's leading providers of low-cost and cleaner energy by 2020. TVA management has determined that this plan needs to be revised to reflect new conditions and is currently undertaking efforts to update this plan.

OIG FOCUS

TVA's financial health is an area of constant focus for the OIG. Over the past several years, our office has performed many audits, reviews, and special projects to assess the challenges affecting financial management and performance, including areas covering TVA's: (1) financial flexibility and alternative financing arrangements; (2) issues affecting the cost and schedule of constructing Watts Bar Nuclear Plant (WBN) Unit 2; (3) risks associated with its pension plan; (4) financial trading program and its effect of financial results; and (5) generation and distribution assets condition. We are continuing our focus in the future by reviewing how well TVA is maintaining its fleet, closing the gap on pension funding, and ensuring executive goals are aligned properly to focus on long-term health. Discussed below are the results of some previously completed reviews.

Financial Flexibility

In 2011, we assessed TVA's financial flexibility given its current debt and other borrowing levels and alternatives for TVA to meet its future financing needs.


Watts Bar Nuclear Plant

We reported that TVA's then and current debt ceiling of $30 billion could limit its financial flexibility and require TVA to seek higher cost financing options or require significant rate increases that could adversely affect the economic development of the Tennessee Valley region. At the time, TVA was evaluating various options to increase its flexibility. TVA management's position was that a financial metric (e.g., similar to the debt service coverage ratio used with investor-owned utilities) rather than a fixed debt ceiling amount would better focus TVA's borrowing authority on its ability to pay outstanding debt and still provide Congress with oversight and control. Our office agreed with TVA management in their efforts to maintain maximum financial flexibility including: (1) adopting sound financial policies, (2) ensuring multiple options and strategies are pursued to achieve the most economical approach, and (3) seeking to ensure the debt ceiling remains a viable option in future financing decisions. We also stated that TVA should be able to support additional debt to help meet energy demands as long as TVA uses the debt proceeds to successfully build generating capacity, the TVA Board maintains its ratemaking authority, and TVA maintains its service territory and customer base.

Watts Bar Unit 2 Cost and Schedule

TVA began construction on WBN Unit 2 in October 2007. In 2012, our review of the WBN Unit 2 cost and schedule found the construction project had experienced significant schedule and cost overruns attributable primarily to (1) deficiencies in project set-up and (2) ineffective management oversight. At the time, the project was originally expected to be completed in October 2012 at a cost of just under $2.5 billion. However, on April 5, 2012, TVA announced an additional $1.5 to $2 billion would be required to complete the project with an estimated time of completion between September and December 2015.

TVA recognized the problems associated with the construction of WBN Unit 2 and publicly acknowledged them. TVA has taken action to offer an accurate reflection of the progress of the project, engage and improve the relationship with the project workers, and promote transparency. In addition, outside experts are being used to provide additional independent oversight at continual points in the project to ensure the project proceeds within the schedule and budget expectations approved by the TVA Board in April 2012.

Pension Funding

In 2010, we reported on the risks associated with TVA's pension plan and how those risks were mitigated. Based on our work, we determined that the Tennessee Valley Authority Retirement System (TVARS) was experiencing a significant shortfall between assets and projected obligations and was being funded at a lower level, relative to obligations, than most other comparison utilities. This funding shortfall resulted from (1) TVA not making contributions to TVARS in six years, (2) TVA/TVARS adding significant benefits to the plan during the time when the funding status was better, (3) TVA/TVARS incentivizing employees to retire, and (4) the market devaluation in 2008 and early 2009. We noted that these events constituted a near "perfect storm" that created a financially unhealthy system with a funding shortfall of approximately $3 billion and annual retirement benefit payment obligation of about $575 million as of December 31, 2008.

As of September 30, 2012, TVA's qualified pension plan had assets of $7 billion compared to liabilities of $11.9 billion. TVA stated the potential for the plan's funded status to quickly improve is limited because of the significant amount of benefits paid each year to plan beneficiaries. At that date, the plan had approximately 36,000 participants, of which approximately 23,000 were retirees or beneficiaries currently receiving benefits. Benefits of approximately $600 million were paid to participants in 2012.

TVA's Financial Trading Program

TVA's Financial Trading Program (FTP) was established to hedge or otherwise limit the economic risks associated with the price of commodities covered by TVA's Fuel Cost Adjustment. Because of the growth in FTP financial positions and the inherent risk with the program, we audited the natural gas hedging program which was significant in size relative to other commodities in the program. We found the design of TVA's program control structure was appropriate. However, we identified several areas where management oversight should be improved to validate the usefulness and effectiveness of the program as well as to ensure TVA stakeholders' understanding of the program. Specifically: (1) TVA had not conducted a comprehensive cost-benefit analysis to determine whether the benefits derived were greater than the inherent risks of the program; (2) TVA did not measure the performance of the program against defined program objectives; and (3) TVA's communications with its customers did not sufficiently convey the program's impact on rates. We plan to conduct a follow-up review to look more in depth at TVA's trading strategies.

Condition of TVA's Generating Assets

Given the aging fleet of TVA's generating assets, in this semiannual period, we reviewed how TVA (1) assesses the condition of electric generation and distribution assets and (2) uses that information for planning. Our review covered the Nuclear and Fossil Power Groups, Energy Delivery, and River Operations organizations. Within these organizations, we found the condition of assets was identified through system, program, and component health assessments, although the process varied among the organizations. We also noted that all of the organizations reviewed used asset condition information to identify corrective actions when necessary. Finally, we found that condition of asset information was used by the (1) organizations to develop and prioritize projects for business planning purposes and (2) System Planning group for future costs.

CONCLUSION

In summary, TVA's challenges are as great today as they ever have been. In looking at the past, the monumental challenges that were overcome to sustain the current performance record are noteworthy. As we have stated in previous semiannual reports, overcoming the current and future challenges will require TVA management, TVA employees, and the OIG to continue working toward a mutual purpose—making TVA better. The OIG will continue to provide constructive input by bringing challenges to the forefront and collaborating with TVA management and employees on the most effective and efficient solutions to deal with the challenges confronted and that lie ahead.

EXECUTIVE OVERVIEW

TVA OIG SEMIANNUAL REPORT

EXECUTIVE OVERVIEW

In this semiannual report, we continue our theme of Navigating Risk with a focus on TVA's challenges to maintaining its financial health and the OIG's role in helping TVA successfully achieve its mission. The reviews discussed below highlight our most recent efforts to provide TVA management with independent assessments of the performance of TVA programs, risks identified, and recommendations for improvement that TVA management can leverage as they strive to make the best decisions to keep TVA operating effectively.


Bellefonte Nuclear Plant

AUDITS

During this reporting period, the TVA OIG completed 16 audits, reviews, and agreed-upon procedures. Our work identified approximately $1.3 million in questioned costs and helped TVA recover more than $558,000. This work also identified numerous opportunities for TVA to improve its programs and operations.

Contract Audits

We completed five contract compliance audits with expenditures totaling $173.5 million related to (1) engineering, licensing, construction, and startup operation services in support of completion of TVA's Bellefonte Nuclear Plant; (2) vacuuming services at TVA fossil plants; (3) relocation services for TVA employees; (4) refueling outage services at TVA's WBN Plant; and (5) project planning, management, oversight, and environmental services for the recovery and remediation associated with the Kingston Fossil Plant ash spill in 2008. These audits identified potential overbillings of about $1.3 million. The Contract Audits section begins on page 23 of this report.

Corporate Governance and Finance Audits

With a focus on TVA's revenue recognition, regulatory activities, compliance with applicable laws and regulations, and financial reporting, we completed an audit of TVA's testing of revenue meters and determined TVA's meter testing complies with TVA policies and procedures regarding timeliness and meets identified industry standards; however, we noted areas for improvement in TVA's meter testing processes. We also completed a mandated review of TVA's compliance with the Improper Payment Information Act (IPIA) of 2002, as amended. Finally, we applied agreed-upon procedures to TVA's 2012 Winning Performance (WP) payout and performed procedures to monitor the external auditors' fiscal year (FY) 2012 audit of TVA's financial statements. The Corporate Governance and Finance Audits section begins on page 25 of this report.

IT Audits

We completed four audits in the IT environment pertaining to TVA's (1) processes for (a) complying with North American Electric Reliability Corporation (NERC) critical infrastructure protection (CIP) standards for critical cyber asset identification and (b) self-reporting of CIP violations; (2) IT security and privacy practices as required by the Federal Information Security Management Act (FISMA); (3) IT general controls for river scheduling systems; and (4) management of the Unix operating system. Our reviews found security and general control improvements were needed. The IT Audits section begins on page 27 of this report.

Operational Audits

The team completed three audits related to (1) TVA's efforts to identify and mitigate risks


Browns Ferry Nuclear Plant

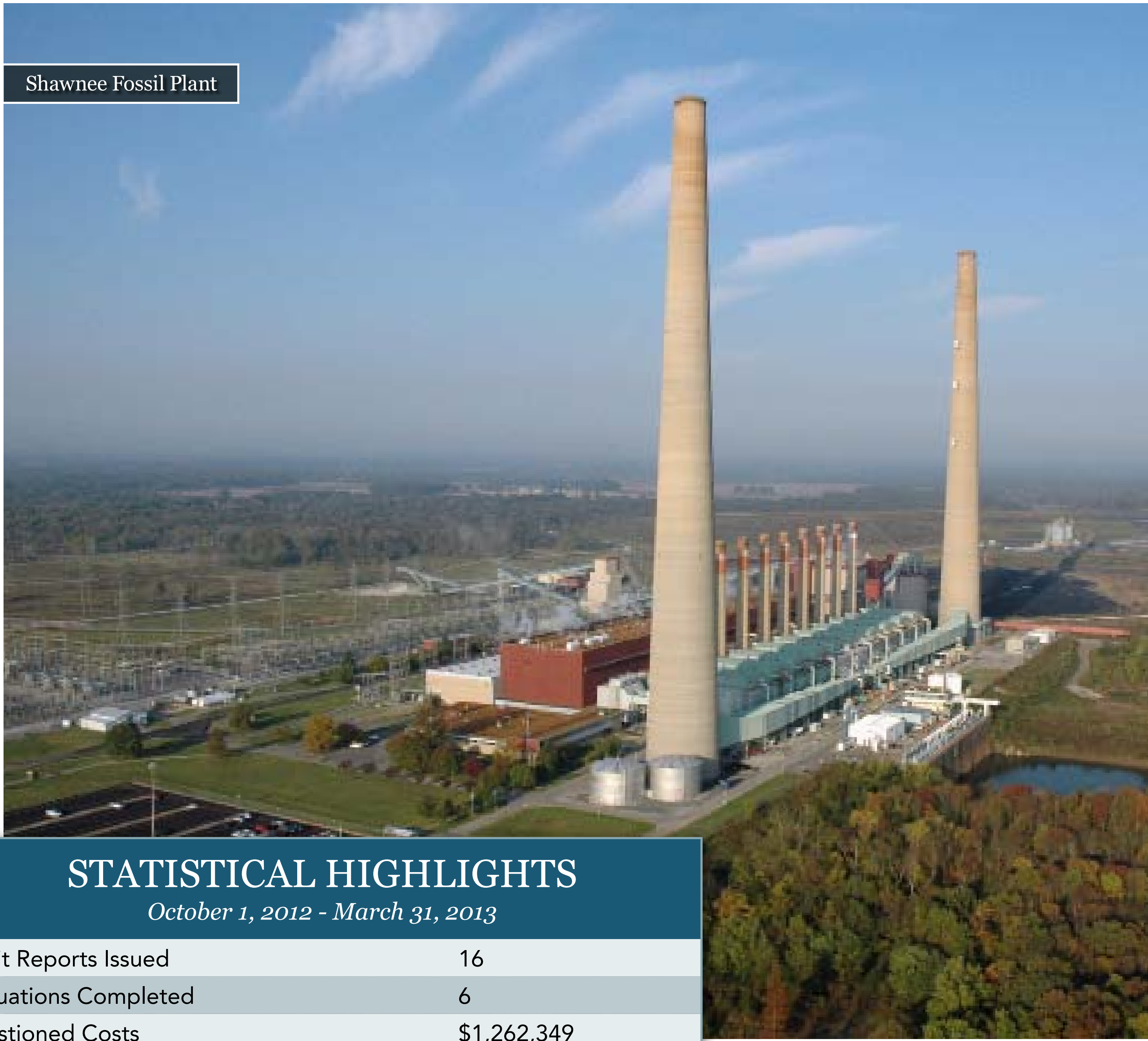
associated with its buildings and infrastructure, (2) TVA's risk for significant equipment failures in River Operations, and (3) Browns Ferry Nuclear (BFN) Plant's transition to a new fire protection standard. We identified opportunities to improve (1) processes and risk exposure related to buildings and infrastructure, (2) the process used to identify equipment failures in River Operations, and (3) contingency plans for transitioning to a new fire protection standard. The Operational Audits section begins on page 29 of this report.

EVALUATIONS

The Evaluations team completed six reviews. Three reviews were part of a series that evaluated key TVA risks. These included physical assaults risk, load forecast risk, and outage scheduling risk. We found the mitigation strategies for each of these three risks were appropriately designed; however, opportunities for improvement were identified. The team also completed a review of coal terminals supplying TVA and identified improvements were needed with coal monitoring and the flyover inventory adjustment process at terminals. Finally, the team reviewed TVA's temporary living allowances and found employees tested met all eligibility requirements. The Evaluations section begins on page 33 of this report.

INVESTIGATIONS

This reporting period, our investigations resulted in four persons convicted and two indicted in federal court. Violations ranged from theft to major fraud. Additionally, our role in the termination of a former employee's workers' compensation benefits resulted in a projected savings of more than $770,000. The Investigations section begins on page 39 of this report.


Shawnee Fossil Plant

STATISTICAL HIGHLIGHTS

October 1, 2012 - March 31, 2013

Audit Reports Issued	16
Evaluations Completed	6
Questioned Costs	$1,262,349
Disallowed Costs	$2,039,310
Funds Recovered	$558,602
Funds to Be Put to Better Use	$0
Funds Realized by TVA	$145,000
Investigations Opened	134
Investigations Closed	105
Recoveries/Savings/Fines/Penalties	$770,234
Other Monetary Loss	$0
Criminal Actions	6
Administrative Actions (No. of Subjects)	16

TVA ORGANIZATION

TVA OIG SEMIANNUAL REPORT

- **Richard W. Moore** — Inspector General
  - **Charles A. Kandt** — Counselor to the IG
  - **Ben R. Wagner** — Deputy Inspector General
    - **W. David Winstead** — Legal Counsel
    - **Jill M. Matthews** — Assistant Inspector General, Administration
      - **Kay T. Myers** — Director, Organizational Health & Resource Management
      - **Kathy H. Kirkham** — Manager, Human Resources
    - **Robert E. Martin** — Assistant Inspector General, Audits & Evaluations
      - **Lisa H. Hammer** — Director, Operational Audits
      - **David P. Wheeler** — Deputy Assistant Inspector General, Audits
        - **Phyllis R. Bryan** — Director, IT Audits
        - **Curtis C. Hudson** — Director, Contract Audits
        - **Rick C. Underwood** — Director, Corporate Governance & Finance Audits
      - **Greg R. Stinson** — Director, Evaluations
    - **John (Jack) Brennan** — Assistant Inspector General, Investigations
      - **Nancy J. Holloway** — Special Agent In Charge
      - **Paul B. Houston** — Special Agent In Charge

ORGANIZATION

Since 1985, the OIG has worked to help TVA become better which is the OIG mission. Through our audits, evaluations, and investigations, we provide TVA management, the TVA Board, and Congress with an independent look at the economy, efficiency, and effectiveness of TVA programs and help prevent and detect fraud, waste, and abuse. Over the years, the OIG has saved TVA millions and recommended numerous program improvements. We credit our success to the efforts of our hardworking and talented staff and the professional responsiveness of TVA management to our recommendations.

TVA Towers Knoxville, TN

TVA OIG Office Locations

The OIG has a work philosophy of being in the right place at the right time to do the best work possible. We support that philosophy by encouraging our OIG employees to work where they can be most effective whether that is in one of our physical offices or whether it is one of our virtual offices supported by Web cameras that allow our employees to telework from home or while traveling. We measure productivity, not where the work is done.

The OIG has strategically located its offices near all major TVA offices throughout the Tennessee Valley. We are headquartered opposite TVA's corporate offices in the East Tower, overlooking downtown Knoxville.


Sequoyah Nuclear Plant

The OIG has a field office in the Edney Building in Chattanooga, Tennessee, where the Evaluations unit, members of the Corporate Governance and Finance team, and several Special Agents are located as well as staffed field offices in Nashville, Tennessee, and Huntsville, Alabama. We also have office locations at WBN Plant in Spring City, Tennessee; Bellefonte Nuclear Plant in Hollywood, Alabama; and Sequoyah Nuclear (SQN) Plant in Soddy-Daisy, Tennessee. Staff work in these locations as needed.

As of March 31, 2013, the OIG had a total staff of 103. The number of personnel located at each staffed office is: Knoxville-80, Chattanooga-18, Nashville-1, and Huntsville-4.

ADMINISTRATION

The Administration team works closely with the IG, Deputy IG, and Assistant IGs 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, conference 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. In developing the plan, the OIG considers TVA's strategic plans, major management challenges, TVA's enterprise risk management process, and other input from TVA management. This 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 congressional interest), and the likelihood it will result in recommendations for cost savings or process improvements. The result of the OIG 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 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

Nickajack Dam

TYPES OF AUDIT & EVALUATION ISSUES

Corporate Governance and Finance Audits
- Internal Control Deficiencies
- Program Inefficiencies/Ineffectiveness
- Policy Noncompliance
- Fraud

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

IT 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

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 has lead responsibility for oversight of TVA's (1) financial statement audit and related services performed by TVA's external auditor and (2) regulatory activities. This group also 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 focuses on risk and impact-driven operational audit work. The team performs audits of operational effectiveness and efficiency, as well as TVA compliance with laws and regulations.

The Evaluations team 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 conducting inquiries into allegations of fraud, waste, abuse, and mismanagement. Audit and evaluation issues vary depending on the objectives of the project. The graphic above shows some representative examples of issues our audit and evaluation projects are commonly designed to identify.

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 Special Agents maintain liaisons with federal and state prosecutors and notify the U.S. Department of Justice (DOJ) whenever the OIG has reason to believe there has been a violation of federal criminal law. The Special Agents partner with other investigative agencies and organizations on special projects and assignments, including interagency law enforcement task forces on terrorism, the environment, health care, and public corruption and securities fraud. The graphic below shows the major categories of investigations.

LEGAL

The OIG Legal Counsel team monitors existing and proposed legislation and regulations that relate to the mandate, operations, and programs of the OIG and TVA. Additionally, this team provides legal advice as needed for administrative, audit, evaluation, and investigative projects.

MAJOR CATEGORIES OF INVESTIGATIONS

Contract Fraud

Defrauding TVA through its procurement of goods and services including fraud schemes such as misrepresenting costs, overbilling 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

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, conflict of interest, and alleged violations of code of conduct.

Special Projects

Management requests, data mining and predictive analysis, Congressional and Board requests, and fraud risk assessments.


Johnsonville Fossil Plant

REPRESENTATIVE AUDITS

TVA OIG SEMIANNUAL REPORT

Summary of
REPRESENTATIVE AUDITS

During this reporting period, the TVA OIG completed 16 audits, reviews, and agreed-upon procedures. Our work identified approximately $1.3 million in questioned costs and helped TVA recover more than $558,000. This work also identified numerous opportunities for TVA to improve its programs and operations. Below is a discussion of reports issued this period in the following areas: (1) contract compliance audits, (2) corporate governance and finance audits, (3) IT audits, and (4) operational audits.

CONTRACT AUDITS

During this semiannual period, we completed five compliance audits of contracts with expenditures totaling $173.6 million and identified potential overbillings of about $1.3 million. Highlights of our completed compliance audits follow.

- We audited a contractor's calendar year 2011 rate adjustments which totaled a credit of $134,544 based on $71.9 million of billed costs. The contract, which provided for the contractor to complete engineering, licensing, construction, and startup operations of a single Bellefonte Nuclear Plant unit, required the contractor to adjust its labor and general and administrative billing rates to its actual costs incurred each year. Based on the methodology included in the contract, we determined the rate adjustments should have been a credit due to TVA of $564,765. The contractor agreed with our calculations and plans to provide a credit to TVA for the total amount due.

- We audited $2.6 million in costs billed by a contractor for vacuuming services at TVA fossil plants. We determined the contractor overbilled TVA $254,060 including:

  - $153,619 due to the use of ineligible firm price billings.

  - $60,991 for hydroblasting work which was not included in the contract scope.

  - $20,229 of ineligible billings for materials and miscellaneous costs.

  - $19,221 of labor billings that was overstated because the contractor used billing rates that were not provided for by the contract.

- We audited $34.4 million in costs billed to TVA by a contractor for relocation services. The relocation services included relocation policy counseling to employees and their families, relocation accounting and, home sale, destination, mortgage, moving, and property management services. We determined the contractor overbilled TVA an estimated $347,359, which included $219,124 in storage costs, $74,498 in interest costs, and $53,737 in other relocation services costs.

- We audited $27.7 million in costs billed to TVA by a contractor for the WBN Plant's Unit 1 2011 refueling outage. We determined the contractor overbilled TVA an estimated

$215,042, which included $186,798 in nonmanual labor costs and $28,244 in craft labor costs. In addition, the contractor did not use the hourly craft superintendent classification provided for in TVA labor agreements and, instead, classified all superintendents as nonmanual employees, including six employees promoted from craft general foreman. Because a 15 percent general and administrative cost markup is applied to nonmanual labor, TVA paid an additional $35,867 for these six employees, which would not have been incurred if they had been appropriately classified as hourly craft superintendents.

- We audited $37 million in costs billed to TVA by a contractor for providing project planning, management, oversight, and environmental services to assist TVA in the recovery and remediation associated with the spill of 5.4 million cubic yards of coal ash from an on-site landfill at the Kingston Fossil Plant during 2008. We determined (1) the contractor had overbilled TVA an estimated $15,667, including $9,285 in ineligible overtime labor costs and $6,382 in excessive and ineligible travel and miscellaneous costs; and (2) TVA's calculation of overbilled temporary living allowance costs (which had been disputed by the contractor) was accurate. We also found several instances of inadequate contract administration, including (1) $266,788 paid by TVA for a labor classification which was not included in the contract's "Schedule of Prices,"

Kingston Fossil Plant


Nottley Dam

(2) $21,717 in additional travel costs paid by TVA which could have been avoided if temporary living allowance compensation terms had been included in the original contract, and (3) the contractor did not obtain advance written approval from TVA prior to billing subcontract, temporary living allowance, and relocation costs.

CORPORATE GOVERNANCE AND FINANCE AUDITS

During this semiannual period, Corporate Governance and Finance Audits (1) applied agreed-upon procedures related to TVA's 2012 WP payout; (2) monitored the audit of TVA's FY 2012 financial statements by an external auditor; (3) completed a mandated review of TVA's compliance with the IPIA, as amended; and (4) audited TVA's meter testing process.

Agreed-Upon Procedures Applied to 2012 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, 2012. In summary, we found:

- The FY 2012 WP goals were properly approved.
- The actual year-to-date amounts for September 2012 for all the measures on the Strategic Business Unit and Business Unit scorecards agreed with the respective supporting documentation provided.
- A comparison of the actual year-to-date amounts for the three incentivized TVA

Corporate balanced scorecard measures to the amounts in the definition sheets noted one exception related to the Nuclear Equivalent Availability Factor measure, but this did not result in a change to the payout. The three incentivized TVA Corporate balanced scorecard measures agreed with the underlying support.

- The FY 2012 WP payout percentages were provided by the Metrics and Performance Analysis organization on October 21, 2012. Although a subsequent change to the actual year-to-date amount for the Net Cash Flow measure was received October 30, 2012, the change did not impact any payout percentages.

Oversight of the FY 2012 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, 2012, 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 control over financial reporting as of fiscal year-end. The firm also reviewed TVA's FY 2012 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*.

TVA FY 2012 Compliance with the Improper Payment Information Act of 2002

The OIG performed an audit of TVA's compliance for FY 2012 with the IPIA, as amended. 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 2012 and determined the primary program susceptible to improper payments was its Supply Chain programs. TVA calculated the total amount of payments subject to review as more than \$9 billion. 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 more than \$14 million and 0.16 percent of program outlays. As a result, TVA's improper payments fell below the IPIA threshold amounts. We also noted TVA has overstated the amount it had subsequently recovered by \$1,109,769. The overstatement resulted because TVA did not include unrecovered amounts from recovery audits performed by a contractor.

TVA Meter Testing

In April 2011, TVA moved from an end-use billing process where distributors' wholesale bills were generated based on usage data provided by the distributor to a wholesale billing process where the wholesale bills are based on TVA's reading of its own meters. TVA's meter testing was put in place as a key internal control in the revenue recognition process after this change in billing processes. Since it is a key control, we performed an audit of the adequacy of TVA's process for testing meters that are owned and read by TVA. Our audit included (1) evaluating whether TVA meter testing policies and procedures met or exceeded identified industry standards, (2) verifying that TVA tested the meters within the applicable time limits in compliance with TVA meter testing policies and procedures, and (3) determining if TVA has processes in place to identify all meters used to capture data for wholesale billing purposes.

TVA-owned meters are tested as part of the preventative maintenance program. The meters are tested for functionality and accuracy. Adjustments are made if necessary, and the meter may be replaced if adjustments cannot be made to restore the required accuracy. TVA utilizes the Maximo system as the inventory system-of-record for its meters and to track actions taken as part of the preventative maintenance program. The Itron Enterprise Edition system contains information such as meter constants necessary to read the meter and actual meter readings. This information is communicated to the Lodestar system for use in billing customers.

In summary, we determined TVA's meter testing (1) complies with TVA policies and procedures regarding timeliness and (2) meets identified industry standards. However, we noted areas for improvement in TVA's meter testing processes including (1) verification of meter constants, (2) reconciliation of meter information in TVA systems, and (3) consistency of testing documentation.

We recommended TVA's Executive Vice President and Chief Energy Delivery Officer: (1) formalize the policy for testing and/or documenting meter constants as part of preventative maintenance; (2) develop a process or procedure for reconciling meter information included in the Maximo, Itron Enterprise Edition, and Lodestar systems; and (3) develop guidelines for acceptable documentation of meter tests, including information requirements, review, and maintenance. TVA management concurred with our recommendations and is taking, and in one case has taken, action to address these issues.


Bull Run Fossil Plant

IT AUDITS

During this semiannual period, we completed four audits in the IT environment pertaining to TVA's (1) processes for (a) complying with NERC CIP standards for critical cyber asset identification and (b) self-reporting of CIP violations; (2) IT security and privacy practices as required by the FISMA; (3) IT general controls for river scheduling systems; and (4) management of the Unix operating system.

Mitigation Plans to Address Self-Reported Compliance Violations Not Filed Timely

As a registered entity defined by NERC, TVA is required to comply with electric reliability standards promulgated by NERC, which include the CIP standards. SERC


Appalachia Dam

Reliability Corporation (SERC) is the regional entity delegated by NERC to propose and enforce the reliability standards. We performed this audit to determine (1) if TVA's process used to identify NERC critical cyber assets aligns with NERC standards, and (2) TVA adheres to its process used to determine self-reporting of CIP violations. While we found TVA is properly identifying and documenting critical cyber assets, as defined by NERC standards, we identified one minor issue with TVA's self-reporting of NERC CIP compliance violations. Specifically, we found three of the four self-reporting mitigation plans we reviewed were not filed with SERC within the 30-day time frame defined by TVA's procedure for resolving potential NERC compliance violations. We consider this issue to be low risk since it does not have any monetary, reputational, or safety impact to TVA. TVA management agreed with our findings and recommendations and is developing a remediation plan.

FISMA Controls Improving But More Still Needs to be Done

FISMA is meant to bolster computer and network security within the federal government. In accordance with FISMA and guidance from the Office of Management and Budget, TVA and the TVA OIG are required to report on agency-wide IT security and privacy practices annually. In our 2012 review of TVA's information security program, we found TVA had generally improved controls in the areas of: (1) contingency planning, (2) incident response and reporting, (3) security capital planning, and (4) remote access management. However, TVA was still implementing improvements in the areas of: (1) continuous monitoring management, (2) configuration management, (3) identity and access management, (4) risk management, (5) security training, (6) plan of action and milestones, and (7) contractor systems. In addition to TVA's ongoing initiatives to address improvements, we recommended TVA implement additional improvements in its security configuration management program. TVA management agreed with our findings and recommendations and is implementing its remediation plan.

IT General Controls for River Scheduling Systems Could be Improved

TVA is responsible for balancing the competing demands of the Tennessee River and its tributaries with respect to flood-damage control, navigation, dam safety, hydroelectric and renewable power production, recreation, water supply, and water quality through a highly engaged and safe work force. To support these operations, TVA's river scheduling systems are used to develop, dispatch, and monitor operating plans for the impoundment and release of water from TVA-managed reservoirs for purposes of flood damage reduction, navigation, power production, water quality, water supply, and recreation. We performed this audit to assess the adequacy of general, logical, and physical controls. We found the river scheduling systems had weaknesses in each control area tested during the audit. The lack of a robust overall IT system increases the potential risk of a cyber-attack, which could compromise TVA's ability to manage the river system. TVA management agreed with our findings and recommendations and is implementing remediation plans.

Unix Operating Security Controls Could be Improved

Critical TVA business processes, such as asset management, payroll, and purchasing, rely on applications that are dependent on the underlying security and general controls of the Unix operating system. These controls are used to manage access, application and data changes, data backup, and application availability. When these controls are ineffective, application data may be lost, improperly changed, or become unavailable disrupting TVA business processes and allowing the opportunity for fraud to occur. TVA has taken actions to close several OIG audit recommendations resulting in improved IT general controls in the areas of change management, configuration management, disaster recovery, and monitoring. We found the Unix corporate processes for disaster recovery, system logging, change management, and user account management controls are appropriate. However, we identified weaknesses in the existing security controls of Unix operating systems that could potentially affect the confidentiality, availability, and integrity of TVA systems considered significant to financial reporting. TVA management agreed with our findings and recommendations and is developing a remediation plan.

OPERATIONAL AUDITS

During this semiannual reporting period, Operational Audits evaluated TVA's efforts to identify and mitigate risks associated with its buildings and infrastructure, assessed TVA's risk for significant equipment failures in River Operations, and reviewed BFN Plant's transition to a new fire protection standard.

Building and Infrastructure Risks

TVA Facilities Management (FM) business unit is part of the Administrative Services strategic business unit and is responsible for managing TVA's facilities portfolio and providing services across TVA, such as building maintenance and grounds and property management. Within FM, Facilities Programs and Projects manages efforts for facility renovations, upgrades, major repairs, energy efficiency, sustainability, and other facilities' needs. These efforts include TVA's Facilities Asset Preservation (FAP) program, which was designed "to ensure core facility related assets are maintained in a condition to satisfy their intended operational capabilities." The FAP team is responsible for gathering asset information, identifying deficiencies, recommending corrective actions, and implementation planning of approved projects.

TVA's facilities asset portfolio includes more than 34 million square feet of gross space in about 3,446 structures, and a small number of these properties are not in use. From 2009 to 2011, FM identified 19 underutilized properties. Two of these properties, former coal plants, were decommissioned in 2011. A third property, part of TVA's Muscle Shoals reservation, is being mitigated under an extensive redevelopment project, which includes the November 2012 TVA Board approval of the possible sale of 1,000 acres of the Muscle Shoals property. In addition, TVA established the Challenged Properties Program

(CPP) in March 2012 to develop strategies for proper handling of underutilized or vacant properties.

Because of the importance of proper maintenance to the safe, efficient, and effective operation of assets, we initiated this audit to evaluate TVA's efforts to identify and mitigate risks associated with its buildings and infrastructure. We determined FM's FAP program is adequately designed to identify and mitigate the risks of building and infrastructure failures, and FM's processes for remediating identified risks are reasonably effective. However, we found TVA's risk exposure from building failures is elevated because the identified risks exclude underutilized properties, and FAP funding has not been adequate to address the risks in the long term. We also identified opportunities to improve some FAP program and related FM processes.

We recommended TVA management take actions to: (1) determine the level of risk exposures TVA can accept from continued building deterioration and provide adequate program funding where possible; (2) identify a process owner or cross-functional team to identify, manage, and mitigate underutilized properties according to CPP guidelines; (3) improve program communications to better define FAP program boundaries and update and coordinate with sites where projects are scheduled or ongoing; (4) leverage or develop tools to centralize asset information, project planning and prioritization, facilities conditions, and lessons learned; and (5) obtain the resources necessary to complete a new database deployment and address weaknesses in the current database. TVA management generally agreed with our recommendations and is taking corrective actions.

Risk for Significant Equipment Failures in River Operations

TVA River Operations and Renewables (ROR) business unit, part of the Generation strategic business unit, is responsible for balancing the competing demands of the Tennessee River and its tributaries with respect to flood-damage control, navigation, dam safety, hydroelectric power production, recreation, water supply, and water quality. Within ROR, Hydro Production manages and operates TVA's 29 conventional hydro production plants and the Raccoon Mountain Pumped-Storage Plant (with a total capacity of 113 generating units). River Operations Engineering (ROE) is responsible for implementing and managing the System and Component Health (SCH) program. The SCH program includes the performance of condition assessments (CA) on individual pieces or groupings of equipment, components, or systems (collectively, "assets") within Hydro Production. According to ROE personnel, the ultimate goal of the process is to maximize equipment and system reliability and availability by maintaining a complete inventory of those assets and their condition.

In response to TVA's July 2011 Enterprise Risk Management update, we assessed the risk for significant equipment failures in ROR. We determined ROE's SCH process is adequately designed to identify potential hydro production equipment failures; however, we found the SCH process could be improved.

We made recommendations to TVA management to:
(1) standardize processes for updating the asset inventory subject to CA and communicating results of CA, (2) reinforce and document the CA review process, (3) provide timely updates to engineering drawings, (4) implement guidelines for

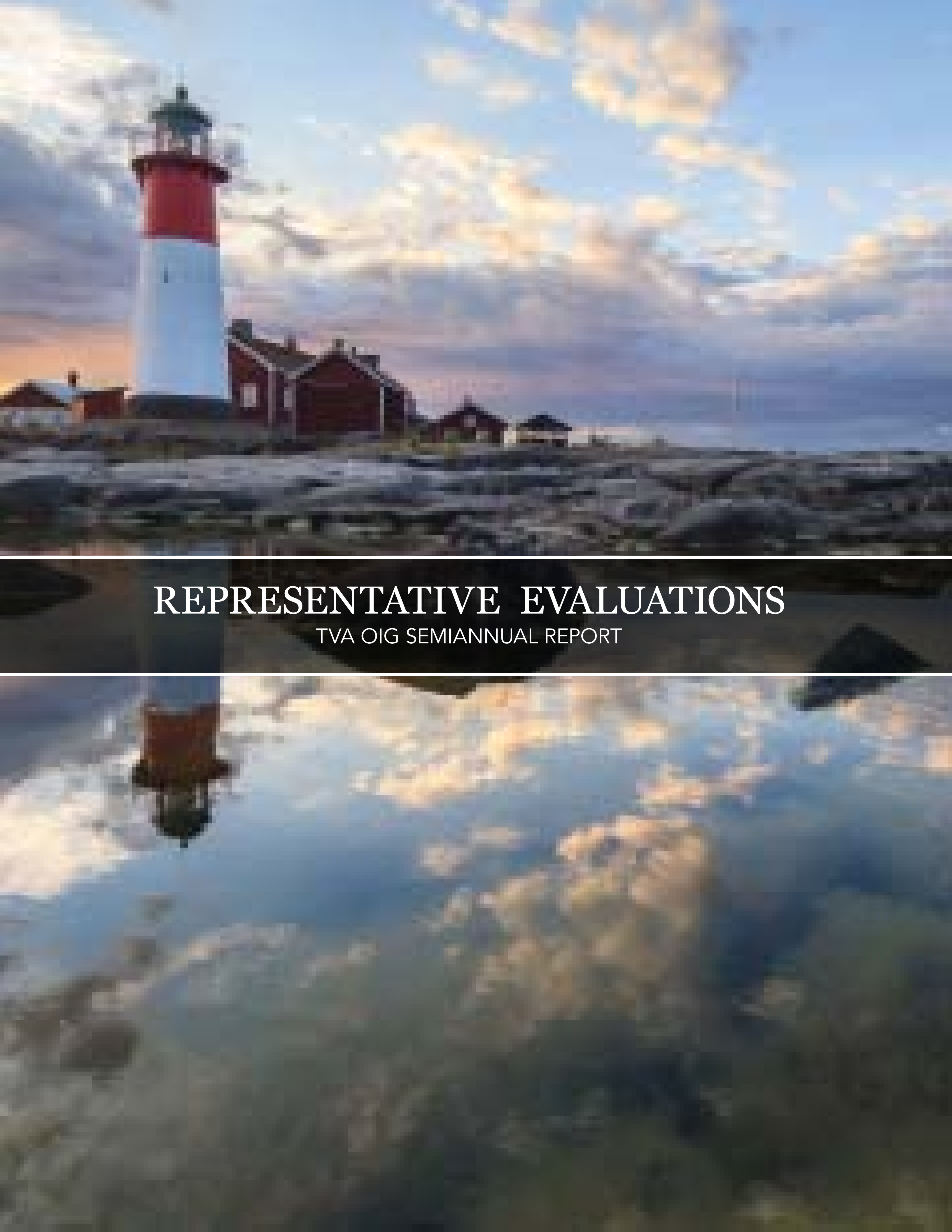
scoring fire protection and suppression systems, (5) continue efforts to correct discrepancies in reports provided to management, and (6) implement an equipment condition assessment access review process. TVA management generally agreed with our recommendations and has taken or is taking actions to address these recommendations.

Browns Ferry Fire Protection

In May 2004, the Nuclear Regulatory Commission (NRC) incorporated the National Fire Protection Association's (NFPA) Standard 805 as a voluntary alternative to the existing fire protection standards as published in Section 50.48, "Fire Protection," and Appendix R of the 10 Code of Federal Regulations (10 CFR 50). On March 4, 2009, the TVA committed to the NRC to transition BFN Plant to NFPA 805 by a license amendment date of March 4, 2012.

TVA has included the BFN NFPA 805 transition project as part of fire protection risk in its Enterprise Risk Management process. TVA did not meet the NFPA 805 transition date for License Amendment Request Submittal of March 2012 and revised its commitment date to March 2013. We reviewed the BFN transition to the NFPA 805 program and determined the Nuclear Power Group's delays in transitioning to NFPA 805 adversely impacted BFN's ability to meet the 2012 commitment date. Specifically, historical indecisiveness coupled with a lack of due diligence and inadequate attention to emerging industry fire protection regulations contributed to revising the commitment date. In addition, the Nuclear Power Group's mitigation strategy, as provided in the Enterprise Risk Management documentation, does not include consideration of the consequences of not meeting the March 2013 deadline, which would include NRC-assessed penalties. TVA management agreed with our findings and has taken action to address our recommendation to develop contingency plans and continue to monitor project activities related to the new commitment date.


Browns Ferry Nuclear Plant

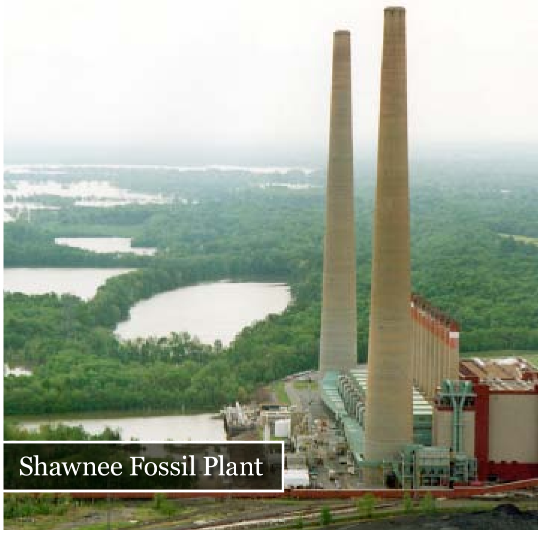


REPRESENTATIVE EVALUATIONS

TVA OIG SEMIANNUAL REPORT

Summary of
REPRESENTATIVE EVALUATIONS

During this reporting period, Evaluations completed six reviews. Three of the reviews were part of a series to evaluate TVA actions to address key risks, including outage scheduling risk, physical assaults risk, and load forecast risk. Evaluations also completed a review of coal terminals supplying TVA and TVA's living allowance. Below is a description of the results for five of the projects completed.



Shawnee Fossil Plant

TVA's Outage Scheduling Risk

As part of a series of reviews to evaluate TVA's actions to address key risks, we reviewed TVA's outage scheduling risk. Outage scheduling was identified as a top five strategic business unit risk in the Internal Process and Procedures Risk category in FY 2011. The risk refers to failure in coordination of the outage schedule for TVA. Uncoordinated generator outages could cause threats to transmission reliability, negative impacts to operation flexibility, and missed opportunities to minimize financial impacts of outages. Outage schedules are coordinated for the business planning time period, which is typically five years. Generator and transmission outages impacting net power delivery to the grid should be scheduled to combine the transmission and generator work into one outage, where possible, meeting NERC compliance, operational flexibility, labor constraints, and total financial impacts through minimizing both replacement power costs and impacts to strategic business unit budgets.

The objective of this review was to evaluate TVA's outage scheduling risk to identify opportunities to improve mitigation strategies and assess whether mitigation strategies are designed appropriately to address the identified risk. We found the mitigation strategy for addressing TVA's outage scheduling risk was designed appropriately and has reduced the risk. However, opportunities exist to improve the outage scheduling process. We found: (1) the control overseeing the Outage Concurrence Process is manual and time consuming; (2) the control in place over quality checks is not being completed; and (3) the Outage Concurrence Process does not align with SPP-30.004, TVA Chief Operating Officer Approved Method to Optimize TVA Asset Availability (Asset Availability Optimization Process) in regard to the use of Asset Availability in entering outages.

We recommended the Vice President, System Planning: (1) work in conjunction with the Asset Availability owners to determine if a control can be added to Asset Availability to prevent outages from being entered without first completing the Outage Concurrence Process, (2) take steps to make sure that quality checks are performed as prescribed in the Outage Concurrence Process, and (3) work in conjunction with the owner for the Asset Availability Optimization Process to address conflict between the Outage Concurrence Process and the Asset Availability Optimization Process to align the process of entering outages into Asset Availability. Management agreed with the findings and recommendations and plans to take actions to address them.

Colbert Fossil Plant

Physical Assaults Risk

As part of a series of reviews to evaluate the TVA actions to address key risks, we reviewed TVA's physical assaults risk. Physical assaults risk was identified in the 2011 Enterprise Risk Management Program. The objective of our review was to evaluate TVA employee, contractor, and visitor physical assaults risk, identifying opportunities to improve mitigation strategies and assess whether mitigation strategies are designed appropriately to address the identified risk. TVA developed a mitigation strategy in order to reduce the risk that included: (1) creating a comprehensive physical security plan, (2) expanding employee education, (3) replacing communication infrastructure and equipment, and (4) implementing a guard program.

Our review found TVA has implemented or is implementing actions to reduce the risk of physical assaults on TVA employees, contractors, and visitors. The mitigations were generally designed appropriately to address the risk. However, TVA identified that workplace-violence incidents are not always reported to TVA Security and Emergency Management. This prevents TVA from recognizing emerging patterns and identifying possible training that could lower the risk of similar future incidents.

We recommended a procedure be created for individuals who receive workplace-violence incident reports detailing which workplace-violence incidents should be reported to TVA Security and Emergency Management along with a uniform way of submitting that information. TVA management agreed with the findings and recommendations and plans to take corrective actions.

TVA's Load Forecast Risk

As part of a series of reviews to evaluate the TVA actions to address key risks, we reviewed

TVA's load forecast risk. Load forecasting is used by power companies to anticipate the amount of power needed to supply the demand.

Load forecast was identified as a top five strategic business unit risk in the Long Range Planning Process Risk Category in FY 2011. The objective of this review was to evaluate TVA's load forecast risk to identify opportunities to improve mitigation strategies and assess whether mitigation strategies are designed appropriately to address the identified risk.

While Economic Load and Revenue Forecast is taking actions to mitigate risk associated with load forecasting, we found opportunities to improve the mitigation strategy documentation. The documented mitigation strategy does not reflect planned actions to improve data integrity or the regular updates to the forecast models and economic drivers. Additionally, we found mitigations are generally designed appropriately. However, we noted Economic Load and Revenue Forecast did not have any compensating controls to prevent inadvertent modifications to data until the Demand & Data Consolidation Process is completed.

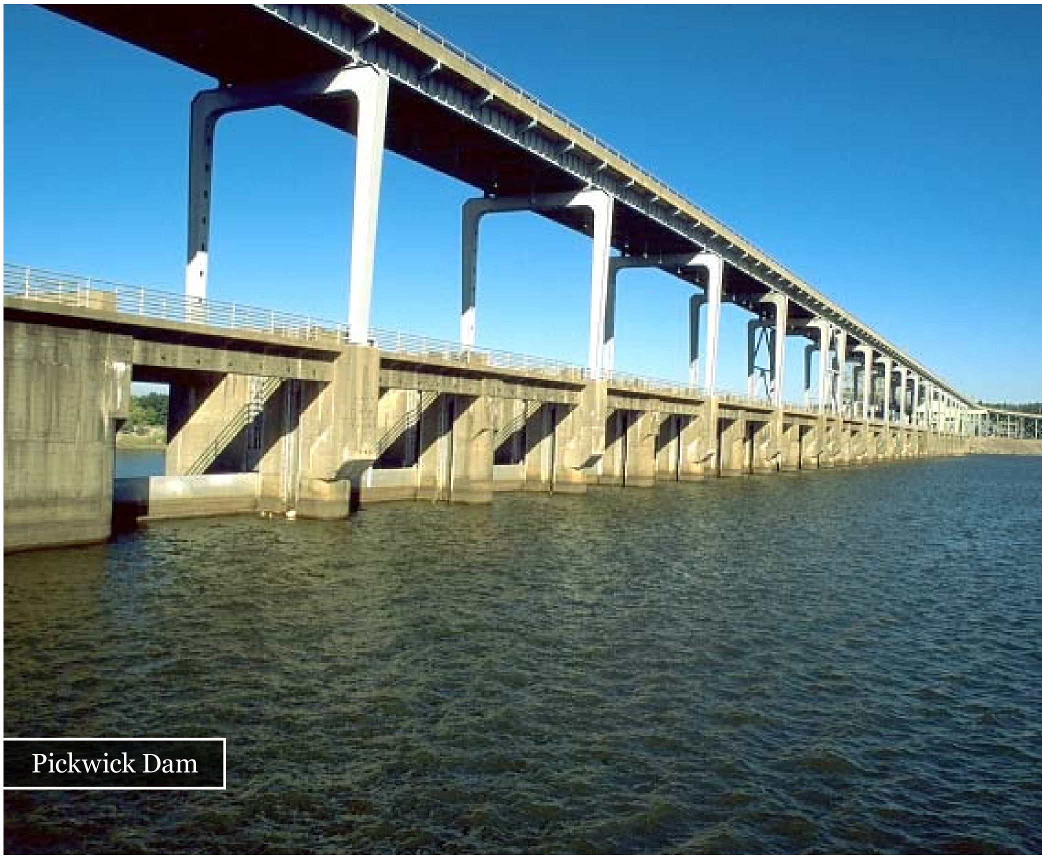
We recommended the Senior Vice President, Strategy, Financial Planning & Business Development, enhance the load forecast documented mitigation strategy to include the mitigations planned or already occurring but not listed as part of the strategy, and implement measures to reduce the likelihood of inadvertent modifications to data until the Demand & Data Consolidation Process is completed. Management agreed with the findings and recommendations and has taken corrective actions.

Coal Terminals Supplying TVA

The OIG performed this coal review because TVA spent approximately $2.3 billion on coal in FY 2011, and coal procurement has historically been at significant risk of fraud. TVA received more than 18 million tons of coal from four terminals between January 2010 and June 2011.

The objective of this review was to determine if TVA is properly monitoring and accounting for coal being shipped to and from terminals. The scope of this review included shipments to and from terminals from January 2010 through June 2011 and flyover inventory adjustments from June 2007 through calendar year 2011.

Based on the results of our review, improvements are needed in both TVA's monitoring


Pickwick Dam

of coal weight and quality and the flyover inventory adjustment process for terminals. Without improvements, TVA's susceptibility to fraud remains high. Moreover, improvements that would reduce TVA's risk in this area were laid out in a fuel assurance plan presented to the OIG prior to the start of FY 2009. The fuel assurance plan, which was developed in part because of our previous coal-related work that demonstrated significant fraud risk, remains partially unimplemented for terminals. The plan lays out actions, such as ensuring accurate certified weighing at the plant and comparisons of weight and sample data that would reduce TVA's coal procurement risk at terminals.

We found TVA has performed limited monitoring of coal weight and quality variance information and scales at TVA's fossil plants need improvements. This impairs TVA's ability to properly monitor and account for coal being shipped to and from the terminals and presents an opportunity for fraud. In addition, investigations are performed for average monthly shipment weight variances that exceed a tolerable range; however, there are variances for individual shipments that also may warrant investigation.

TVA arranges flyover measurements and density checks on coal inventories at the terminals as part of the inventory adjustment process.


Allen Fossil Plant

Several issues related to TVA's flyover adjustment process were identified:

- The current process does not provide accurate data for the coal terminals.
- There were discrepancies between the Fuel Handling Systems group's calculations and Fuels Accounting's calculations when booking the quarterly flyover adjustments. Additionally, some of the adjustments were booked incorrectly.
- The timeliness of communicating inventory adjustments to the terminals could be improved.
- There were differences in the inventory records maintained by the terminals and TVA. In addition, there was no reconciliation between TVA and terminal inventory records, which could lead to TVA paying incorrect storage fees with no method of detection.
- Investigations into inventory adjustment variances were based only on weight.

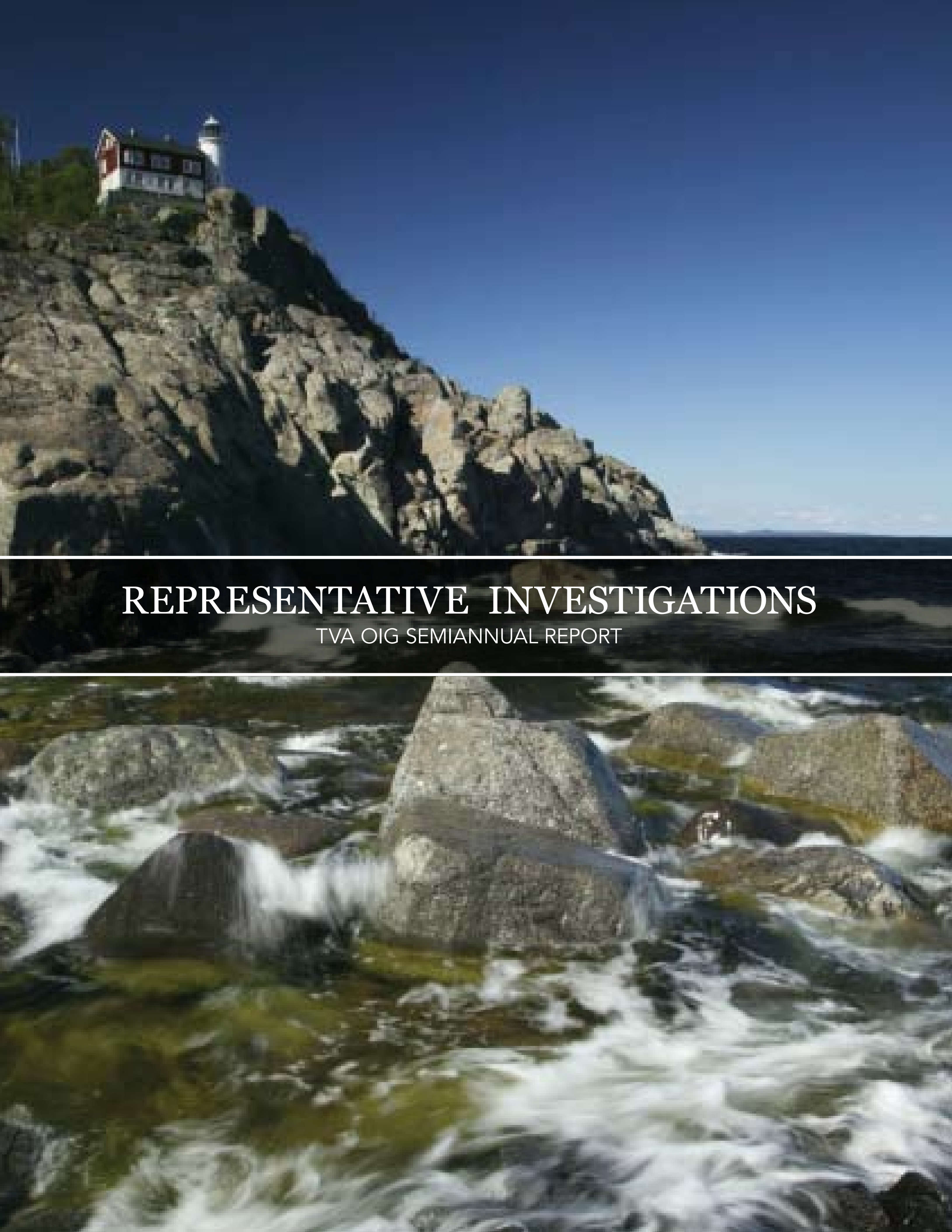
We recommended the Vice President, Coal and Gas Services: (1) continue plans to implement monitoring of terminal inbound shipments from the mine to the terminal, (2) require a review of single shipment weight variances when warranted, (3) implement a solution to correct the flyover process inaccuracies, (4) require a reconciliation of differences between TVA and terminal inventory records be performed on a routine basis, (5) require a review of the dollar values of inventory flyover adjustment to determine if an investigation is necessary, and (6) take actions to decrease the time between when the adjustment is booked by TVA and notification is made to the terminals. We recommended the Director, Business Services, continue to take steps to verify coal terminal inventory adjustments and retain documentation to support the calculations. We also recommended the Vice President, Generation Engineering, certify the scales at the TVA plants that receive coal from terminals and repair or replace the sampler at Gallatin Fossil Plant. Management generally agreed with the findings and recommendations and has taken or plans to take corrective actions.


Widows Creek Fossil Plant

TVA's Living Allowance

From FY 2010 through FY 2012, TVA paid more than $3 million in temporary living allowances, which are included in TVA's relocation program, and eligibility for an allowance is based on meeting policy requirements as well as management approval. If approved, a new or transferring employee may receive financial assistance for temporary living quarters for up to 120 days. TVA's policy states that an employee will receive $1,850 for the first 30 days and $1,550 for each subsequent 30-day period, up to a maximum of $6,500. TVA uses a third-party vendor that provides relocation services to handle the majority of the relocation process for the employee.

As a result of issues with living-allowance benefits for TVA contractors, we initiated a review of TVA's temporary living allowance to determine if employees who received these benefits from FY 2010 through FY 2012 met all TVA and federal eligibility requirements. We found the employees tested during this review met all eligibility requirements. This report did not include any recommendations and was issued for informational purposes only.



REPRESENTATIVE INVESTIGATIONS

TVA OIG SEMIANNUAL REPORT

Summary of
REPRESENTATIVE INVESTIGATIONS

This semiannual period, our investigative results include a former safety manager's conviction on eight counts of major fraud; a former Tennessee county commissioner's guilty plea for conducting a Ponzi scheme based on fraudulent representations that he was involved in the Kingston Fossil Plant cleanup; and a father and son convicted on charges of wire and mail fraud for their involvement with a former president of a local utility. Our investigations also led to a former TVA officer's indictment for federal violations including alleged false statements to TVA and violation of the International Emergency Economic Powers Act, and a former employee's federal indictment for alleged theft. Our administrative results include a workers' compensation case which is estimated to save TVA more than $770,000. Representative highlights of our activities follow.


Watts Bar Nuclear Plant

Former Safety Manager Convicted of Major Fraud for Falsifying Injury Reports at TVA Nuclear Plants

Following a 12-day trial in federal court, a jury convicted a former Stone & Webster Construction, Inc. (SWCI), safety manager of eight counts of major fraud against the United States on November 7, 2012.[1] The jury heard evidence that Walter Cardin—as safety manager for the Shaw Group (formerly SWCI) at BFN, SQN, and WBN plants—provided false and misleading information about injuries at those facilities. The jury heard evidence of more than 80 injuries, including broken bones, torn ligaments, hernias, lacerations, and shoulder, back, and knee injuries Mr. Cardin improperly reported.

The Shaw Group contracted with TVA to provide maintenance and modifications to the three facilities and to provide construction for the BFN Unit 1 reactor restart. Mr. Cardin was convicted of devising a scheme that resulted in false and misleading injury rates and lost-time figures, all of which were used by the Shaw Group to collect safety bonuses worth more than $2.5 million from TVA. He was also convicted of providing the false numbers at the three plants in 2004 and 2005, and at BFN and SQN during 2006.

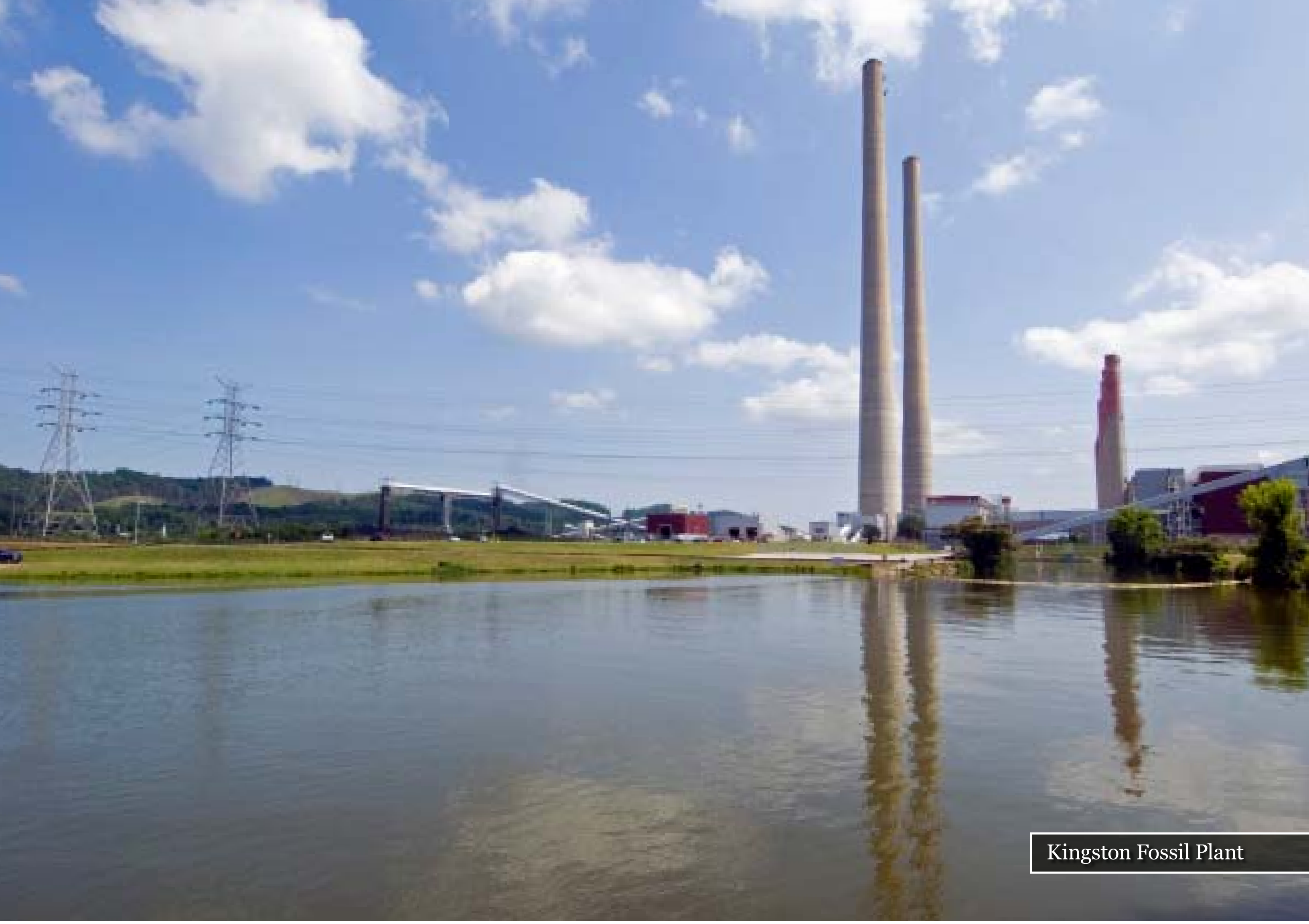
U.S. Attorney Bill Killian stated this conviction "will put all Tennessee Valley Authority contractors on notice that criminal violations to maximize profits with TVA will not be tolerated in the Eastern District of Tennessee."

It should be noted that during 2008, also based on an OIG investigation, a $6.2 million civil settlement was reached between SWCI and the United States, acting through the DOJ and on behalf of TVA. SWCI paid penalties to TVA and DOJ and provided restitution to TVA for the ill-gotten safety bonuses. Additionally, SWCI entered into a "Corporate Integrity and Monitoring Agreement" with TVA OIG.

Individual Purportedly Gathering Funds for Kingston, Tennessee, Cleanup Pleads Guilty in Federal Court

We previously reported a January 2012 13-count Information was filed in federal court charging a former Robertson County, Tennessee, commissioner, Edward Shannon Polen, with five counts

[1] On April 11, 2013, Walter Cardin was sentenced to serve 78 months in prison followed by two years of supervised release.



Kingston Fossil Plant

of bank fraud, three counts each of wire and mail fraud, and two counts of money laundering. On December 10, 2012, Mr. Polen pled guilty to six counts of the Information.

The investigation was precipitated after the OIG received complaints regarding fraudulent investment schemes against Tennessee Valley residents and the negative impact the scheme might have on TVA's reputation. Our investigation revealed Mr. Polen fraudulently obtained at least $16 million dollars from investors by falsely promising to invest their money in one or more of three sham investment opportunities. Those investments included the purchasing and reselling of John Deere equipment, purchasing materials for municipal greenway projects, and purchasing materials/supplies to assist with the cleanup of the coal ash spill at TVA's Kingston Fossil Plant. The coal ash cleanup scheme was the largest scheme run by Mr. Polen with the greatest dollar loss to investors. The victims of the coal ash scheme thought they were helping TVA fund the clean-up work at Kingston.

Mr. Polen promised the investments would generate significant profits, knowing the investments were entirely fictitious. He had held various official and political positions in Robertson County, and he used his reputation to convince victims he had access to insider information enabling his involvement in the investment opportunities.

Mr. Polen defrauded approximately 77 victims, including 4 nonprofit organizations, of at least $16 million dollars. Some victims' money was used to repay other victims, as is normal for a Ponzi scheme; however, a large portion of the victims' money was used to pay Mr. Polen's immense gambling debts.

TVA OIG was the lead investigative agency, joined by the Internal Revenue Service Criminal Investigation Division (IRS CID); Tennessee Bureau of Investigation; Special Inspector General for the Troubled Asset Relief Program; Hendersonville, Tennessee, Police Department; Regional Organized Crime Information Center; and the Tennessee Attorney General's Office.

Municipal-Utility President and Contractors Convicted

On January 23, 2013, a jury found Tommy L. Walton II guilty on nine counts of mail fraud and seven counts of wire fraud after a week-long federal trial. According to testimony at trial, on November 3, 2008, Mr. Walton II was hired as a consultant for the Clarksville, Tennessee, Department of Electricity (CDE) by Rick R. Ingram, Sr., then CDE's president. From that time through June 29, 2009, Mr. Walton II and his firm, IntelliNet Consulting, LLC, invoiced and received from the utility more than $150,000. The payment of each invoice was approved by Mr. Ingram; and, during that same time, Mr. Walton II paid $51,500 directly to Mr. Ingram or one of Mr. Ingram's creditors.

The payments made by Mr. Walton II to Mr. Ingram were not disclosed to members of CDE's Board or employees. The United States alleged the payments from Mr. Walton II were bribes and kickbacks, and the concealment of these payments from the utility deprived it and its customers of the honest services of Mr. Ingram.

As previously reported, during May 2012, Mr. Ingram pled guilty to two counts each of mail and wire fraud related to this scheme and to a separate scheme involving Mr. Walton II's father, Tommy L. Walton, Sr. (discussed below). Mr. Ingram testified at Mr. Walton II's trial that he would not have approved the payment of invoices submitted to the utility by Mr. Walton II and IntelliNet Consulting had Mr. Walton II and IntelliNet Consulting not continued making payments to Mr. Ingram and Mr. Ingram's creditor.

Mr. Walton, Sr.—whose company, Intelligent Surveillance (unrelated to his son's business), also contracted with the utility—participated in a similar scheme with Mr. Ingram and pled guilty to eight counts of mail fraud and five counts of wire fraud on January 14, 2013. Sentencing hearings will be scheduled for these three defendants. Each faces up to 20 years in prison, fines of up to $250,000, and orders requiring payments of restitution to the utility. CDE

Wilson Dam

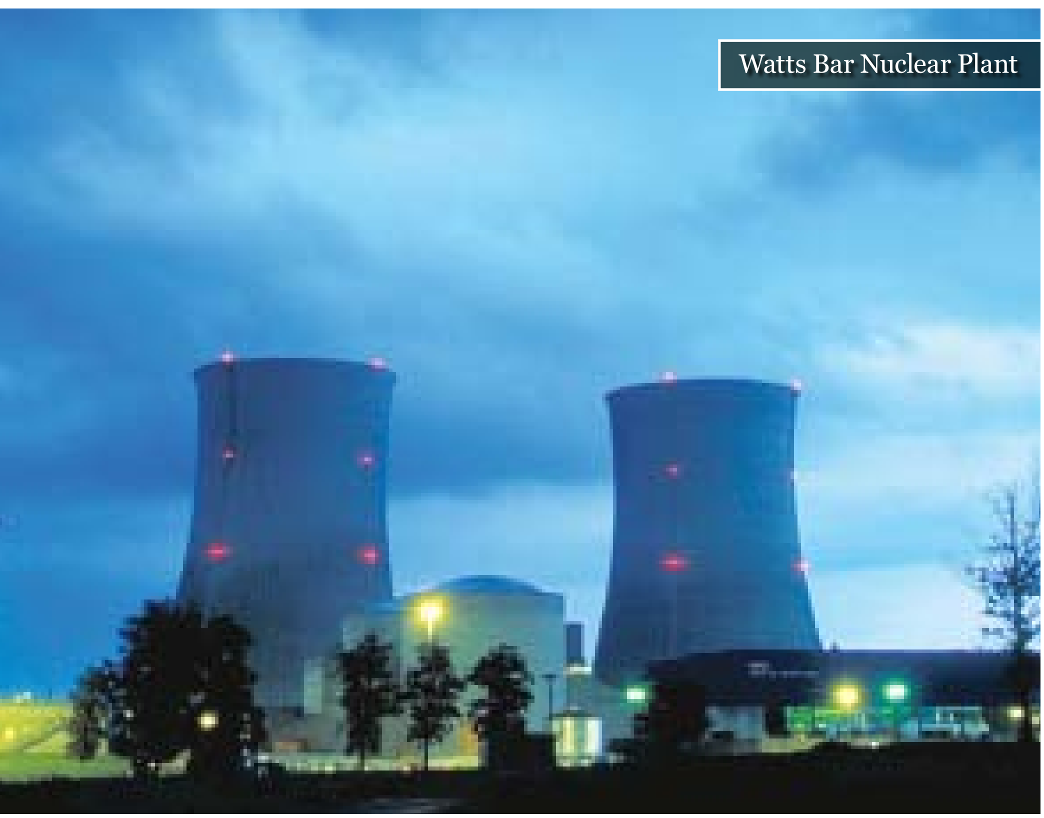
requested TVA OIG conduct this investigation, and CDE's Board gave its full cooperation.

Former Nuclear Construction Vice President Indicted in Federal Court

As a result of an investigation conducted by U.S. Homeland Security Investigations, the IRS CID, the FBI, and the TVA OIG, a former WBN Unit 2 Vice President (VP), Masoud Bajestani, was indicted on four felony charges by a federal grand jury in Knoxville, Tennessee, on December 4, 2012. The indictment alleges Mr. Bajestani violated the International Emergency Economic Powers Act and made false statements to TVA. Mr. Bajestani was arrested by federal agents, including a TVA OIG Senior Special Agent, upon his arrival in Atlanta, Georgia, from Dubai on February 3, 2013. Mr. Bajestani pled not guilty in court on February 4, 2013.

The indictment charges Mr. Bajestani filed a false document with TVA to withdraw $1.5 million from his deferred compensation account when he was employed as WBN Unit 2 VP and that Mr. Bajestani then conspired with others to send $600,000 of that amount to Iran for financial investment. Economic sanctions have been imposed against Iran, and it is unlawful to make financial investments there without authorization from the U.S. Office of Foreign Assets Control.

A superseding indictment was filed the day after Mr. Bajestani's arrest, asserting violations already mentioned and adding two counts of filing false tax returns, three counts of failure to report foreign bank accounts, and two counts of international money laundering. Mr. Bajestani was subsequently released, being required to post $1 million bond, submit to electronic monitoring, and execute conditional trust deeds allowing for forfeiture of two properties in the event of a violation of any release condition.

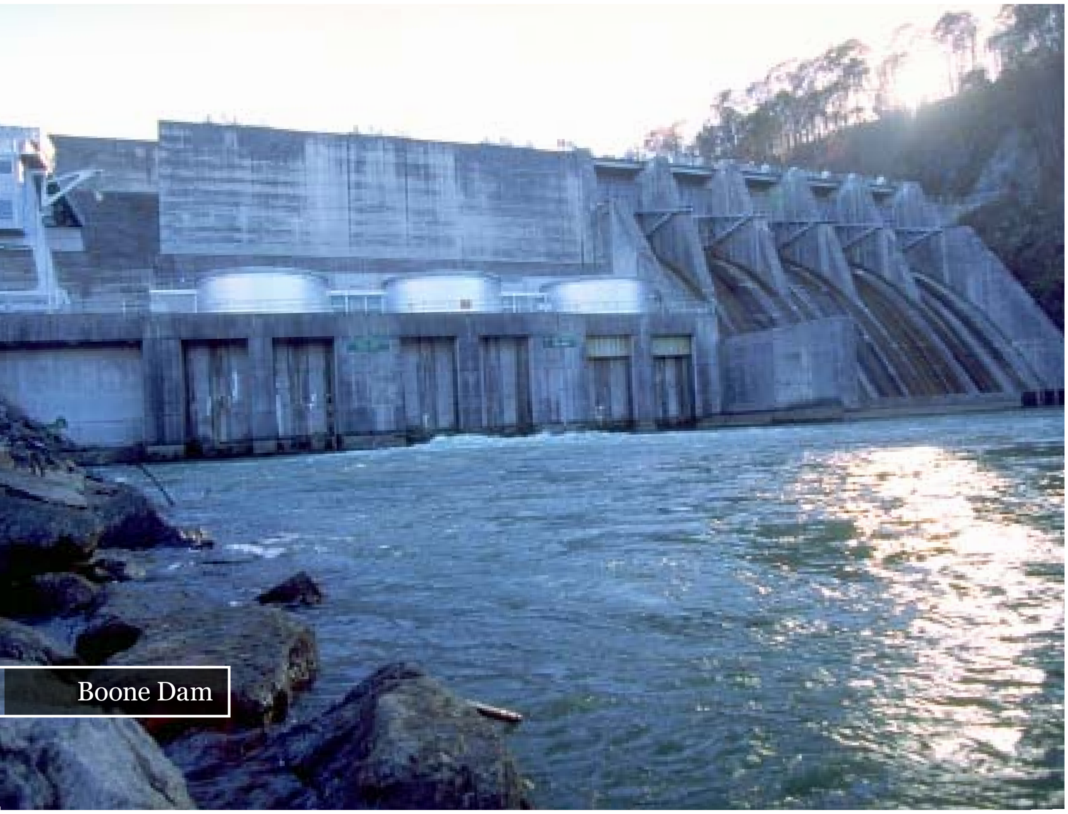


Watts Bar Nuclear Plant

Former Employee Indicted on Federal Theft Charge

Based on concerns from TVA management, TVA OIG investigated questionable charges exceeding $10,000 on a TVA corporate fuel card assigned to a Louisville, Tennessee, Material Handler. A review of charges showed suspicious activity, including 71 transactions at stations across East Tennessee during June 2012 and 25 transactions during the first eight days of July 2012.

Our investigation found the individual fueled his personal vehicle and then enabled others to fuel their vehicles with his



Boone Dam

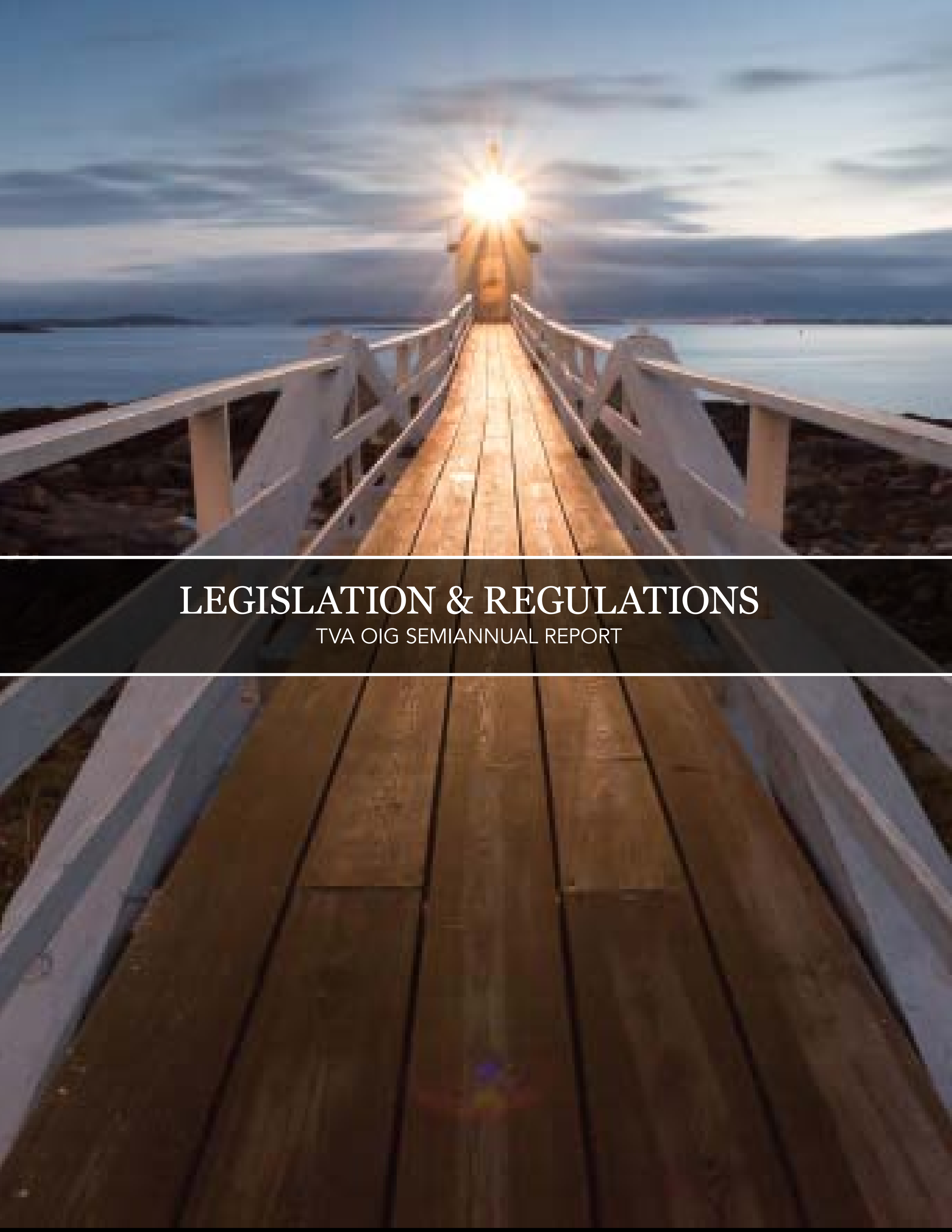
TVA card and pay him less than retail cost for their gasoline. As a result of our findings to-date, the individual, Jason R. King, was charged on February 5, 2013, with a one-count indictment in U.S. District Court for theft of government property (converting the fuel card to his personal benefit). He has been released on bond pending trial.

Former TVA Employee's Office of Workers Compensation Program (OWCP) Benefits Terminated, Resulting in Costs Savings Exceeding $770,000

An OWCP benefits recipient was successfully prosecuted in the State of Kentucky on two counts of trafficking controlled substances. The U.S. Department of Labor (DOL) oversees OWCP, and we provided the DOL with information needed to terminate the individual's benefits. Our inquiry indicated the controlled substances Oxycodone and Opana that the former employee misappropriated were paid for through his OWCP benefits. Based on that violation, the individual's benefits were permanently forfeited. Avoided costs are estimated at $770,234.

Supervisor Disciplined for Soliciting Loans from Subordinates

The OIG received an allegation a supervisor violated a federal ethics rule (5 C.F.R. §2635.702, Use of Public Office for Private Gain) and TVA policy by seeking to benefit personally from his official position by requesting personal loans from subordinates. Our investigation found the supervisor asked for and received interest-free loans from two subordinates during 2006-2007. Feeling the pressure of his authority, two subordinates loaned him a total of $1,700 ($1,600 from one employee; $100 from another). During the time the loans were made and throughout our recent inquiry, the supervisor completed five sessions of TVA annual ethics training and received five TVA WP payouts grossing more than $23,000. His repayments to the subordinates, however, did not begin until 2012 and totaled $750 on the larger loan and nothing on the smaller one. As a result of our report to management, the supervisor was instructed to settle the indebtedness and provide written notification from the lenders. He also received a written warning and served a two-week unpaid suspension. He later resigned in lieu of termination. The U.S. Attorney's office declined prosecution in favor of administrative remedies available to TVA.



LEGISLATION & REGULATIONS

TVA OIG SEMIANNUAL REPORT

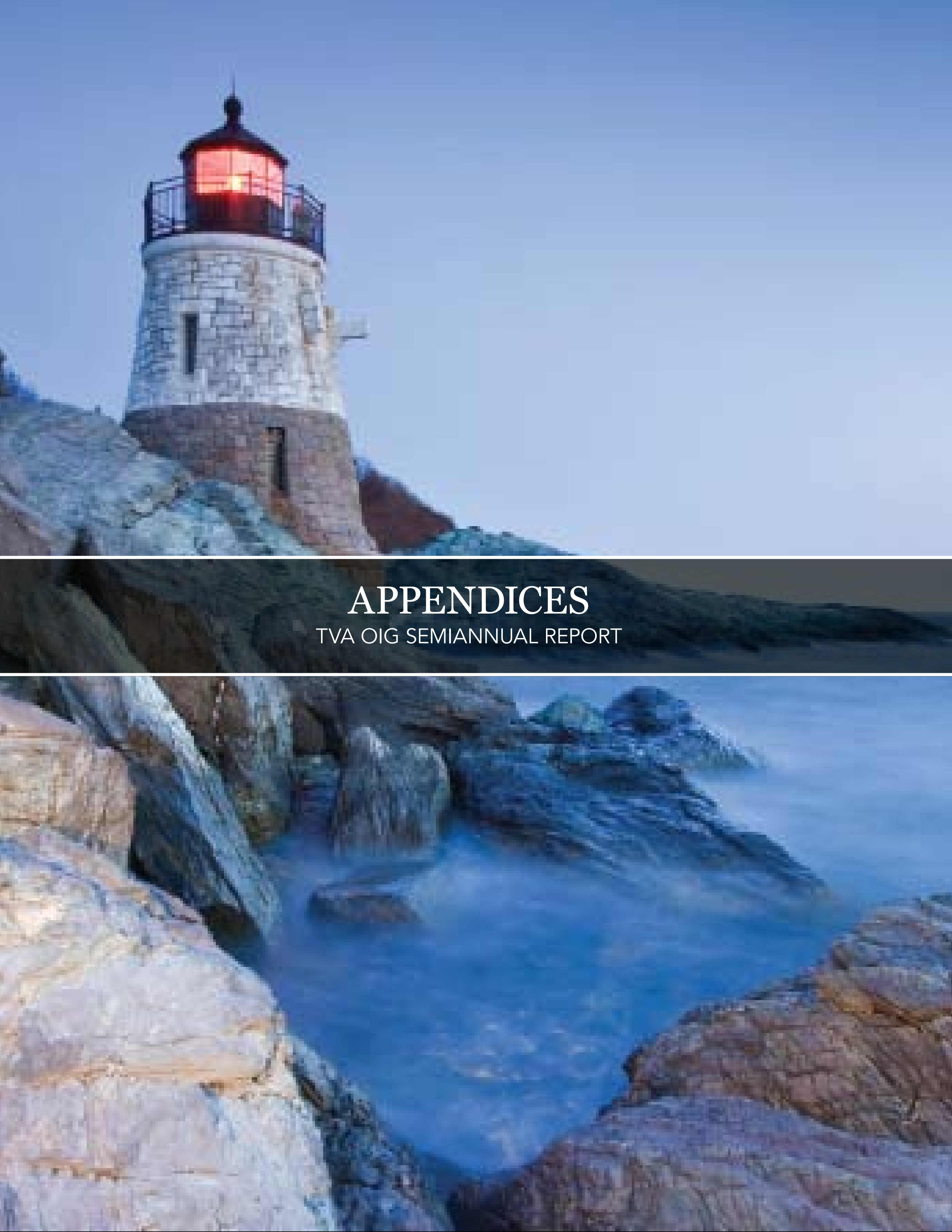
LEGISLATION & REGULATIONS

Section 4(a) of the Inspector General Act of 1978, as amended, provides that the Inspector General shall review existing and proposed legislation and regulations relating to programs and operations of such establishment and make recommendations in the semiannual reports…concerning the impact of such legislation or regulations on the economy and efficiency in the administration of such programs and operations administered or financed by such establishment or the prevention and detection of fraud and abuse in such programs and operations.

In this section of our semiannual report, it is our intent to address only current and pending legislation which relates to the economy or efficiency of TVA operations when we have recommendations or comments to make to Congress regarding the legislation. At times, we may direct recommendations to general positions and issues, particularly when there are multiple bills dealing with the issue. At other times, we anticipate making recommendations relating to particular statutes and bills and their particular wording.

During this reporting period, we are not making any recommendations to Congress regarding current or pending legislation.

Paradise Fossil Plant



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	45
Section 5(a)(1)	Significant Problems, Abuses, and Deficiencies	23-43
Section 5(a)(2)	Recommendations With Respect to Significant Problems, Abuses, and Deficiencies	23-43
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 39-43
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	23-43
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	Appendix 9

APPENDIX 2

OIG AUDIT REPORTS • Issued During the Six-Month Period Ended March 31, 2013

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
CONTRACT AUDITS				
2012-14395 12/13/2012	Jacobs Engineering Group, Inc.	$15,667	$0	$0
2011-14327 01/18/2013	Day & Zimmermann NPS, Inc.	$215,042	$0	$0
2012-14576 01/18/2013	Cartus Corporation	$347,359	$0	$0
2011-14326 01/23/2013	G&A Environmental Contractors, Inc.	$254,060	$0	$0
2012-14510 02/22/2013	AREVA NP, Inc.	$430,221	$0	$0
CORPORATE GOVERNANCE AND FINANCE AUDITS				
2012-14825 11/07/2012	Agreed-Upon Procedures for TVA FY 2012 Performance Measures	$0	$0	$0
2012-14886 03/11/2013	TVA Compliance for FY 2012 with the Improper Payments Information Act of 2002, as Amended	$0	$0	$0
2012-14886-01 03/13/2013	Process Improvements for TVA's Compliance with the Improper Payments Information Act of 2002, as Amended	$0	$0	$0
2012-14607 03/27/2013	TVA Meter Testing	$0	$0	$0
OPERATIONAL AUDITS				
2010-13627-01 01/18/2013	Risk of Significant Equipment Failures in River Operations	$0	$0	$0
2012-14567 01/30/2013	Building and Infrastructure Failure Risks	$0	$0	$0
2011-13895 02/06/2013	Browns Ferry Nuclear Plant Fire Protection	$0	$0	$0
INFORMATION TECHNOLOGY AUDITS				
2012-14546 11/16/2012	2012 Federal Information Security Management Act Evaluation	$0	$0	$0
2012-14596 12/20/2012	River Forecast Center Cyber Security Audit	$0	$0	$0
2012-14618 01/23/2013	Unix Operating System Security Audit	$0	$0	$0
2012-14437 02/05/2013	TVA NERC CIP Critical Cyber Asset Identification and Self-Reporting Gap Analysis	$0	$0	$0
TOTAL AUDITS (16)		$ 1,262,349	$0	$0

OIG EVALUATION REPORTS • Issued During the Six-Month Period Ended March 31, 2013

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
2011-13839 11/05/2012	Coal Terminals Supplying TVA	$0	$0	$0
2012-14506 12/13/2012	Physical Assaults Risk	$0	$0	$0
2012-14776 12/13/2012	TVA's Living Allowance	$0	$0	$0
2012-14507 01/17/2013	TVA's Load Forecast Risk	$0	$0	$0
2012-14577 01/23/2013	TVA's Outage Scheduling Risk	$0	$0	$0
2012-14535 03/21/2013	Master Key Program Management – Energy Delivery	$0	$0	$0
TOTAL EVALUATIONS (6)		**$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.


Fontana Dam

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	$903,698	$0
B. Which were issued during the reporting period	5	$1,262,349	$0
Subtotal (A+B)	6	$2,166,047	$0
C. For which a management decision was made during the reporting period	6[1]	$2,166,047	$0
1. Dollar value of disallowed costs	6	$2,039,310	$0
2. Dollar value of costs not disallowed	1	$126,737	$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

[1] 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	$9,100,000
B. Which were issued during the reporting period	0	$0
Subtotal (A+B)	2	$9,100,000
C. For which a management decision was made during the reporting period	2	$9,100,000
1. Dollar value of recommendations agreed to by management	0	$0
2. Dollar value of recommendations not agreed to by management	2	$9,100,000
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

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 21 audits and 3 evaluations reported in previous semiannual reports were not completed. Presented below for each audit and evaluation are the report number and date and a brief description of final actions planned to resolve the open recommendations and the date management expects to complete final action.

Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2007-11216 06/02/2008	**Review of TVA Actions to Protect Social Security Numbers and Eliminate Their Unnecessary Use** 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.
2008-12007 05/13/2009	**Distributor Review of Monroe County Electric Power Authority** 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 September 30, 2013.
2008-12040 05/13/2009	**Distributor Review of Lewisburg Electric System** 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 September 30, 2013.
2008-12127 09/24/2009	**Hydroelectric Plant Automation – General, Physical, and Security Controls Review** 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 September 30, 2015.
2009-12699 12/09/2010	**Follow-up Review of TVA's Role as a Rate Regulator – Use of Electric Revenues for Nonelectric Purposes** TVA management agreed to determine when distributor reserves become excessive and should be returned to the ratepayers in the form of rate reductions. Management expects final action to be completed by September 30, 2013.
2010-13366 04/05/2011	**Information Technology Organizational Effectiveness** TVA management agreed with the audit findings and has provided detailed plans and target dates to implement the audit recommendations. Management expects to complete final action by December 31, 2013.
2010-13132 06/15/2011	**Review of Physical and Logical Access for Contractors** TVA agreed to (1) create a cross-reference matrix of TVA roles to assets with the associated qualification/background requirements needed to gain access to that asset and develop a process to restrict contractor access to sensitive data and assets until the proper clearances have been obtained and (2) ensure that requests for master keys by Energy Delivery are sent to Physical Security to verify the proper security clearance has been obtained prior to issuing the key. Management expects to complete final action by December 31, 2014.
2010-13285 11/16/2011	**Distributor Audit of Volunteer Energy Cooperative** TVA management agreed to work with Volunteer to address identified instances of noncompliance in the areas of use of revenues, financial reporting to TVA, and internal controls. TVA management also agreed to address two issues related to oversight of distributors. Management expects to complete final action by September 30, 2013.
2011-13760 11/17/2011	**Federal Information Security Management Act Evaluation** TVA management agreed to develop a personal identity verification plan that aligns with federal guidance for the use of personal identity verification. Management expects to complete final action by August 31, 2013.

AUDIT AND EVALUATION REPORTS WITH CORRECTIVE ACTIONS PENDING (CONTINUED)

Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2010-13656 12/20/2011	**Review of TVA Demurrage Costs** TVA agreed to review its contracts with Kinder Morgan and consult with the Office of the General Counsel to determine the feasibility of recovering demurrage charges. Based on a thorough review of historical records and support, TVA will seek $451,870 from Kinder Morgan related to demurrage charges accrued between 2002 and 2012. Management expects to complete final action by December 31, 2013.
2010-13659 03/22/2012	**Distributor Audit of Meriwether Lewis Electric Cooperative** TVA management agreed to recommend the TVA Board formally approve a use of revenues policy which expressly approves distributor participation in the United States Department of Agriculture Rural Economic Development Loan and Grant Program and use electric funds for economic development. Management expects to complete final action by September 30, 2013.
2011-14177 04/23/2012	**Regional Operations Center and System Operations Center Cyber Security Audit** TVA management agreed to review the (1) devices for compliance with configuration management best practices, (2) research using Secure Shell for vendor access, and (3) monitor all production servers using the configuration management tool. Management expects to complete final action by February 28, 2014.
2010-13104-01 06/21/2012	**Pressures On, Inc.** On June 11, 2012, Supply Chain informed the OIG they plan to pursue recovery of $4,145,909 from the contractor less any unsupported costs for which the contractor submits additional documentation not previously provided to the OIG during the audit. Management expects to complete final action by June 21, 2013.
2010-13657 06/29/2012	**Distributor Audit of Memphis Light, Gas and Water Division** TVA and Memphis management agreed to (1) review Memphis' processes for adjustments to customer accounts and make corrections as necessary; (2) review accounts for misclassifications and reclassify, as appropriate; (3) review customer usage and install demand meters, as necessary; (4) take action related to customer contract demand, its inclusion and accuracy in the system and the need for customer contracts; and (5) obtain and retain manufacturing and enhanced growth credit certifications. Management expects to complete final action by June 28, 2013.
2012-14419 08/17/2012	**Controls for Handling TVA Private Information - SHPS** TVA management agreed to issue a supplement to the SHPS contract to include security requirements and determine an alternative method for sending files that contain social security numbers and supplement the SHPS contract to reflect the new method for sending files. Management expects to complete final action by June 28, 2013.
2010-13347 09/10/2012	**Bechtel Power Corporation** On November 19, 2012, Supply Chain informed the OIG they plan to pursue recovery of $1,449,752. Management expects to complete final action by September 10, 2013.

AUDIT AND EVALUATION REPORTS WITH CORRECTIVE ACTIONS PENDING (CONTINUED)

Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2011-14158 **09/18/2012**	**Craft Labor Staffing** TVA management agreed to (1) reassess the risk severity and mitigation strategies to verify risk severity and determine whether additional or alternative mitigation actions need to be implemented to align with current management initiatives such as "Diet and Exercise"; (2) update enterprise risk management documentation to only reflect those mitigation strategies that are planned or are being utilized; (3) with respect to the risk of craft labor shortages arising from a shrinking labor pool, identify: (a) additional options for attracting new entrants to the trades and labor workforce and (b) opportunities where craft labor could be reduced; (4) collaborate with Risk Management to avoid duplication of risk across enterprise risk management categories and assess whether gaps occur in mitigation strategies; and (5) establish an internal process for monitoring the risk, severity, and mitigation actions when changes occur in the business environment and on a more frequent basis than semiannually. Management expects to complete final action by August 31, 2013.
2012-14425 **09/24/2012**	**TVA Protection of Private Information** TVA agreed to provide awareness and training to all employees regarding protecting privacy information, perform quality checks on data entered into the electronic data management system, update the employee discipline policy to include mishandling of privacy information and inform all employees of the changes, increase the frequency of general file and print servers scans to monthly, perform after-hours clean desk reviews, and ensure proper controls are implemented in the new Enterprise Content Management solution. Management expects to complete final action by May 29, 2015.
2011-14225 **09/26/2012**	**Hartford Steam Boiler** On August 20, 2012, Supply Chain informed the OIG they plan to pursue recovery of $679,370 in overbillings. Management expects to complete final action by September 20, 2013.
2011-14244 **09/28/2012**	**TVA's Direct Load Control Program** TVA management agreed to (1) develop a replacement option strategy, including meeting with the "Cycle and Save" participants, and seek potential options; and (2) audit each distributor participating in the Direct Load Control Program, per the terms of the contract to determine the effectiveness of installed switches, and modify distributor credit calculations, accordingly, per the terms of the current contract. Management expects to complete final action by September 30, 2013.
2011-14477 **09/28/2012**	**TVA's Financial Trading Program** TVA management provided its cost/benefit analysis, qualitative assessments of operational and reputational risk, and evaluation of new performance metrics to the OIG. Management also agreed to generate a report periodically to comply with management oversight needs. After discussions with TVA management, the OIG informed management it planned to obtain the services of a consultant to provide a third-party review of the findings and corrective actions taken prior to closing the recommendations. Final action is expected by September 28, 2013.
2008-11829 **06/02/2010**	**Review of TVA Records Retention** TVA agreed to continue current plans to replace the Electronic Data Management System. Management expects final action to be completed by May 29, 2015.

AUDIT AND EVALUATION REPORTS WITH CORRECTIVE ACTIONS PENDING (CONTINUED)

Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2009-12991 06/21/2011	**Review of TVA Groundwater Monitoring at Coal Combustion Products Disposal Areas** TVA agreed to continue with the assessment plan and initiate corrective actions for Cumberland and Gallatin Fossil plants. Management expects to complete final action by June 21, 2014.
2012-14531 09/28/2012	**Completion of PowerPlant's Project/Portfolio Management** TVA agreed to evaluate the current project management tools being used today and the cost-benefit of adding PowerPlant functionality. TVA agreed to conduct individual and/or classroom training on an as-needed basis during 2013 and has begun the process of updating and refining the PowerPlant User Guide. The User Guide and Helpful Hints are being made available on the PowerPlant Web site for easy access by all users. TVA agreed to develop a communication strategy for system changes, upgrades and modifications. A newsletter has been developed and the reinstatement of the PowerPlant User Group is being studied to improve communications as key decisions are made. Management expects to complete final action by September 30, 2014.


John Sevier Dam

APPENDIX 5

INVESTIGATIVE REFERRALS AND PROSECUTIVE RESULTS[1]

Referrals	
Subjects Referred to U.S. Attorneys	13
Subjects Referred to State/Local Authorities	0
Results	
Subject Indicted	2
Subjects Convicted	4
Pretrial Diversion	0
Referrals Declined	16

[1] These numbers include task force activities and joint investigations with other agencies.

Blue Ridge Dam

HIGHLIGHTS – STATISTICS

	MAR 31, 2013	SEPT 30, 2012	MAR 31, 2012	SEPT 30, 2011	MAR 31, 2011
AUDITS					
AUDIT STATISTICS					
Carried Forward	32	35	34	46	40
Started	23	28	23	16	29
Canceled	(1)	(6)	(2)	(2)	(3)
Completed	(16)	(25)	(20)	(26)	(20)
In Progress at End of Reporting Period	38	32	35	34	46
AUDIT RESULTS (Thousands)					
Questioned Costs	$1,262	$11,708	$5,110	$1,327	$4,846
Disallowed by TVA	$2,039	$9,153	$5,691	$655	$1,303
Recovered by TVA	$559	$4,168[1]	$1,143[2]	$326	$763
Funds To Be Put To Better Use	$0	$10,204	$6,702	$4,945	$24,963
Agreed to by TVA	$0	$1,235	$9,558	$20,005	$7,450
Realized by TVA	$145	$1,235	$2,441[3]	$1,162	$12,750[4]
OTHER AUDIT-RELATED PROJECTS					
Completed	7	10	9	19	13
Cost Savings Identified/Realized (Thousands)	$0	$0	$0	$0	$0
EVALUATIONS					
Completed	6	6	1	8	3
Cost Savings Identified/Realized (Thousands)	$0	$0	$0	$0	$0
INVESTIGATIONS[5]					
INVESTIGATION CASELOAD					
Opened	134	148	178	190	190
Closed	105	157	202	228	161
In Progress at End of Reporting Period	160	128	146	163	199
INVESTIGATIVE RESULTS (Thousands)					
Recoveries	$0	$4,416.4	$17.5	$8	$2,144
Savings	$770.2	1,454.7	0	0	2,515
Fines/Penalties	$0	0.3	$1.7	1	453
Other Monetary Loss	$0	$83.4	$496,500	$9,693[6]	
MANAGEMENT ACTIONS					
Disciplinary Actions Taken (No. of Subjects)	16	11	19	23	7
Counseling/Management Techniques Employed (No. of Cases)	14	20	24	18	24
Debarment	0	0	2	0	1[7]
PROSECUTIVE ACTIVITIES (No. of Subjects)					
Referred to U.S. Attorneys	13	12	14	22	22
Referred to State/Local Authorities	0	7	1	3	1
Indicted	2	1	5	6	1
Convicted	4	1	4	5	1
Pretrial Diversion	0	0	1	1	0

[1] Includes $109,054 recovered in excess of amounts decided by management.
[2] Includes $198,352 recovered in excess of amounts decided by management.
[3] Includes $18,474 savings realized in excess of amounts decided by management.
[4] Includes $304,036 savings realized in excess of amounts identified in the audits.
[5] These numbers include task force activities and joint investigations with other agencies.
[6] Category added in semiannual period ended September 30, 2011.
[7] Category added in semiannual period ended March 31, 2011.

APPENDIX 7

GOVERNMENT CONTRACTOR AUDIT FINDINGS

The National Defense Authorization Act for Fiscal Year 2008, P.L. 110-181, requires each Inspector General appointed under the Inspector General 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, OIG issued no contract review reports under this requirement.

APPENDIX 8

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. TVA OIG underwent its most recent peer review of its audit organization for the period ended September 30, 2010. The review was performed by an ad hoc team appointed by the Council of Inspectors General on Integrity and Efficiency and led by the U.S. Department of Education (Education) Office of the Inspector General (OIG). 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 fiscal year 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, 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

Investigative operations undergoes an external peer review, Quality Assessment Review (QAR), at least once every three years. During the semiannual period ended September 30, 2010, the Office of Personnel Management OIG conducted a QAR of the TVA OIG Investigative Operations. The Office of Personnel Management 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.

PEER REVIEW CONDUCTED OF ANOTHER OIG

National Passenger Railroad Corporation (Amtrak) OIG Audit Organization

The TVA OIG completed a peer review of the audit operations of Amtrak OIG. We issued our final report to the Amtrak OIG on February 14, 2013. We reported that in our opinion, the system of quality control for the Amtrak OIG audit organization, in effect for the12-month period ended September 30, 2012, had been suitably designed and complied with to provide the Amtrak OIG with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Accordingly, the Amtrak OIG received a peer review rating of pass. Amtrak OIG has posted its peer review report on its Web site at http://www.amtrakoig.gov.

Photograph By Richard Thornton / Shutterstock.com

GLOSSARY

TVA OIG SEMIANNUAL REPORT

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.

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.

MANAGEMENT DECISION – 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.

ABBREVIATIONS & ACRONYMS

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

BFN .... Browns Ferry Nuclear Plant
CA .... Condition Assessments
CDE .... Clarksville, Tennessee, Department of Electricity
CIP .... Critical Infrastructure Protection
CPP .... Challenged Properties Program
DOJ .... U.S. Department of Justice
DOL .... U.S. Department of Labor
FAP .... Facilities Asset Preservation
FISMA .... Federal Information Security Management Act
FM .... Facilities Management
FTP .... Financial Trading Program
FY .... Fiscal Year
IPIA .... Improper Payment Information Act
IRP .... Integrated Resource Plan
IRS CID .... Internal Revenue Service Criminal Investigation Division
IT .... Information Technology
NERC .... North American Electric Reliability Corporation
NFPA .... National Fire Protection Association
NRC .... Nuclear Regulatory Commission
OIG .... Office of the Inspector General
OWCP .... Office of Workers' Compensation Programs
QAR .... Quality Assessment Review
ROE .... River Operations Engineering
ROR .... River Operations and Renewables
SCH .... System and Component Health
SERC .... SERC Reliability Corporation
SQN .... Sequoyah Nuclear Plant
SWCI .... Stone & Webster Construction, Inc.
TVA .... Tennessee Valley Authority
TVARS .... Tennessee Valley Authority Retirement System
WBN .... 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 and 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). You may report your concerns anonymously or you may request confidentiality.

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.

Office of the Inspector General
TENNESSEE VALLEY AUTHORITY
Semiannual Report
October 1, 2012 - March 31, 2013