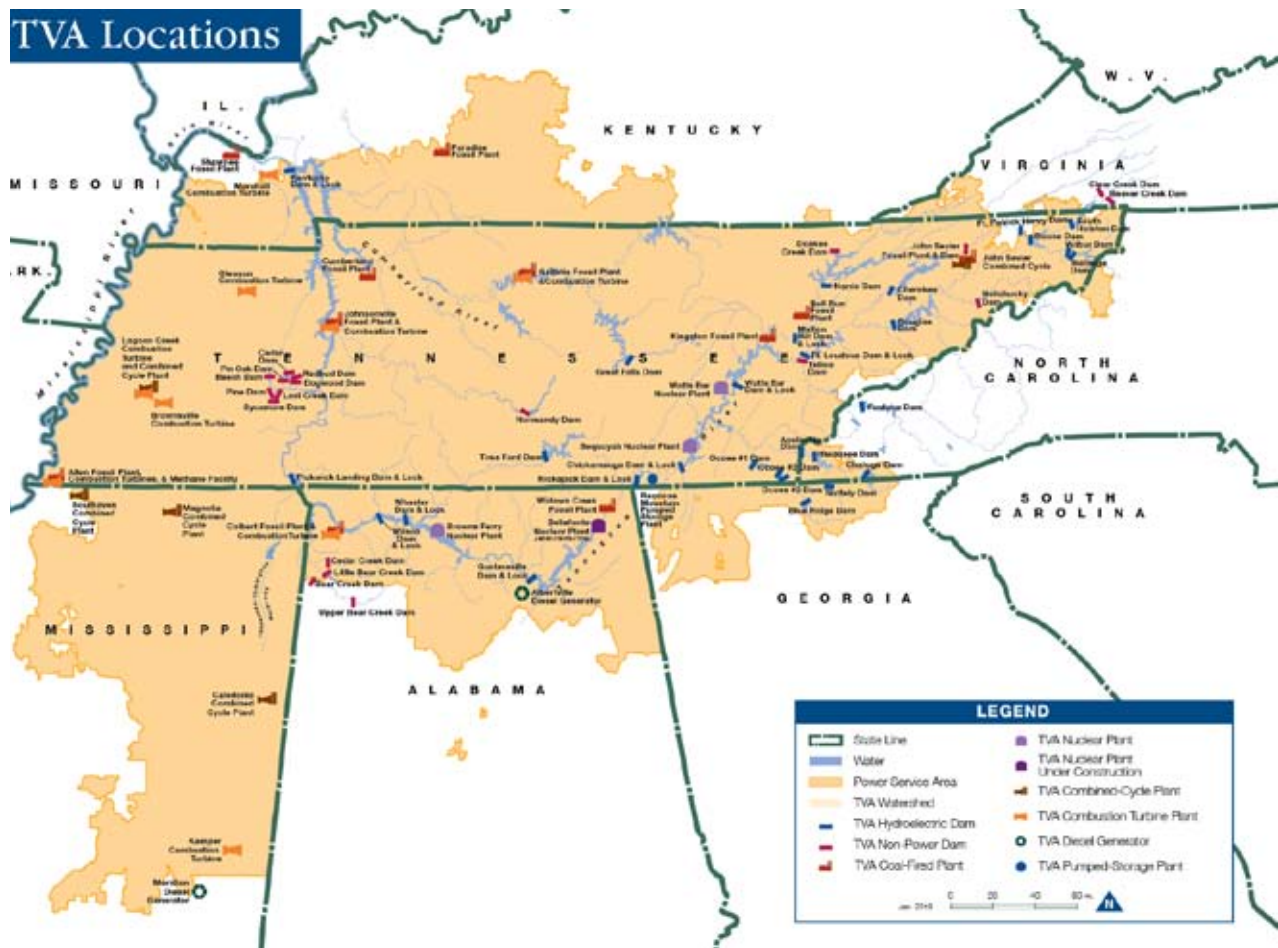


Office of the Inspector General  
TENNESSEE VALLEY AUTHORITY  
Semiannual Report  
October 1, 2013 - March 31, 2014

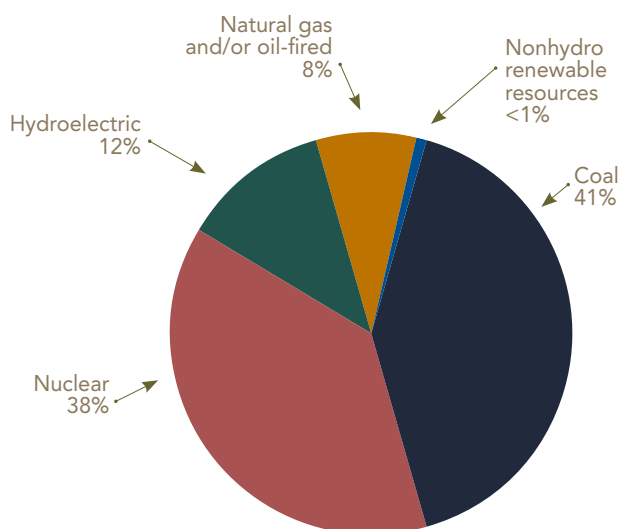
A close-up photograph of a person's hand holding a smartphone. From the screen of the phone, a complex, glowing blue and white network of lines and nodes emerges, forming a spherical shape. In the center of this network is a glowing padlock icon, symbolizing digital security and mobility.

# **BALANCING MOBILITY WITH SECURITY**

## TVA Locations



## TVA POWER GENERATION SIX MONTHS ENDED MARCH 31, 2014 (in millions of kilowatt hours)



- Coal - 29,292
- Nuclear - 27,217
- Hydroelectric - 8,741
- Natural gas and/or oil-fired - 5,763
- Nonhydro renewable resources - 2

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## Message from THE INSPECTOR GENERAL

I am pleased to present our report for the period October 1, 2013, to March 31, 2014. Mobile technology advancements have changed the way we work. Because of these advancements, conducting business is no longer constrained to a physical location or a hard-wired computer. Today, collaboration and information sharing occur seamlessly anywhere, anytime from your smartphone or tablet. While this technology can increase operational effectiveness, there are risks. In this semiannual feature, we focus on the Office of Inspector General's (OIG) role in helping the Tennessee Valley Authority (TVA) balance the benefits and risks of incorporating mobile devices into the business.



In this semiannual period, our audit, evaluation, and investigative activities identified more than \$20 million in funds to be put to better use, questioned costs, recoveries, savings, and penalties as well as opportunities for TVA to improve its programs and operations. Some of the highlights include:

- Eight preaward reviews that identified more than \$9 million of potential savings opportunities for TVA to use in negotiations of contracts.
- A follow-up review of TVA's Financial Trading Program (FTP) which found the overall design of the control structure was appropriate; however, there were opportunities to improve the program.
- Information Technology (IT) audits that identified opportunities to improve controls surrounding the (1) implementation of mobile device management, (2) transmission network used to provide information related to producing and delivering power, and (3) natural gas transaction management software.
- A review of how TVA manages combustible coal dust that identified significant improvements were needed in the program.
- A review of the non-nuclear employee concerns program which found program effectiveness could be improved.
- An investigation that resulted in a court order for an individual to repay victims of a fraudulent investment scheme more than \$10 million. One of the bogus investment opportunities was to support the purchase of materials and supplies to assist with the cleanup of TVA's Kingston

Fossil Plant coal ash spill. Other investigations in this semiannual period resulted in five indictments, one pretrial diversion, and one conviction.

In May 2014, the terms of Chairman William (Bill) Sansom and Director Barbara Haskew will end. Although their terms are expiring, they have graciously agreed to continue to serve until new appointments occur or until the end of this session of Congress, whichever comes first. The OIG extends our sincere appreciation to these fine public servants for their contributions to TVA over the years and to the work of our office.

Director Haskew had the unique opportunity to view TVA from two perspectives—she worked at TVA in the 1980s and then was appointed to the TVA Board in 2010. She served as Chairperson for the TVA Board's People and Performance Committee. We appreciate Director Haskew's





**Fontana Dam**

service to TVA and her support of the OIG.

We also note Chairman Sansom has a long record of public service and was nominated to serve on the TVA Board by both the Bush and Obama administrations. Chairman Sansom has been kind enough to publicly acknowledge the work of the OIG at TVA Board meetings and on other occasions. We

appreciate his dedication to public service and his support of the OIG.

As Director Joe Ritch assumes the role of Chairman of the TVA Board, I am confident he will continue in the tradition of excellence that his predecessor has established. He has our sincere best wishes as he takes the helm of TVA, and we look forward to working with him and

the other Board members to make TVA better.

**Richard W. Moore**  
Inspector General





# **SPECIAL FEATURE**

TVA OIG SEMIANNUAL REPORT



## **Special Feature:** BALANCING MOBILITY WITH SECURITY

Delivering services and information faster and at a lower cost is driving most companies to take advantage of mobile technologies. Government agencies are no exception. In May 2012, the Digital Government Strategy was issued by Federal Chief Information Officer Steven VanRoekel to, among other things, promote accelerated adoption of mobile workforce solutions. As a result, mobile electronic devices, including smartphones and tablets, are becoming key components of agency strategies to provide employees with flexibility in accessing agency networks and information from anywhere at any time. These strategies must also balance the advantages of mobility with the security risks inherent in this rapidly evolving environment.

Like other agencies, TVA is looking to take advantage of mobile technologies to gain operational efficiencies and cost savings. TVA has initiated programs to increase the use of mobile devices by developing mobile applications to perform various business functions, and by allowing the use of employee-owned devices in addition to corporate-owned devices, to access agency information. With these programs comes the responsibility to ensure appropriate security measures are implemented to safeguard TVA information.

In this article, we explore the OIG's role in helping TVA balance the benefits and risks of incorporating mobile devices into the business. While management makes the final decision on the proper controls to implement, it is incumbent on the OIG to (1) raise TVA's awareness of the risks with mobile technology

and (2) provide meaningful and cost-beneficial recommendations to help TVA reduce risks to acceptable levels. As we discussed in our September 2012 semiannual report, in the area of cyber security, we want to contribute to finding solutions rather than just finding problems. We have found through our experience that working collaboratively with TVA early in the development and implementation of these programs to identify risks and possible solutions helps TVA implement more efficient and effective programs.

### **Evolution of Mobile Technology**

Thirty years ago, business relationships meant traveling to another location and having human "face time," then dealing with paperwork later. If someone was out of the office, they were effectively out of contact. Businesses were limited to

sending hard-copy documents through the U.S. Postal Service or fax machines. Communication relied on hard-wired phone and computer systems. Technology and infrastructure to support the portable devices we know today were in their infancy.

As the technology and infrastructure evolved and became more cost effective in the early 2000s, businesses and consumers began acquiring more portable devices that would allow them to communicate information faster and better. Today, mobile devices have become ingrained in business and society. The introduction of iPhone and Android devices in 2007, and later iPads and tablets, have accelerated this movement and provided methods for instantaneous communication at a relatively low cost. Documents, videos, and images can be exchanged instantly, video conferencing can

be accessed from your mobile device, and collaboration and information sharing can happen anywhere and anytime. Gartner, Inc., a leading information technology research company, predicted that, in 2014, 90 percent of organizations will support corporate applications on devices owned by workers. This trend is referred to as the “consumerization” of information technology.

### **TVA and Mobile Technology**

TVA is also moving forward with mobile technology, progressing from reimbursing employees for cell phone usage to deploying mobile device management software aimed at providing greater flexibility in mobile device choices. This progression also potentially creates opportunities for asset and cost reductions and streamlined business processes. In June 2012, TVA was supporting more than 2,500 Blackberries, 400 iPhones, 120 Android phones, 750 iPads, 11 Android tablets, and 240 mobile handheld devices.

Increasing utilization of employee-owned and agency-owned mobile devices also brings increased risk to the agency in terms of cyber security, network access, network capacity, and data loss. While everyone at TVA is responsible for securing TVA's

sensitive information, the trend puts increased pressure on TVA's IT resources to put new controls in place to prevent agency computer network compromise from consumer devices, and prevent exposure of TVA's sensitive information if the device is lost.

To further enable the mobility of TVA's workforce, TVA initially implemented a cross-platform, mobile collaboration solution using containerized technology for corporate e-mail, calendaring, contacts, etc. Recently, TVA procured a comprehensive solution known as Mobile Device Management (MDM), which provides better management and security of mobile devices and corporate data, and allows TVA to develop applications to help streamline business processes.

### **The OIG's Role**

Although it is the agency's responsibility to identify and mitigate risks, the OIG can play an integral role by assessing the identified risks and planned mitigations as well as raising the awareness of unrecognized risks and providing possible solutions. We have found the OIG can have a great impact by working collaboratively with the agency to assess the sufficiency of controls early in the development and implementation of programs like those being implemented in the

mobility area. In essence, our audit team is “in-flight” with the project team to review the design of controls and test the controls before implementation. This close collaboration results in early identification of control issues and results in early resolution of issues at a lower cost to the agency.

Most recently, we implemented or applied this philosophy in our review of TVA's MDM deployment. In parallel with the MDM deployment, the OIG conducted an audit which included testing of MDM policies and infrastructure, evaluating existing TVA rules of behavior, and assessing the risk associated with the MDM tool. During the audit, the OIG worked interactively with TVA to test configurations and device policies on a variety of smartphones and tablets. As a result, needed improvements to controls, policies, and configuration were identified early in the program's implementation. The OIG and TVA will continue to collaborate as improvements are made to this program.

Success in this type of review is dependent on having the right relationships with agency staff. In our case, both sides recognize our mutual purpose is to reduce the risks to TVA. This requires creating a safe environment





where respectful, open, and honest communication can happen between the auditors and the agency staff. When done well, auditors and agency staff can exchange ideas, discuss areas of disagreement, and work to find a better solution. Successful collaboration is also dependent on how credible we are viewed in the agency's eyes. Credibility is obtained over time and through experience with each other as well as by staying up-to-date on evolving technology and associated risks. This requires the OIG to invest in the software, hardware components, and specialized training necessary to develop the essential skills

required to assess the controls and risks of TVA's mobility program.

### **Conclusion**

The mobility evolution is continuing at a rapid pace. TVA continues to refine its mobility program to make mobile devices as prevalent as any other end-user computing device. In the fast changing world of smartphones and tablets, risks change with each new device being introduced. From an information security perspective, devices must be configured and managed with information assurance controls commensurate with the sensitivity of the

underlying data as part of an overall risk management framework.

Collaborative efforts between TVA management and the OIG help identify security challenges in the mobile environment and integrate solutions as these devices become integral for TVA employees to perform their jobs. The OIG will continue to identify opportunities to collaborate with TVA to make TVA's mobility program best-in-class for reducing device and development costs without reducing information security.





# **NOTEWORTHY UNDERTAKINGS**



## NOTEWORTHY UNDERTAKINGS

On Thursday, February 13, 2014, Senior Special Agent Meagan Sands was honored by the U.S. Attorney's Office, Middle District of Tennessee, for her exemplary performance as a law enforcement agent. Sands was among 32 award recipients who "distinguished themselves during the previous year by their extraordinary performance in a particular case," according to the awards flyer. "These men and women have not only done extraordinary enforcement and investigative work but have gone the extra mile to work with attorneys and staff of the U.S. Attorney's Office to assure a just result in significant prosecutions of federal criminal defendants in the Middle District of Tennessee."

U.S. Attorney David Rivera was quoted as saying, "Those being honored here today represent a community of law enforcement officers and agents who have dedicated their lives to the protection of the public at any time and place that the peace is threatened. The life blood of law enforcement is the officer on the beat and the agent in the field. Without their efforts, no system of criminal justice can succeed."

TVA OIG Assistant Inspector General for Investigations Paul Houston bolstered Rivera's statement adding, "The United States Attorney's Office briefed not one, but two cases Meagan worked on along with former OIG Special Agent Chris Allen. Having one case briefed by the U.S. Attorney's Office in this ceremony is impressive enough, but two is truly extraordinary."

Sands and Allen were recognized for their work on a case involving a Robertson County Commissioner who spearheaded

a Ponzi scheme presented as multiple investment opportunities that bilked more than 50 investors out of \$16 million and another case involving

a utility company president embroiled in a mail and wire fraud scheme including his receipt of bribes and kickbacks.



Senior Special Agent Meagan Sands Receives Award from U.S. Attorney's Office for Her Work in Two Notable Cases

A hand is shown holding a sphere that is covered in a dense pattern of binary code (0s and 1s). The sphere is illuminated from above, creating a strong highlight on the top and casting a shadow on the hand below. The background is dark, making the sphere and the hand stand out. The binary code is arranged in horizontal lines across the sphere's surface.

# **EXECUTIVE OVERVIEW**

TVA OIG SEMIANNUAL REPORT



# EXECUTIVE OVERVIEW

In this semiannual report, our theme reflects the progressing challenge of keeping data secure in an increasingly mobile environment. Our mission to make TVA better includes supporting TVA in safeguarding its information on a widely dispersed mobile platform comprised of smartphones, tablets, laptops, and other mobile devices. In our feature article, we highlighted our work to help TVA bolster security of its growing mobile device programs. In addition to this work, the reviews highlighted in this report demonstrate how our work continues to make TVA better.

## AUDITS

During this reporting period, the TVA OIG audit organization completed 20 audit, review, and agreed-upon procedures engagements. This work identified \$635,465 in questioned costs for TVA to recover and approximately \$9.6 million in funds that could put to better use. We also identified several opportunities for TVA to improve the effectiveness and efficiency of its programs and operations.

### Contract Audits

To support TVA management in negotiating procurement actions, we completed eight preaward reviews of cost proposals submitted by companies proposing to provide (1) TVA Valley-wide engineering services, (2) hydro modernization and unit rehabilitation services, and (3) construction/modification services for TVA's transmission/power supply program. Our reviews identified \$9.6 million of potential savings opportunities for TVA to negotiate.

We also completed three compliance audits of contracts with expenditures totaling \$328 million related to (1) the coal combustion by-products spill at TVA's Kingston Fossil Plant; (2) the subcontracting process utilized by a contractor for services associated with TVA's combustion turbine projects and various equipment for selective catalytic reduction and dry flue gas desulfurization precipitators; and (3) geotechnical services. These audits identified potential

overbillings of \$635,465. The Contract Audits section begins on page 23 of this report.

### Corporate Governance and Finance Audits

With a focus on TVA's regulatory activities and compliance with applicable laws and regulations as well as financial reporting, we completed four reviews. We contracted with Mercatus Energy Advisors (Mercatus) to conduct a follow-up audit of TVA's FTP which found while the

## STATISTICAL HIGHLIGHTS

October 1, 2013 - March 31, 2014

Audit Reports Issued	20
Evaluations Completed	3
Questioned Costs	\$635,465
Questioned Costs Agreed to by TVA	\$308,089
Questioned Costs Recovered by TVA	\$164,025
Funds to Be Put to Better Use	\$9,584,250
Savings Realized by TVA	\$374,900
Investigations Opened	112
Investigations Closed	148
Recoveries/Fines/Penalties	\$10,875,742
Criminal Actions	7
Administrative Actions (No. of Subjects)	22

overall design of the FTP control structure was appropriate, there were opportunities to improve the program. We also completed a mandated review of TVA's compliance with the Improper Payments Information Act (IPIA) of 2002, as amended.

Finally, in addition to our audit work, we (1) applied agreed-upon procedures related to TVA's 2013 Winning Performance (WP) payout and (2) monitored the audit of TVA's fiscal year (FY) 2013 financial statements by an external auditor. The Corporate Governance and Finance Audits section begins on page 24 of this report.

### **IT Audits**

During this semiannual period, we completed three audits in the IT environment pertaining to TVA's (1) controls over the implementation of an MDM software suite; (2) controls over a transmission network used to provide information related to producing and delivering power; and (3) application controls for TVA's natural gas transaction management software. We identified areas for improvement in all three reviews. The IT Audits section begins on page 26 of this report.

### **Operational Audits**

During this semiannual reporting period, Operational Audits evaluated TVA's efforts to identify and mitigate risks associated with equipment in Coal Operations and in Nuclear Operations and assessed TVA's management of combustible coal dust. Our reviews of equipment in Coal Operations and Nuclear Operations found overall risk mitigation plans and actions were reasonable. We identified opportunities to improve the management of combustible coal dust. The Operational Audits section begins on page 28 of this report.

### **EVALUATIONS**

During the reporting period, Evaluations completed three reviews related to (1) TVA's non-nuclear employee concerns resolution; (2) critical spare parts for nuclear, coal, and gas units; and (3) actions to address nuclear systems, components,

and programs with poor health ratings. We found while the Non-Nuclear Employee Concerns Program (ECP) has improved in addressing concerns in a timely manner, the effectiveness of the program could be improved. We also found that critical spare parts could be managed more effectively. Lastly, we found that TVA is taking action to address nuclear systems, components, and programs with poor health ratings. The Evaluations section begins on page 32 of this report.

### **INVESTIGATIONS**

This reporting period, our investigations resulted in five indictments, one pretrial diversion, and one conviction, as well as restitution and recoveries to TVA and other persons or entities exceeding \$10 million. We opened 112 cases and closed 148. The Investigations section begins on page 36 of this report.





**Bull Run Fossil Plant**



# TVA OIG ORGANIZATION

## TVA OIG SEMIANNUAL REPORT



**Charles A. Kandt**  
Counselor to the IG

**Richard W. Moore**  
Inspector General

**Ben R. Wagner**  
Deputy Inspector General

**W. David Winstead**  
Legal Counsel

**Jill M. Matthews**  
Assistant Inspector General, Administration

**Robert E. Martin**  
Assistant Inspector General, Audits & Evaluations

**Paul B. Houston**  
Assistant Inspector General, Investigations

**Terri Beatty**  
Manager, Organizational Health

**Lisa H. Hammer**  
Director, Operational Audits

**David P. Wheeler**  
Deputy Assistant Inspector General, Audits

**Greg R. Stinson**  
Director, Evaluations

**Nancy J. Holloway**  
Special Agent In Charge

**Kathy H. Kirkham**  
Manager, Human Resources

**Phyllis R. Bryan**  
Director, IT Audits

**James E. Hunter**  
Special Agent In Charge

**Curtis C. Hudson**  
Director, Contract Audits

**Rick C. Underwood**  
Director, Corporate Governance & Finance Audits



# 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 helped save or recover 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 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, in the field, or in one of our virtual offices that enable our employees to telework from home or while traveling.

The OIG has strategically located its offices near all major TVA

offices throughout the Tennessee Valley. We are headquartered in TVA's East Tower, opposite TVA's corporate offices, overlooking downtown Knoxville.

The OIG has field offices 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 in Nashville, Tennessee, and Huntsville, Alabama. We also have office locations at Watts Bar Nuclear Plant in Spring City, Tennessee; Bellefonte Nuclear

Plant in Hollywood, Alabama; and Sequoyah Nuclear Plant in Soddy-Daisy, Tennessee. Staff work in these locations as needed.

As of March 31, 2014, the OIG had a total staff of 105. The number of personnel located at each staffed office is: Knoxville-81, Chattanooga-18, Nashville-3, and Huntsville-3.

## ADMINISTRATION

*The Administration team* works closely with the Inspector General (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, training and event planning, communications facilitation, and IT support.

## AUDITS AND EVALUATIONS

*The Audits and Evaluations teams* perform 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 teams make recommendations to enhance the effectiveness and efficiency of TVA programs and operations.

The teams use 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.



**Wilson 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

- Internal Control Deficiencies
- Policy Noncompliance
- Integrity of Data and Assets
- Fraud

### Evaluations

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

### Contract Audits

- Inflated Proposals
- Contract Overpayments
- Inferior Performance
- Fraud

- Contract Audits has lead responsibility for contract compliance and preaward audits. In addition, this team 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 team 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 team 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 on the previous page 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 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, as well as securities fraud. The graphic 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 TVA Board requests, and fraud risk assessments.



Watts Bar Nuclear Plant





# **REPRESENTATIVE AUDITS**

TVA OIG SEMIANNUAL REPORT



## Summary of REPRESENTATIVE AUDITS

During this reporting period, the TVA OIG Audit organization completed 20 audit, review, and agreed-upon procedures engagements. This work identified \$635,465 in questioned costs for TVA to recover and approximately \$9.6 million in funds the company could put to better use. We also identified several opportunities for TVA to improve the effectiveness and efficiency of its programs and operations.

### CONTRACT AUDITS

#### Preaward Contract Reviews

To support TVA management in negotiating procurement actions, we completed eight preaward reviews of cost proposals submitted by companies proposing to provide (1) TVA Valley-wide engineering services, (2) hydro modernization and unit rehabilitation services, and (3) construction/modification services for TVA's transmission/power supply program. Our reviews identified \$9.6 million of potential savings opportunities for TVA to negotiate. The savings opportunities were primarily related to overstated indirect cost recovery rates and excessive profit rates.

#### Contract Compliance Reviews

During this semiannual period, we completed three compliance audits of contracts with expenditures totaling \$328 million and identified

potential overbillings of \$635,465. Highlights of our completed compliance audits follow.

- We audited \$66.4 million in costs billed by a contractor to unload and dispose at least four million tons of coal combustion by-products from the 2008 spill at TVA's Kingston Fossil Plant. We determined the contractor overbilled TVA \$366,401 which included (1) \$225,832 in overbilled tonnage costs, (2) \$122,921 in overbilled leachate (leachate is liquid which drains from coal combustion by-products) costs, (3) an estimated \$11,206 in overbilled standby costs, and (4) \$6,442 in overbilled structural adequacy costs.
- We performed an audit of the subcontracting process utilized by a contractor under two contracts. Under the contracts, the contractor was to provide design, engineering, procurement,

delivery, installation, and construction management services for TVA's combined-cycle combustion turbine or simple-cycle combustion turbine projects and various equipment for selective catalytic reduction and dry flue gas desulfurization precipitators.

Our audit included subcontracts and related change orders for \$256.3 million in subcontractor costs the contractor billed to TVA from December 14, 2007, to June 27, 2012. We determined the contractor (1) did not obtain TVA approval for some subcontracts and (2) circumvented requirements for TVA approval and overbilled TVA \$168,623 in markup costs applied to costs for services and equipment provided by TVA under subcontract agreements.

- We audited \$5.3 million in costs billed by a contractor for a broad range of geotechnical services to



**Pickwick Dam**

support engineering design for structures, earthwork, and environmental projects. We determined the contractor overbilled TVA an estimated \$100,441. The overbilling included an estimated (1) \$63,196 in labor costs, (2) \$14,693 in transportation and subsistence costs, (3) \$13,243 in unit rate costs, (4) \$8,709 in miscellaneous costs, and (5) \$600 in unclassified costs.

## **CORPORATE GOVERNANCE AND FINANCE AUDITS**

During this semiannual period, Corporate Governance and Finance Audits (1) completed a follow-up audit of TVA's FTP, (2) applied agreed-upon

procedures related to TVA's 2013 WP payout; (3) monitored the audit of TVA's FY 2013 financial statements by an external auditor; and (4) completed a mandated review of TVA's compliance with IPFA of 2002, as amended.

### **Follow-up Audit of TVA's FTP**

During 2012, we completed an audit of TVA's FTP. The program, which started in 2003, was designed to hedge or otherwise limit economic risk associated with the price of commodities recovered in TVA's fuel cost adjustment. Since the hedging of natural gas comprised the majority of the hedging program, we generally limited our scope to the financial gas hedging program. Although our audit

determined the overall design of TVA's FTP control structure was appropriate, we also identified several areas where management oversight needed improvement to validate the usefulness and effectiveness of the program, as well as ensure TVA stakeholders' understanding of the program.

As a follow up to our 2012 review, we contracted with Mercatus to (1) provide a third-party review of the final actions taken by TVA management with regard to the recommendations from our initial audit, and (2) determine if TVA's financial gas hedging program was designed and functioning in a manner to achieve program objectives in the most efficient and effective manner.



In summary, Mercatus agreed (1) the overall design of TVA's FTP control structure was appropriate and (2) with the recommendations in our initial report. However, Mercatus identified several additional areas regarding the design and function of the program that required attention. To address these areas, Mercatus recommended TVA:

- Determine risk tolerance and proper size of the FTP.
- Analyze volumetric risk on a regular, consistent basis and communicate with stakeholders having a vested

interest in this aspect of the FTP.

- Redesign hedging strategies to better match the characteristics of the exposures being hedged.
- Improve and consolidate performance reports.
- Cease using "Value at Risk" as a primary risk metric and replace it with an at-risk type of metric(s) that includes financial natural gas hedges and the physical exposures being hedged.

- Conduct stress testing on a routine basis.
- Ensure actions required by governance documents are adhered to or if language in the documents is inaccurate, revise the documents to reflect actual practices.
- Conduct a proper cost/benefit analysis of the FTP and compare all-in hedged cost of fuel to the cost of fuel without hedging (market price).
- Properly analyze and manage all of TVA's energy commodity exposure.

### **Browns Ferry Nuclear Plant**



TVA management generally agreed with the recommendations and provided a plan of action to address the recommendations.

### **Agreed-Upon Procedures Applied to 2013 WP 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, 2013. We found:

- The FY 2013 WP goals were properly approved.
- The measures on the Strategic Business Unit and Business Unit scorecards agreed with the respective supporting documentation.

- The incentivized TVA Corporate Balanced Scorecard measures agreed with the underlying support.
- The FY 2013 WP payout percentages provided by the Metrics and Performance Analysis organization on October 21, 2013, were correctly calculated.

### **Oversight of the FY 2013 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, 2013, 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 2013 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 2013 Compliance with the IPIA**

The OIG performed an audit of TVA's compliance for FY 2013

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 2013 and determined the primary programs susceptible to improper payments were its Supply Chain programs. TVA calculated the total amount of payments subject to review as more than \$8.7 billion. IPIA defines significant improper payments as \$10 million of all program activity payments and 1.5 percent of program outlays. TVA's improper payments totaled more than \$15 million and 0.17 percent of program outlays. Accordingly, TVA's improper payments fell below the IPIA threshold amounts. Finally, although TVA was not required to report information related to recapture efforts, TVA voluntarily stated in their FY 2013 IPIA letter that they had recovered all but \$88,151 of the improper payments identified.

## **IT AUDITS**

During this semiannual period, we completed the following three audits in the IT environment: (1) controls over the implementation of MDM software suite; (2) controls over





a transmission network used to provide information related to producing and delivering power; and (3) application controls for TVA's natural gas transaction management software.

### **Controls Related to TVA's MDM Implementation**

During 2013, TVA's IT organization decided to expand the use of mobile devices within TVA and, subsequently, purchased an MDM application suite. Due to the risk associated with this new technology, the OIG performed an audit of the implementation project to determine whether TVA's systems development process

was followed and server and application controls were considered.

In summary, we determined TVA's (1) project management controls for the MDM implementation could be improved; (2) current policies regarding Bring Your Own Device (BYOD) and mobile devices (a) contained provisions that were not applicable or not enforceable and (b) were missing key provisions, such as controlling how data is protected on the device, connectivity policies, application control policies, and TVA access to personally-owned and TVA-owned devices; and (3) planned configuration

of the MDM client had control weaknesses which we classified as high risk.

We recommended TVA management (1) improve project management controls by completing project activities as required by TVA policies and procedures, (2) review and update TVA's BYOD and mobile device policies and procedures with applicable provisions, and (3) address control weaknesses we identified in our risk assessment. TVA management generally agreed with our recommendations and is taking corrective action to address the issues.

## Transmission Network Controls

TVA implemented a transmission network for the sole purpose of transporting data related to producing and delivering power. The OIG performed this audit to gain a better understanding of the network and its architecture and evaluate any risks associated with the network through either its design or the information being transmitted on it.

In summary, we found the network had been appropriately configured to block access to and from the Internet and was being used appropriately at the time to only collect operation data. However, we determined (1) TVA device configuration requirements were not followed; (2) password management practices could be improved; (3) network monitoring was not being performed; and (4) firewall rules and configurations could be strengthened. We recommended TVA (1) modify configuration management practices so that systems are hardened, per best practices, and reviewed on a periodic basis; (2) review and update current password management practices to ensure compliance with all applicable policies and practices; (3) implement network monitoring; and (4) review current firewall rules and configuration

and, where possible, implement best practices. TVA management generally agreed with our recommendations and is taking actions to address them.

## Controls Over TVA's Natural Gas Transaction Application

To support TVA's current natural gas-fired plants, TVA uses a transaction management application for tracking purchases, sales, transportation, and ultimate use of natural gas in TVA's generation assets. Annual transactions in the physical natural gas area on the purchase side are approaching \$500 million, with transportation and storage charges that are estimated to amount to an additional \$20 million. With the current trend in generation, TVA expects these numbers to grow with the addition of new plants and installation of new units at existing plants.

The OIG performed this audit to determine the adequacy of the application's (1) data processing and application controls to ensure data integrity and reliability and (2) logical security controls to ensure only authorized access to system resources and protection of sensitive information. While we found TVA had adequate data processing and application controls, we found (1) change tickets were not tracked to ensure

resolution; (2) reviews of assigned security groups were not being performed; and (3) relevant TVA policies and procedures were not timely updated.

We recommended TVA (1) develop a new procedure for the periodic review of the open change tickets to validate tickets past their planned close dates are reviewed and appropriate action is taken; (2) semiannually review the security groups that are assigned to each user as part of the quarterly review and update the security as required; and (3) ensure relevant policies and procedures are updated, per their defined cadence, as well as aligned with TVA's risk management framework. TVA management agreed with our recommendations and is taking actions to address them.

## OPERATIONAL AUDITS

During this semiannual reporting period, Operational Audits assessed TVA's management of combustible coal dust and evaluated TVA's efforts to identify and mitigate risks associated with equipment in Nuclear Operations and in Coal Operations.





### **TVA's Management of Combustible Coal Dust**

Combustible dust contains fine particles that present an explosion hazard when suspended in air under certain conditions. Combustible coal dust presents a real and serious threat to utility generating facilities and personnel safety. Coal handling and fueling operations are inherently dusty, requiring the highest standard of housekeeping, equipment tightness, and electrical integrity. Failure to establish and maintain such standards sets the stage for a potential catastrophic event

that could jeopardize property, business operations, and life safety. TVA's Coal and Gas Operations is responsible for managing combustible coal dust.

Although the probability of occurrence for coal dust explosions was rated by TVA in the Enterprise Risk Management (ERM) risk map as unlikely, the potential consequences of an explosion could be severe and result in the disruption of generating capacity, costly cleanup and repairs, and even loss of life.

We evaluated the adequacy of actions taken by TVA to mitigate combustible coal dust risk. In doing so, we reviewed policies, procedures, and regulations related to combustible coal dust, performed walk-downs at three of TVA's coal plants to observe coal dust conditions, reviewed various documents and internal assessments, and interviewed TVA personnel. In summary, we found that despite some improvements in combustible dust management, actions to date have been inadequate to improve deteriorating equipment conditions, address

housekeeping challenges, and provide appropriate monitoring of combustible dust conditions at TVA coal plants. Specifically:

- We observed, during walk-downs at three coal generation plants, coal dust accumulations in many of the coal handling areas that were above the Occupational Safety and Health Administration's allowable 1/32 inch standard. TVA also self-identified coal dust accumulations above the allowable standard in many of the coal handling areas throughout the coal fleet.
- Site assessment reports performed by Yard Systems engineers indicated some conditions improved between 2010 and 2012. While some equipment deficiencies were being addressed, and there were several programmatic practices in progress that were expected to improve conditions over time, equipment had deteriorated faster than funding had been available for repairs or replacements. Deficiencies resulting from inadequate equipment maintenance contributed to the increased presence of combustible coal dust and coal accumulations within the coal handling system.

- Tools for monitoring dust conditions, including site dust management plans, quarterly site assessments, monthly housekeeping reports, and sampling ash for combustibility, were not consistently used.

Based on these findings, we made recommendations to TVA management to improve the process. TVA management generally agreed with our findings and recommendations and has taken corrective action to address these issues.

### **Long-Term Equipment Reliability Risk - Nuclear**

In July 2010, TVA signed into effect an ERM policy that provides requirements and guidance on risk management activities within TVA. The policy states the purpose of ERM at TVA is to protect the value of the enterprise and realize opportunities for stakeholders by promoting efficient and effective management of risk across TVA. The policy also states strategic business units within TVA are responsible for managing risks within their business operations and should identify and assess risks associated with achieving their business objectives and develop risk management plans that mitigate the probability and consequence of risk based on the TVA ERM guidelines.

As required by the ERM policy, TVA's Nuclear Power Group (NPG) identified several risks that could prevent the organization from achieving its business objectives. It then developed mitigation plans for those risks with ineffective mitigation. One such risk identified by NPG was long-term equipment reliability, which the organization defined as failures of critical equipment that could cause (1) safety concerns to the public and personnel, (2) lost production/revenue, and (3) financial concern. The risk was included in TVA's Asset Performance and Operations enterprise risk category, which focused on assets performing reliably and constantly as required by the power supply plan.

We assessed whether risk mitigation plans and actions were established and properly designed to achieve the desired results and were operating as intended. We determined the identified mitigation plans were adequately designed to address this risk and, based on NPG actions taken, were mitigating risk as intended.

### **Asset Performance Vulnerability Risk - Equipment**

As required by the July 2010 ERM policy, CO identified several risks associated with achieving its business objective and developed mitigation plans for those risks.



These risks and mitigation plans are captured on risk maps. One such risk identified by CO is asset performance vulnerability which the organization defined as: (1) asset performance risks affecting CO's ability to be available to provide reliable generation when called upon to meet TVA system demands and (2) unit availability risk driven by equipment failure-related forced outage or maintenance outage events and planned outage extension of significant duration. The risk is included in TVA's asset performance and operations enterprise risk category. That category focuses

on assets performing reliably and constantly as required by the power supply plan.

The OIG reviewed CO's 4th quarter FY 2012 and 2nd and 4th quarters FY 2013 enterprise risk maps for asset performance vulnerability to assess whether risk mitigation plans and actions were established and properly designed to manage risks. We determined the 4th quarter FY 2013 mitigation plans and actions were adequately designed to manage the risks. Although the risk rating and trend had increased from two years ago, in our

opinion, mitigation plans and actions that consider the use of assessment tools, replacing components during planned outages, development and implementation of projects and programs to avoid consequences, and reclassification of components to capital from operations and maintenance to increase investment in long-term improvements reasonably address the risk of asset performance vulnerability in CO. We also identified an opportunity to improve CO's risk mitigation documentation which was addressed during our audit.



**Allen Fossil Plant**



An abstract digital landscape featuring a map of the United States composed of binary code (0s and 1s). The map is set against a background of a blue sky with a white horizon line. Several curved white arrows point from the map towards the right side of the image. The overall color scheme is blue and white.

# **REPRESENTATIVE EVALUATIONS**

TVA OIG SEMIANNUAL REPORT



## Summary of REPRESENTATIVE EVALUATIONS

During this semiannual period, Evaluations completed three reviews, including one of TVA's non-nuclear employee concerns resolution program. In addition, the team completed reviews of critical spare parts for nuclear, coal, and gas units and actions to address nuclear systems, components, and programs with poor health ratings. More information on each of the reviews can be found below.

### **TVA's Non-Nuclear Employee Concerns Resolution Program**

Due to the importance of the Non-Nuclear ECP to the TVA culture and environment, we initiated a review to determine whether the program was addressing employee concerns in a timely and effective manner. Our review covered employee and contractor concerns expressed between October 2011 and February 2013.

The Non-Nuclear ECP was implemented in July 2010 for employees and contractors who support non-nuclear operations to provide an alternative for resolving concerns when going through the chain of command was not appropriate, or when doing so did not result in a satisfactory resolution.

We found that while the Non-Nuclear ECP was addressing concerns in a timely manner, the effectiveness of the program could be improved. While the

Non-Nuclear ECP did not achieve its FY 2012 timeliness goal of 90 percent of concerns addressed in less than 30 days, at the time of our review, it was achieving its FY 2013 goal which was to resolve 75 percent of concerns within 45 days. Of the 73 concerns submitted and resolved in FY 2013, at the time of our review, 62, or 85 percent, had been resolved within 45 days.

In reviewing program effectiveness, we found improvements could be made. For example, our review identified instances where program personnel did not fully address concerns. Of the 50 concerns we sampled and tested, in our opinion, three concerns were not adequately addressed, and two case files did not contain enough information to draw a conclusion regarding the adequacy of the resolution. In addition, a survey conducted by the OIG disclosed 32 percent of respondents felt their concerns

were not adequately addressed, and 34 percent reported feeling pressure or repercussions from management or team members as a result of raising concerns through the program.

We recommended TVA (1) identify an individual after the reorganization to perform audits and assessments of closed concerns, (2) coach individuals addressing concerns on what constitutes a sufficient investigation, and (3) develop an instrument to send to complainants to identify instances of retaliation and investigate as necessary. TVA management generally agreed with our findings and recommendations and is taking corrective action.

### **TVA's Nuclear Power Group and Coal & Gas Operations Critical Spare Parts Program**

TVA identified asset performance and operations as a major risk for the agency. Without effective management of critical spare



**Nickajack Dam**

parts, TVA could face equipment failure which could result in increased safety risk and lost generation. This review was initiated to determine if the NPG and Coal & Gas Operations (C&GO) were effectively managing critical spare parts.

Our review found critical spare parts could be managed more effectively. Specifically, we found (1) C&GO did not have a standard procedure to govern its critical spare parts program; (2) preventive maintenance was not being performed on critical spare parts at some C&GO plants; and (3) while our physical inventory counts agreed with information in Maximo, asset

and location information in the system for critical spare parts was unreliable. We also found the lack of critical spare parts had negatively affected system and component health, and while TVA had taken steps to improve the identification and procurement of critical spare parts, C&GO had not implemented steps recommended by a management consulting firm related to the management of critical spare parts.

We recommended TVA (1) develop C&GO procedures to govern the identification and procurement of critical spare parts; (2) ensure proper maintenance is performed

on spare parts; (3) work with Engineering Environmental & Support Services to implement controls over information maintained in Maximo, including controls for identifying critical spare parts, and work with Supply Chain, accordingly, to update Maximo; and (4) take steps to follow up on actions recommended by a management consulting firm. TVA management generally agreed with our findings and recommendations and is taking corrective action.

## **Actions to Address Nuclear Plant Systems, Components, and Programs with Poor Ratings**

In the conduct of a prior inspection which culminated in the report titled, Survey of TVA's Process for Determining Condition of Assets, dated September 20, 2012, we learned that asset condition assessments completed by the NPG had determined some generation assets were in poor condition. As a follow up to this prior work, we performed a review to determine whether TVA was taking actions to address NPG systems, components, and programs with poor ratings. Under NPG's health report process, actions are required when ratings are designated red or yellow as described ahead.

NPG requires system health reports be prepared three times a year and component and program health reports be prepared twice each year. Each system, program, and component report is assigned a color rating of green, white, yellow, or red based on the overall report score. According to NPG-Standard Programs and Processes, a green rating requires no additional attention, a white rating designates current performance/activities are appropriate, a yellow rating needs additional

attention, and a red rating requires excessive monitoring/resources to maintain.

We found 333 systems, programs, and components within NPG had been designated red or yellow and randomly sampled 25 for detailed review. Our analysis showed at least two actions were taken to address 24 of the 25 items in our sample. For one component, only one action was complete and other

actions were awaiting approval. These actions resulted in an improvement in condition to a white or green rating in 14 cases, while 11 ratings remained red or yellow. It is important to note that of the 11 remaining red and yellow ratings, 2 moved from red to yellow, and 9 remained the same. In addition, 5 of the 9 that remained red or yellow had some asset condition improvement, but not sufficient improvement to downgrade it to a lower rating.



**Blue Ridge**





# **REPRESENTATIVE INVESTIGATIONS**

TVA OIG SEMIANNUAL REPORT

## Summary of REPRESENTATIVE INVESTIGATIONS

This reporting period, our investigative results include five indictments, one pretrial diversion, and one conviction. Our investigations resulted in restitution and recoveries to TVA and other persons or entities exceeding \$10 million.

### **Federal Prosecution Completed for Former Clarksville Department of Electricity President and Consultants**

Rick R. Ingram, Sr., former President of Clarksville Department of Electricity (CDE), was sentenced on November 5, 2013, completing the prosecution of three individuals engaged in a scheme including bribes and kickbacks during Mr. Ingram's tenure as CDE's executive officer. As previously reported, in addition to Mr. Ingram's involvement in this matter, two other individuals, a father and son with separate consulting businesses (Tommy L. Walton, II, and Tommy L. Walton, Sr.), were convicted of related offenses and sentenced.

The Waltons were hired by Ingram as paid consultants to CDE. Our investigation revealed they provided covert payments to Mr. Ingram for his approval of their inflated invoices. The payments to Ingram were not disclosed to members of the

CDE Board of Directors or CDE employees, and the United States contended Ingram's scheme deprived CDE and its customers of the honest services of Mr. Ingram as CDE president.

Mr. Ingram's November sentencing was based on his May 2012 guilty plea to two counts each of wire and mail fraud. He was ordered to serve 46 months in prison followed by three years of probation for his part in the scheme, and he was ordered to pay CDE \$188,289.39 restitution.

According to testimony at Mr. Ingram's plea hearing, as CDE president, he hired the Waltons as consultants to CDE during November 2008. From that time through June 2009, Tommy L. Walton, II, and his business, IntelliNet Consulting LLC invoiced and received \$156,139.39 from CDE. Mr. Walton, II, paid nearly one-third of that total (\$51,500) back to Mr. Ingram and/or one of Mr. Ingram's creditors.

Mr. Walton, II, was found guilty by a federal trial jury in January 2013 of nine counts mail fraud and seven counts wire fraud. He was sentenced in August 2013 to serve four years in prison, followed by three years of supervised release, comprised of two years at a halfway house and one year of home detention. He was ordered to pay \$95,211.38 restitution to CDE.

Tommy L. Walton, Sr., and his business, Intelligent Surveillance, Inc., invoiced and received a total of \$32,150 from CDE during the November 2008 through June 2009 timeframe. During that same period, Mr. Walton, Sr., paid nearly half that amount (\$16,015) back to Mr. Ingram.

Mr. Walton, Sr., pled guilty to eight counts of mail fraud and five counts of wire fraud during January 2013. He was sentenced the following August to 30 days of imprisonment, followed by three years of supervised release, comprised of 18 months at a halfway house and 18 months





**Paradise Fossil Plant**

of home detention. In addition, he was ordered to pay \$32,150 restitution to CDE.

### **Prosecution Complete for Individual Fraudulently Garnering Investors for Kingston Cleanup**

We previously reported the December 2012 guilty plea of Edward Shannon Polen--a former Robertson County, Tennessee, commissioner. Mr. Polen pled guilty to two counts each of wire and mail fraud and one count each of bank fraud and money laundering. On December 19,

2013, Mr. Polen was sentenced in federal court for these offenses.

Mr. Polen was ordered to repay victims a total of \$10,794,728.21. Additionally, he was sentenced to serve 71 months in prison followed by five years of probation.

The investigation was predicated on (1) complaints to the OIG alleging Mr. Polen conducted fraudulent investment schemes against Tennessee Valley residents and (2) the negative impact the scheme might

have on TVA's reputation. Our investigation revealed Mr. Polen fraudulently obtained millions of dollars from investors by falsely promising to invest their money in one or more of three sham investment opportunities. The largest scam, with the greatest dollar loss to investors, was the purported purchase of materials and supplies to assist with the cleanup of the coal ash spill at TVA's Kingston Fossil Plant. The victims of the coal ash scheme were led to believe they were helping TVA fund clean-up work at Kingston.



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

TVA OIG was the lead investigative agency in this case, joined by the Internal Revenue Service Criminal Investigation Division; 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.

### **TVA Vendor Convicted**

On October 3, 2013, a federal grand jury returned a five-count indictment against Frank Lewis Conn for violating Title 18 United States Code 1343, Wire Fraud. Mr. Conn was an owner of Conn Equipment Rental Company, which contracted with TVA to remove vegetation from TVA power lines and other TVA property across the Tennessee Valley. The indictment alleged he devised a scheme to defraud TVA of approximately \$152,712 through the use of

fraudulently inflated invoices. On January 15, 2014, Mr. Conn pled guilty to one count of the indictment and awaits sentencing.

### **Computer Misuse Results in Resignation**

Investigation activity revealed a Nuclear employee used his TVA computer to access numerous pornographic sites and utilized

Craigslist and his TVA e-mail to solicit sexual encounters while on-duty. The individual was initially suspended, pending further investigation, and then resigned as a result of our inquiry.



**Transmission Lines**





# **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.



**Sequoyah Nuclear Plant**



The background of the entire page is a complex, repeating geometric pattern of triangles in various shades of blue, ranging from dark navy to light sky blue. The pattern is dense and covers the entire surface.

# **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	40
Section 5(a)(1)	Significant Problems, Abuses, and Deficiencies	22-39
Section 5(a)(2)	Recommendations With Respect to Significant Problems, Abuses, and Deficiencies	22-39
Section 5(a)(3)	Recommendations Described in Previous Semiannual Reports in Which Corrective Action Has Not Been Completed	Appendix 5
Section 5(a)(4)	Matters Referred to Prosecutive Authorities and the Prosecutions and Convictions That Have Resulted	Appendix 6 36-39
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	22-39
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	Appendix 4
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	Not Applicable
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 9
Section 5(a)(15)	List of outstanding recommendations from any peer review conducted by another Office of the Inspector General, including a statement describing the status of the implementation and why implementation is not complete	None
Section 5(a)(16)	List of peer reviews conducted of another Office of the Inspector General during the reporting period, including a list of any outstanding recommendations made from any previous peer review that remain outstanding or have not been implemented	None



## APPENDIX 2

### OIG AUDIT REPORTS • Issued During the Six-Month Period Ended March 31, 2014

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
<b>CONTRACT AUDITS</b>				
2013-15265 10/10/2013	Proposal for Engineering Services	\$ 0	\$ 0	\$ 0
2012-14769 10/22/2013	Phillips and Jordan, Inc.	366,401	16,744	0
2013-15185 11/07/2013	Proposal for Engineering Services	0	0	0
2012-14666 11/15/2013	URS, Inc.	168,623	0	0
2013-15314 12/12/2013	Proposal for Construction/Modification Services for Transmission/Power Supply Program	0	0	0
2013-15252 01/08/2014	Proposal for Construction/Modification Services for Transmission/Power Supply Program	0	0	4,570,000
2012-14912 01/21/2014	AMEC Environment and Infrastructure, Inc.	100,441	13,843	0
2013-15266 01/24/2014	Proposal for Engineering Services	0	0	0
2013-15190 02/03/2014	Proposal for Hydro Modernization and Rehab	0	0	414,250
2013-15330 02/10/2014	Proposal for Construction/Modification Services for Transmission/Power Supply Program	0	0	4,600,000
2013-15350 02/13/2014	Proposal for Construction/Modification Services for Transmission/Power Supply Program	0	0	0
<b>CORPORATE GOVERNANCE AND FINANCE AUDITS</b>				
2013-15369 11/07/2013	Agreed-Upon Procedures for TVA FY 2013 Performance Measures	\$0	\$0	\$0
2014-15209 03/12/2014	TVA's Compliance with IPIA FY 2013	\$0	\$0	\$0
2011-14477-01 03/28/2014	Follow-up Audit of TVA's Financial Trading Program	\$0	\$0	\$0
<b>OPERATIONAL AUDITS</b>				
2012-14631 11/14/2013	TVA's Management of Combustible Coal Dust	\$0	\$0	\$0
2012-14742 12/16/2013	Long-Term Equipment Reliability Risk	\$0	\$0	\$0
2012-14744 03/28/2014	Asset Performance Vulnerability Risk - Equipment	\$0	\$0	\$0
<b>INFORMATION TECHNOLOGY AUDITS</b>				
2013-14948 12/18/2013	AirWatch Pre-implementation Audit	\$0	\$0	\$0
2013-15104 02/12/2014	PowerWAN Security and Architecture	\$0	\$0	\$0
2013-15284 02/25/2014	CXL Application Audit	\$0	\$0	\$0
<b>TOTAL AUDITS (20)</b>		<b>\$ 635,465</b>	<b>\$30,587</b>	<b>\$9,584,250</b>

## OIG EVALUATION REPORTS • Issued During the Six-Month Period Ended March 31, 2014

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
2012-14587 10/17/2013	NPG and CG&O Critical Spare Parts Programs	\$0	\$0	\$0
2013-14984 02/06/2014	TVA's Non-Nuclear Concerns Resolution	\$0	\$0	\$0
2012-14842 03/27/2014	Actions to Address Nuclear Plant Systems, Components, and Programs with Poor Ratings	\$0	\$0	\$0
<b>TOTAL EVALUATIONS (3)</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

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



**Widows Creek Fossil Plant**



## APPENDIX 3

**TABLE I • TOTAL QUESTIONED AND UNSUPPORTED COSTS • AUDITS**

Audit Reports	Number of Reports	Questioned Costs	Unsupported Costs
A. For which no management decision has been made by the commencement of the period	1	\$2,187,410	\$2,098,775
B. Which were issued during the reporting period	3	\$635,465	\$30,587
Subtotal (A+B)	4	\$2,822,875	\$2,129,362
C. For which a management decision was made during the reporting period	4 <sup>1</sup>	\$2,822,875	\$2,129,362
1. Dollar value of disallowed costs	4	\$308,089	\$32,567
2. Dollar value of costs not disallowed	2	\$2,514,786	\$2,096,795
D. For which no management decision has been made by the end of the reporting period	0	\$0	\$0
E. For which no management decision was made within six months of issuance	0	\$0	\$0

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

**TABLE I • TOTAL QUESTIONED AND UNSUPPORTED COSTS • EVALUATIONS**

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

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

Audit Reports	Number of Reports	Funds To Be Put To Better Use
A. For which no management decision has been made by the commencement of the period	6	\$12,990,543
B. Which were issued during the reporting period	3	\$9,584,250
Subtotal (A+B)	9	\$22,574,793
C. For which a management decision was made during the reporting period	8	\$22,160,543
1. Dollar value of recommendations agreed to by management	7	\$20,938,043
2. Dollar value of recommendations not agreed to by management	1	\$1,222,500
D. For which no management decision has been made by the end of the reporting period	1	\$414,250
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



## EVALUATION REPORTS WITH NO MANAGEMENT DECISION

The following two evaluation reports were issued before the commencement of the semiannual period; however, management decision on all the recommendations in these reports had not been received by the end of the reporting period.

Evaluation Report Number and Date	Report Title, Summary, and Explanation of Reasons Management Decision Was Not Made by the End of the Reporting Period
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2013-14950  
09/19/2013

### TVA's Succession Planning

The TVA has stated its future depends on effective succession planning and faces a potential workforce challenge due to retirements within the next five years. Also, TVA has identified a risk of senior leadership attrition that could leave a gap in key positions. This review was conducted as a follow up to a previous OIG review to assess TVA's succession planning.

Our review found TVA has made improvements to succession planning; however, areas for improvement still exist. Improvements include the use of a talent grid, implementation of succession planning metrics, and a more accurate attrition prediction model. In addition, we found TVA could strengthen some best practices.

While TVA has made progress in its succession planning process, we found through interviews and review of documentation areas for improvement still exist, including: (1) follow up on action items identified in talent reviews, including the development of organizational action plans; (2) cross-pollination of talent; (3) reduction of talent review preparation time; and (4) less frequent revisions of the talent review and succession planning process, which have caused frustration among TVA management. Additionally, TVA is working to address areas of concern regarding populating the succession plans with realistic candidates.

As part of this review, we identified succession planning best practices and compared them to the processes TVA currently has in place. Of ten best practices identified, we found TVA could strengthen executive ownership, onboarding of succession candidates, and transparency of the succession planning process. In addition to these findings, all TVA managers who were interviewed expressed concerns with the use of forced distribution for the talent grid.

We recommended the Vice President, Human Resources: (1) work in conjunction with TVA organizations to improve follow-up actions by developing organizational action plans as stated in TVA-SPP-11.301, Succession Planning, Section 3.2.3; (2) evaluate options to incorporate cross-pollination of TVA organizations into the succession planning process, including a unified succession planning system that could also reduce talent review preparation; (3) determine if changes and initiatives to the talent review and succession planning process are working and intended results are achieved before additional changes are made; (4) complete and implement the Strategic Workforce Management, Standard Programs and Processes, including a unified definition for a mission critical position; (5) work with TVA management to develop a plan that promotes executive ownership of talent development; (6) consider developing formalized transition plans, similar to the Nuclear Power Group (NPG), in other organizations; (7) clarify the succession planning process by producing a high-level, TVA-wide communication that describes the talent review and succession planning process, and consider the merits of communicating performance and potential.

We did not receive management decision or a date for final action on two of the seven recommendations, numbers one and five above, by the end of the reporting period.



## EVALUATION REPORTS WITH NO MANAGEMENT DECISION (CONTINUED)

Evaluation Report Number and Date	Report Title, Summary, and Explanation of Reasons Management Decision Was Not Made by the End of the Reporting Period
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2012-14845  
09/24/2013

### TVA's Nuclear Power Group Preventive Maintenance

Preventive Maintenance (PM) is important to the reliable operation of assets. As a result of recent issues with nuclear performance, we conducted a review of NPG's PM program to determine if nuclear plant PM had been performed in accordance with established schedules and, if not, what effect the deviations were having.

We found that the reported PM metrics may not be accurate. During our review, we identified several concerns that raised questions about the validity of the reported PM metrics. For calendar year 2012, we were provided two sets of PM metrics for each site. There were differences in the data sets and some of the differences were significant. Additionally, the three plants were not consistently using the "Counts as Deferral" flag in Maximo, thus preventing certain deferrals from being identified and considered for the deferral count. Also, we found there was inconsistency in how the Late PM metric was reported. These issues will impact the value of the NPG Equipment Reliability Index, which is part of NPG's Winning Performance Scorecard for fiscal year 2013. We also found that the deviations from PM schedules were negatively affecting system and component health. While PM program health has historically been rated poorly, there has been improvement recently. TVA started a PM Optimization (PMO) program to bring its PM program in line with industry standards. Due to slow progress at the three plants, escalations were filed to raise the concern to a higher level.

We recommended the Executive Vice President and Chief Generation Officer, Generation, take steps to (1) define methods for consistent and accurate reporting of PM metrics across the nuclear fleet, including a step for verification and retention of documentation for items manually excluded; (2) address the issue with the "Counts as Deferral" flag used in PM tracking; (3) perform an analysis to determine what impact inaccurate PM data could have on the Equipment Reliability Index calculation for fiscal year 2013 Winning Performance; (4) reduce deviations from PM schedules; (5) take necessary actions to prevent reoccurring PMO implementation problems resulting from lack of site support; and (6) expedite PMO efforts. TVA management agreed our recommendations.

We did not receive management decision on two of the six recommendations, numbers five and six above, by the end of the reporting period. However, we did receive the decisions on April 3, 2014, along with an expected date for final action of April 30, 2014, for recommendation number five, and August 31, 2014, for recommendation number six.





## AUDIT AND EVALUATION REPORTS WITH CORRECTIVE ACTIONS PENDING

As of the end of the semiannual period, final corrective actions associated with 21 audits and 7 evaluations reported in previous semiannual reports were not completed. Presented below for each audit and evaluation are the report number, date, and a brief description of final actions planned to resolve the open recommendations, including the date management expects to complete final action.

Audit Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2010-13132 06/15/2011	<b>Physical and Logical Access for Contractors</b> TVA agreed to 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. Management expects to complete final action by December 31, 2014.
2011-14177 04/23/2012	<b>Regional Operations Center and System Operations Center Cyber Security Audit</b> TVA agreed to (1) review the three servers without logon banners and, if technically feasible, add the logon banner, perform a comprehensive review of unnecessary services and protocols, implement restrictions on the basis of operations requirement, and research utilizing Secure Shell (Version 2) for remote access with vendors and, if technically feasible, implement Secure Shell; and (2) monitor all production servers using the configuration management tool. Management expects to complete final action by December 31, 2014.
2011-14244 09/28/2012	<b>TVA's Direct Load Control Program</b> TVA 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 expected to complete final action by September 30, 2013. In January 2014, management informed us it had bought out the ten-year contracts of nine of the twelve participating distributors and was working with the remaining three distributors to develop a replacement option strategy.
2012-14596 12/20/2012	<b>River Forecast Center Cyber Security Audit</b> TVA agreed to adhere to the TVA Continuous Monitoring Strategy and develop a backup and recovery process for the nonpower SCADA system and ensure necessary personnel are properly trained should the system fail. Management completed and provided notice of final action on April 1, 2014.
2012-14567 01/30/2013	<b>Building and Infrastructure Failure Risks</b> TVA agreed to (1) submit a risk-based budget request for additional funding in FY 2014, (2) reexamine TVA's approach to challenged properties under its Strategic Real Estate Plan, (3) meet with executives and operating unit leaders to improve communication of Facilities Asset Management plans and projects, (4) enhance Tririga functionality for building asset information, and (5) address weaknesses in the Tririga production database. Management expects to complete final action by March 31, 2015.
2013-14951 05/31/2013	<b>Proposal for Hydro Modernization and Unit Rehabilitation</b> TVA agreed to (1) negotiate the recommended rates and caps into the contract; and (2) reject the excessive profit rate proposed, which is expected to result in \$3.46 million in savings over the contract term. Management expects to complete final action by May 31, 2014.
2011-14276 06/10/2013	<b>MPW Industrial Services</b> TVA agreed to pursue recovery of \$315,912 of overbilled costs and \$38,066 in duplicate payments made by TVA. Management expects to complete final action by June 10, 2014.

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

Audit Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2013-15054 06/10/2013	<b>Proposal for Engineering Services</b> TVA agreed to negotiate the recommended fee rate and ODC rate into the contract, which is expected to result in about \$4.2 million in savings over the contract term. Management expects to complete final action by June 10, 2014.
2013-14983 06/14/2013	<b>Protection of Personally Identifiable Information on TVA Desktop and Laptop Computers</b> TVA management agreed to evaluate the feasibility of full disc encryption and other methods of protection of data on TVA personnel computers. Management expects to complete final action by December 31, 2014.
2012-14619 06/18/2013	<b>Effectiveness of Substation Modem Access</b> TVA Information Technology agreed to work with the business units to update the request and provisioning process and to develop processes for providing inventory information. TVA Energy Delivery is working with the meter interrogation vendor to modify the nightly program to include a check of password settings. Management expects to complete final action by September 30, 2014.
2013-15011 07/03/2013	<b>Proposal for Engineering Services</b> TVA agreed to negotiate the blended labor markup rates into the contract, which is expected to result in savings of about \$3.7 million over the contract term. Management expects to complete final action by July 3, 2014.
2013-15098 07/12/2013	<b>Proposal for Engineering Services</b> TVA agreed to (1) further negotiate an unburdened fee with the vendor, (2) incorporate the OIG reviewed rates in the contract through further negotiations with the vendor, and (3) ask the vendor to submit their actual salary ranges for the labor classifications for further review. Actions are expected to result in savings of about \$2.5 million over the contract term. Management expects to complete final action by July 12, 2014.
2013-15057 07/24/2013	<b>Proposal for Engineering Services</b> TVA agreed to negotiate a 10 percent reduction to the overhead rate in the proposed contract and request the vendor to provide their actual salary rate ranges for further review. Actions are expected to result in savings of about \$1.6 million over the contract term. Management expects to complete final action by July 24, 2014.
2013-15055 07/26/2013	<b>Proposal for Engineering Services</b> TVA agreed to (1) further negotiate a lower unburdened fee with the vendor, (2) negotiate OIG reviewed rates with the vendor, and (3) ask the vendor to submit their actual salary ranges for the labor classifications for further review. Actions are expected to result in savings of about \$5.6 million over the contract term. Management expects to complete final action by July 26, 2014.
2012-14741 08/20/2013	<b>NOL-TEC Systems, Inc.</b> TVA agreed to pursue recovery of \$252,800 in remaining overbilled costs from Nol-Tec. Management expects to complete final action by August 20, 2014.
2012-14745 08/28/2013	<b>Significant Equipment Failure Risk – Energy Delivery</b> TVA agreed to update the risk management report to clarify the description of the risk mitigation and appropriate level of acceptable financial risk and/or work to establish an appropriate level of funding needed. Management expects to complete final action by August 28, 2014.
2013-14966 08/28/2013	<b>Oversight of Distributor Compliance</b> TVA agreed to (1) test a recurring cycle from the summer, winter, and transition periods, while considering the time and cost of examination, (2) include the replacement sample methodology in the sampling methodology as an appendix in their reports, and (3) identify potential root cause activity and make recommendations to help prevent or detect errors from occurring in the future, when possible. Management expects to complete final action by April 30, 2014.



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

Audit Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2013-15203 08/29/2013	<b>Proposal For Engineering Services</b> TVA plans to (1) further negotiate a lower fee rate than proposed, on unburdened costs only with a target of 10 percent to 15 percent, (2) incorporate the OIG reviewed rates in negotiations with the vendor, and (3) require the vendor to submit actual salary ranges for labor classifications for further review. Management expects to complete final action by August 29, 2014.
2013-15308 09/10/2013	<b>AREVA DZ LLC – Review of Increase in Contract Limit</b> TVA agreed with the findings and will pursue negotiations with ADZ accordingly. However, Nuclear group’s current business model is being reevaluated in which these services may be performed in-house, thereby reducing the original projected spend. Management expects to complete final action by September 10, 2014.
2013-14993 09/18/2013	<b>TVA Valley Investment Initiative Program</b> TVA management agreed to (1) update the TVA SPP for the VII program to accurately reflect the current statuses of EGCs and financial reviews, (2) establish performance measures for the VII program, (3) implement an evaluation study of the VII program, and (4) implement guidelines for independent verification of documentation received from companies participating in the VII program. Management expects to complete final action by September 17, 2014.
2013-15215 09/26/2013	<b>Merrick &amp; Company</b> TVA is in the process of negotiating lower fee rates on unburdened labor costs with Merrick and its subcontractor, Atkins. Management expects to complete final action by September 26, 2014.
Evaluation Report Number and Date	Report Title and Recommendations on which Final Action is Not Complete
2008-11829 06/02/2010	<b>TVA Records Retention</b> TVA agreed to continue current plans to replace the Electronic Data Management System. Management expects to complete final action by May 29, 2015.
2009-12991 06/21/2011	<b>TVA Groundwater Monitoring at Coal Combustion Products Disposal Areas</b> 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.
2012-14535 03/21/2013	<b>Master Key Program Management – Energy Delivery</b> TVA agreed to secure facilities protected by MA keys to minimize the risk posed by keys outside TVA’s control. Management expects to complete final action by September 30, 2016.
2012-14523 05/14/2013	<b>Coal and Gas Operations Emergency Preparedness and Response</b> TVA agreed to standardize program management and emergency plans, continue toward an in-depth emergency management program through the training and exercise program, and evaluate work balance in emergency roles of shift operations supervisors. Management expects to complete final action by May 14, 2014.
2012-14623 06/27/2013	<b>Watts Bar Nuclear Unit 2 Quality Assurance Program</b> TVA agreed to make implementing the process for the transfer of authority for the execution of the QA program from Bechtel Quality Assurance (QA) to Nuclear Construction QA a priority. Management expects to complete final action by June 27, 2014.

**AUDIT AND EVALUATION REPORTS WITH CORRECTIVE ACTIONS PENDING**

Evaluations Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
<b>2012-14636 08/28/2013</b>	<b>Master Key Program Management – Property &amp; Natural Resources</b> TVA agreed to develop standard policies and procedures and secure facilities protected by master keys to minimize the risk posed by master keys outside TVA's control. Management expects to complete final action by September 30, 2015.
<b>2012-14789 09/27/2013</b>	<b>TVA's Capital Projects Approval Process</b> TVA agreed to design and implement a forecasting and project prioritization process that will capture budget and forecasting information at a project level in a timely, accurate manner. Management expects to complete final action by September 30, 2014.

**Bellefonte Nuclear Plant**



## APPENDIX 6

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

#### Referrals

Subjects Referred to U.S. Attorneys	14
Subjects Referred to State/Local Authorities	2

#### Results

Subject Indicted	5
Subjects Convicted	1
Pretrial Diversion	1
Referrals Declined	20

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



**Boone Dam**



## HIGHLIGHTS - STATISTICS

	MAR 31, 2014	SEPT 30, 2013	MAR 31, 2013	SEPT 30, 2012	MAR 31, 2012
<b>AUDITS</b>					
<b>AUDIT STATISTICS</b>					
Carried Forward	28	38	32	35	34
Started	17	21	23	28	23
Canceled	(1)	(1)	(1)	(6)	(2)
Completed	(20)	(30)	(16)	(25)	(20)
In Progress at End of Reporting Period	24	28	38	32	35
<b>AUDIT RESULTS (Thousands)</b>					
Questioned Costs	\$635	\$2,916	\$1,262	\$11,708	\$5,110
Disallowed by TVA	\$308	\$647	\$2,039	\$9,153	\$5,695
Recovered by TVA	\$164	\$2,447	\$559	\$4,168 <sup>1</sup>	\$1,143 <sup>2</sup>
Funds to Be Put to Better Use	\$9,584	\$36,522	\$0	\$10,204	\$6,702
Agreed to by TVA	\$20,938	\$23,100	\$0	\$1,235	\$9,558
Realized by TVA	\$375	\$2,479	\$145	\$1,235	\$2,441 <sup>3</sup>
<b>OTHER AUDIT-RELATED PROJECTS</b>					
Completed	5	5	7	10	9
Cost Savings Identified/Realized (Thousands)	\$0	\$0	\$0	\$0	\$0
<b>EVALUATIONS</b>					
Completed	3	6	6	6	1
Cost Savings Identified/Realized (Thousands)	\$0	\$0	\$0	\$0	\$0
<b>INVESTIGATIONS<sup>4</sup></b>					
<b>INVESTIGATION CASELOAD</b>					
Opened	112	173	134	148	178
Closed	148	158	105	157	202
In Progress at End of Reporting Period	150	179	160	128	146
<b>INVESTIGATIVE RESULTS (Thousands)</b>					
Recoveries	\$10,874.7 <sup>5</sup>	\$899.9	\$0	\$4,416.4	\$17.5
Savings	\$0	\$550.4	\$770.2	\$1,454.7	\$0
Fines/Penalties	\$1	\$603.8	\$0	\$0.3	\$1.7
Other Monetary Loss	\$0	\$519.3	\$0	\$83.4	\$496,500
<b>MANAGEMENT ACTIONS</b>					
Disciplinary Actions Taken (No. of Subjects)	22	18	16	11	19
Counseling/Management Techniques Employed (No. of Cases)	14	20	14	20	24
Debarment	0	0	0	0	2
<b>PROSECUTIVE ACTIVITIES (No. of Subjects)</b>					
Referred to U.S. Attorneys	14	18	13	12	14
Referred to State/Local Authorities	2	0	0	7	1
Indicted	5	0	2	1	5
Convicted	1	2	4	1	4
Pretrial Diversion	1	0	0	0	1

<sup>1</sup> Includes \$109,054 recovered in excess of amounts decided by management.

<sup>2</sup> Includes \$198,352 recovered in excess of amounts decided by management.

<sup>3</sup> Includes \$18,474 savings realized in excess of amounts decided by management.

<sup>4</sup> These numbers include task force activities and joint investigations with other agencies.

<sup>5</sup> \$10,794,728 of this total is restitution ordered in a TVA OIG led federal criminal case.

The defendant was ordered to repay victims of a Ponzi scheme, the largest portion of which was comprised of his fraudulent collection of money from Valley-wide investors under the pretense that they were helping fund the Kingston ash spill remediation.

### 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.





## 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*. 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, 2013. The review was performed by the Special Inspector General for the Troubled Asset Relief Program (SIGTARP). The SIGTARP issued the report, dated March 31, 2014, in which it concluded the TVA OIG audit organization's system of quality control for the fiscal year ended September 30, 2013, was suitably designed and complied with to provide the OIG with reasonable assurance of performing and reporting in conformity with applicable professional auditing standards in all material respects. Accordingly, the TVA OIG received a rating of pass. The peer review report is posted on our Web site at <http://www.oig.tva.gov/PDF/PeerReviewReport03312014.pdf>.

### Investigations Peer Review

Investigative operations undergoes an external peer review, Quality Assessment Review (QAR), at least once every three years. The United States Department of Commerce OIG conducted a QAR of the TVA OIG Investigative Operations. The Commerce OIG found the "...system of internal safeguards and management procedures for the investigative function of the Office of Inspector General for the Tennessee Valley Authority in effect for the year ended April 30, 2013, is in compliance with the quality standards established by CIGIE and the applicable Attorney General guidelines. These safeguards and procedures provide reasonable assurance of conforming with professional standards in the planning, execution and reporting of its investigations." The QAR report can be found on our Web site at <http://oig.tva.gov/PDF/22NOV2013-tvaog-inv-peer-review.pdf>.



The background of the page is an abstract composition of overlapping, semi-transparent blue polygons of various shapes and sizes, creating a dynamic, crystalline effect. A solid dark blue horizontal band runs across the middle of the page, serving as a backdrop for the title text.

# **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.

BYOD .....	Bring Your Own Device
CDE .....	Clarksville Department of Electricity
C&GO.....	Coal & Gas Operations
CO .....	Coal Operations
ECP .....	Employee Concerns Program
ERM .....	Enterprise Risk Management
FTP .....	Financial Trading Program
FY .....	Fiscal Year
IG .....	Inspector General
IPIA.....	Improper Payment Information Act
IT .....	Information Technology
MDM .....	Mobile Device Management
Mercatus.....	Mercatus Energy Advisors
NPG.....	Nuclear Power Group
OIG.....	Office of the Inspector General
PM .....	Preventive Maintenance
PMO .....	Preventive Maintenance Optimization
QA .....	Quality Assurance
TVA.....	Tennessee Valley Authority
WP .....	Winning Performance



## OFFICE of the **INSPECTOR GENERAL**

400 West Summit Hill Drive  
Knoxville, Tennessee 37902

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

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

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

# BE A HERO

## REPORT FRAUD

Contact the OIG EmPowerline® at 855-882-8585  
or online at [www.OIGempowerline.com](http://www.OIGempowerline.com)

YOU CAN MAKE A DIFFERENCE

If you see or suspect wrongdoing, say something. TVA may be able to recover money and you could receive a cash reward from the TVA Office of the Inspector General. Visit our EmPowerline® Web site at [www.oigempowerline.com](http://www.oigempowerline.com) or call toll-free at 855-882-8585.

## 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, 2013 - March 31, 2014