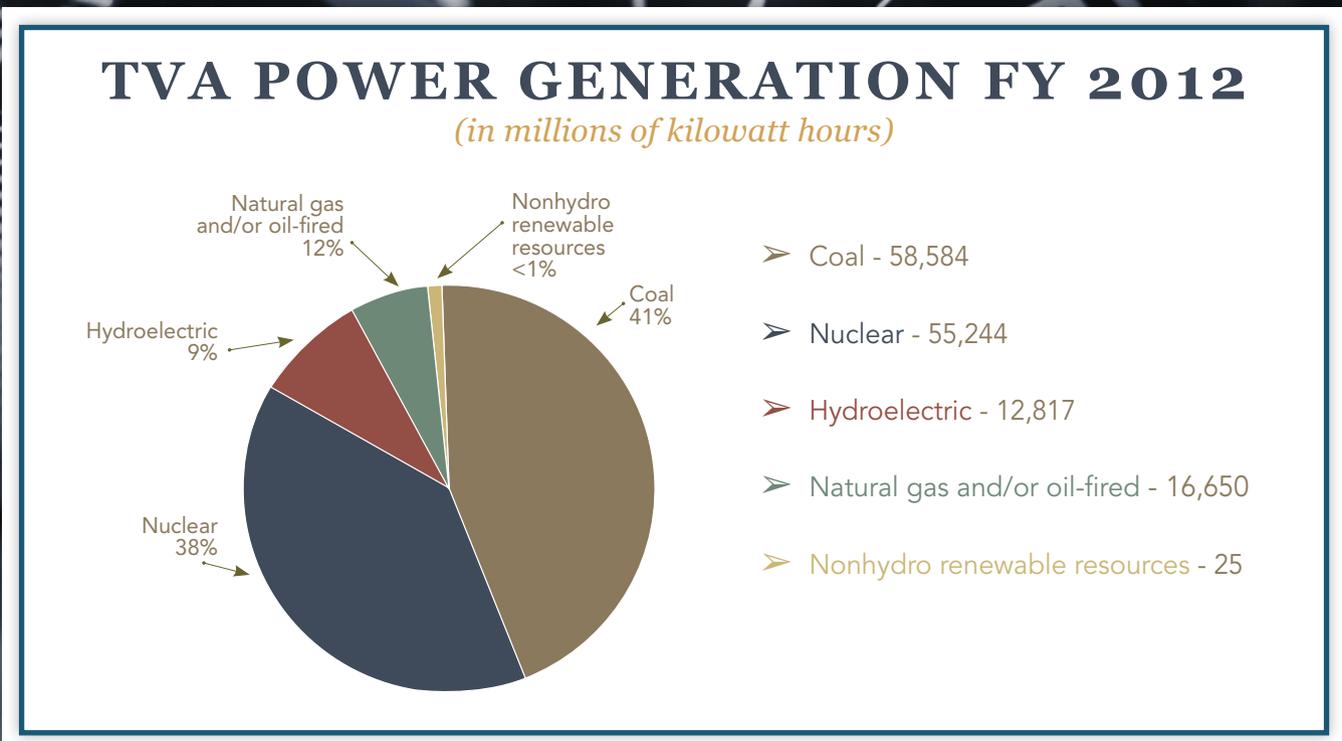
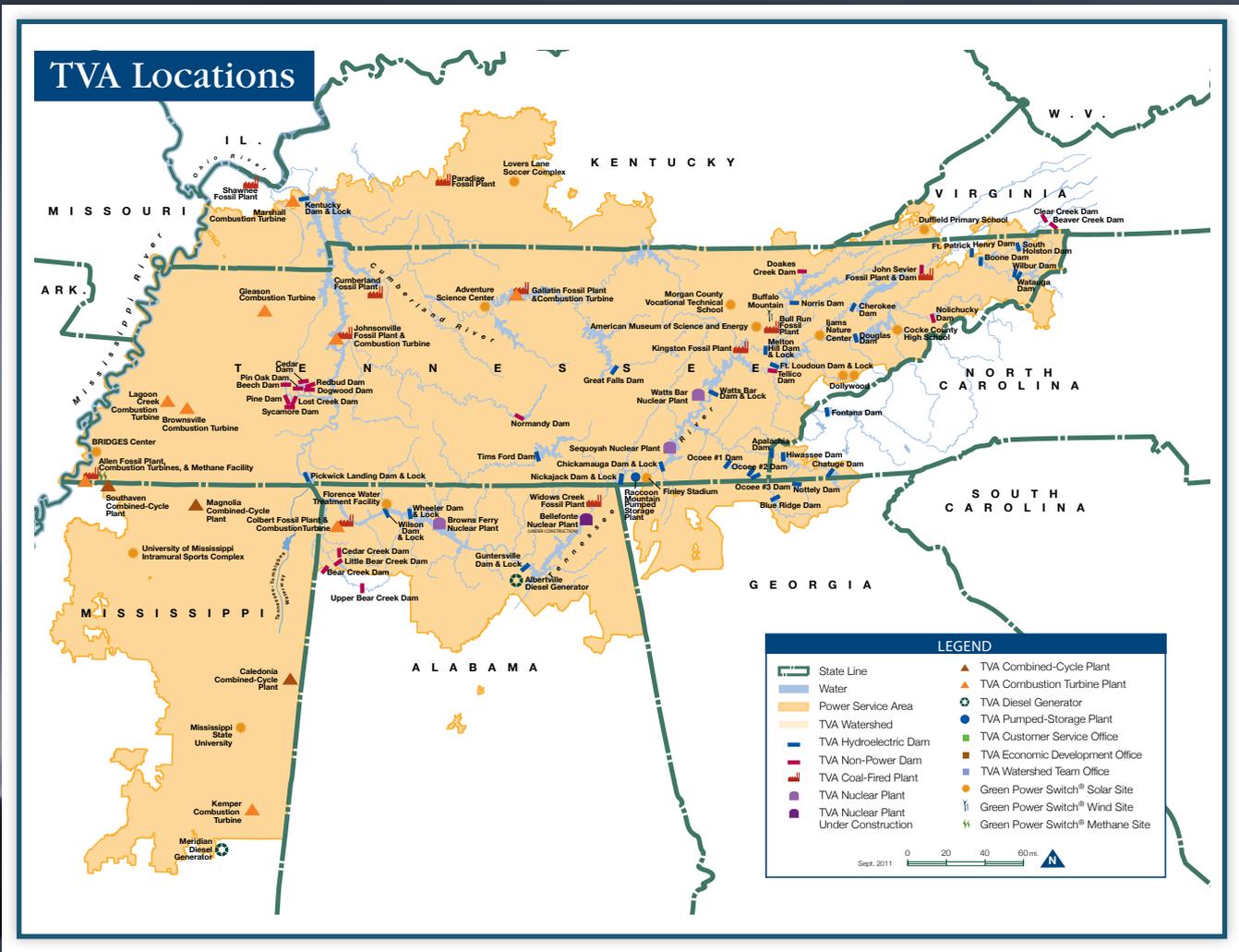


Office of the Inspector General  
TENNESSEE VALLEY AUTHORITY  
*Semiannual Report*  
April 1, 2012 - September 30, 2012



# NAVIGATING RISK

• *A FOCUS ON CYBER SECURITY* •



Source: TVA FY 2012 Annual Report

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## MESSAGE FROM THE INSPECTOR GENERAL

I am pleased to present our report for the period April 1, 2012, through September 30, 2012. Once again our theme focuses on navigating risks faced by the Tennessee Valley Authority (TVA)—specifically, cyber security risk. Business leaders and government officials alike recognize the significant risk posed from cyber security threats that are constantly changing. As discussed in the feature article in this semiannual report, given what is at stake, it is imperative that agencies are agile enough to handle not only their identified historical threats, but any future threats as well.



In August 2012, TVA's Chief Executive Officer (CEO), Tom Kilgore, announced his intention to retire by the end of this year after seven years with TVA. On behalf of the OIG, I extend to Mr. Kilgore our appreciation for his many contributions to TVA over the years, and we wish him well in his retirement.

Also, at the end of the year, two of TVA's Board members end their service. Bishop William Graves, who has served on the People and Performance, and Finance, Rates, and Portfolio committees, and Marilyn Brown, who has served as chair of the Nuclear Oversight Committee as well as a member of the External Relations Committee, will rotate off as the 112th Congress ends. On behalf of the OIG, I want to extend my thanks for their support of the OIG and service to TVA.

President Barack Obama has nominated Marilyn Brown for an additional term on the Board

All of the work that we do in the Office of the Inspector General (OIG) is aimed at reducing risks for TVA. Our accomplishments for this semiannual period all reflect, in one way or the other, how the OIG has made TVA better by reducing risks. Our audit, evaluation, and investigation activities resulted in almost \$28 million in recoveries, fines/penalties, waste, potential savings, questioned costs, or funds which could be put to better use, as well as numerous recommendations to help TVA become better and recognize areas where additional controls may be necessary to adequately manage risks. Some of the highlights include:

- Reviews that identified areas in which controls over (1) a critical transmission asset needed improvement and (2) TVA's privacy program were not effective.
- Reviews that determined improvements were needed in TVA's plans to address craft labor shortages and in the lessons learned process after a construction project is completed.
- Reviews of the Financial Trading Program and Direct Load Control Program which identified needed improvements to increase the effectiveness of the programs.
- An evaluation of a project management system which found TVA achieved some project management capability but considerable opportunity for improvement exists.
- Investigations which resulted in one individual convicted in federal court; three others sentenced federally on varying charges, such as workers' compensation fraud, false statements, and theft; and another indicted on state charges.



*Holston Reservoir*

along with four other individuals. Currently, it appears unlikely these individuals will be confirmed by the Senate before the end of the year.

Finally, during the next semiannual period, TVA will once again

transition under new leadership with the appointment of a new CEO and, hopefully, confirmation of additional Board members. The OIG will work to promote TVA's mission by continuing to provide independent and objective audits,

evaluations, and investigations to enable TVA leadership to successfully lead TVA forward.

A handwritten signature in black ink that reads "Richard W. Moore". The signature is written in a cursive, flowing style.

Richard W. Moore  
Inspector General

# NAVIGATING RISK

*A Focus on Cyber Security*



## *Navigating Risk: A Focus on Cyber Security*

In our Fall 2011 semiannual report, we examined the intersection of federal agency and Inspector General (IG) responsibilities for assessing and dealing with risks to the agency. In this article, we focus on the role of the IG for one key risk area common to government, business, and individuals—cyber security.



Like in many risk areas, the OIG seeks to contribute to finding solutions rather than just finding problems. Contributing to the solution in the cyber security arena means, among other things, that the IG and his or her team: (1) have the right mindset about how severe the actual risk is for the agency, (2) make it safe for agency leaders to voice their assessment of the actual risk of cyber security, and (3) collaborate closely with the agency to find meaningful mitigation strategies.

While individual cyber security laws enacted over the years have heightened awareness and promoted accountability, the myriad of cyber security laws and regulations<sup>1</sup> can unduly burden federal agencies. Faced with limited budgets and resources, the sheer magnitude of the work required to be minimally compliant can foster a “checklist” mentality by agency employees. The OIG

can actually reinforce this mentality if it is primarily checking for compliance with existing laws and regulations without encouraging the agency to do a deep dive risk assessment. As a result, the agency may spend more time and money than ever before, but ultimately not invest in the kind of meaningful changes that truly reduce cyber security risks. Needless to say, this is a poor option given the high stakes.

In this article, we explore meaningful work for the OIG in the cyber security arena that adds value for the agency. Hitting the proverbial “pause button” for both the agency and the OIG to consider our respective roles in actually reducing the risks of a cyber security disaster is critical.

### **THE RIGHT MINDSET**

Accurately assessing the severity of the cyber security risk for a federal agency is a function

of an agency’s enterprise risk management system. That assessment must be approached with a particular mindset similar to the current mindset of federal law enforcement and intelligence agencies, post 9/11, in assessing physical security threat levels. That means knowing the enemy, coordinating the gathering and sharing of intelligence, boosting the appropriate skill levels and, more than anything else, nimbly pivoting and making judicious use of resources to meet escalating dangers revealed in real time.

So what exactly would be the “right mindset” for both an agency and the OIG to have about cyber security? The right mindset is simply having the same level of diligence required to defend against a physical terrorist attack—this is war and we are all in the same foxhole together. There should be no stovepiping, turf wars, or simply

<sup>1</sup> Regulations impacting cyber security come from the U. S. Department of Homeland Security, authorized by the Federal Information Security Management Act of 2002 (FISMA); E-Government Act of 2002 (Section 208 – Privacy); Federal Energy Regulatory Commission regulations, including those implementing the industry standards set by the North American Electric Reliability Corporation; Office of Management and Budget (OMB) Directives; National Institute of Standards and Technology regulations; and the Federal Information Processing Standard standards, to name some primary sources of regulation. Furthermore, more than 40 bills and resolutions impacting cyber security are pending before Congress (Cybersecurity: Authoritative Reports and Resources, September 22, 2012, Congressional Research Services).

checking the box in this particular foxhole. Perhaps the Secretary of Defense, Leon Panetta, said it best recently when he stated:

*Before September 11, 2001 the warning signs were there. We weren't organized. We weren't ready. And we suffered terribly for that. We cannot let that happen again. This is a pre-9/11 moment. The attackers are plotting. Our systems will never be impenetrable, just like our physical defenses are not perfect. But more can be done to improve them.*

As with all risks, it is first the agency's, and not the OIG's, responsibility to identify and mitigate this risk. However, the OIG plays an integral role in helping its agency prepare its defenses to constantly changing threats. In helping the agency defend against cyber security risks, the role of the OIG focuses on accurately assessing the sufficiency of the agency's security program for information technology (IT). The OIG does this by identifying unrecognized vulnerabilities. To be effective in assisting the agency, the OIG must project we get this is, in a real sense, "war" and the OIG is about confronting the enemy and not simply checking the compliance box.

## **MAKING IT SAFE**

The best designed risk management program is destined to fail if the culture of the agency does not make it safe for employees at all levels to raise risks. Employees and contractors pointing out vulnerabilities in current operations can be threatening to management. Confrontations can occur if there is a difference of opinion about what the risks are and how to mitigate them; particularly if employees' comments are viewed as challenging management's assessment. Employees and contractors are key players in recognizing cyber security risks as well as in the effectiveness of risk mitigation strategies. Therefore, it is crucial that a safe environment is in place so that employees and contractors will "raise their hand" if they see something that does not look or feel right. Employees and contractors will not settle for just talk about management being open to differing opinions. They will evaluate what actually happens to employees who take a chance and challenge management's thinking in a respectful way. Bringing the best ideas to the table, no matter who has them, is a must in the cyber security arena.

Another area of importance is the relationship between the OIG and the agency's cyber security team and management. The

quality of this relationship drives the effectiveness of OIG reviews and the agency's efforts in cyber security. If there is a tortured history between the OIG and agency employees, that must be addressed before any progress can be made. This requires engaging in some "straight talk," which can be awkward. There are certain realities that both sides must acknowledge. The OIG is viewed as carrying a "big stick," and its public reports can be critical of leadership and performance on the part of agency employees. Agency employees can justifiably question whether they have the option to "push back" against OIG findings and recommendations since the OIG usually has the last word. Agency employees can respond with frustratingly long implementations of OIG recommendations, creating a virtual stalemate. All this adds up to the potential for a lot of wasted energy in a subtle jousting match that ultimately makes the agency more vulnerable.

Key to this process of building the right relationship between the OIG and its agency is to be able to articulate the shared mutual purpose of both parties. The reality is that we all want to reduce risks in cyber security. No one in the agency or the OIG wants the agency to fall victim to a cyber attack. We may disagree, however, about the best tactics to use to

prevent or detect an attack. This is where it becomes crucial that IGs and their agencies have open, honest dialogue on differences. While this may sound easy enough, too many times this is where the breakdown occurs.

If an agency leader or staff member does not feel it is “safe” to voice their opinion or disagreement with the IG, then the effectiveness of our recommendations could be significantly diminished. These conversations will not happen if along the way we have not taken time to develop working relationships built on mutual respect and trust. That does not mean we always have to agree, but it does mean we should actively seek the opinion of, and listen to, each other when determining the best course of action. This sounds intuitive, but in practice it is the exception rather than the rule.

Over the years, we have conducted many reviews of TVA in the cyber security area which included security reviews of specific technical areas, privacy reviews, mandated reviews such as FISMA, and effectiveness reviews of IT security and the IT organization. These reviews produced numerous findings and recommendations for TVA to remediate. After a lot of time and effort, many of those recommendations were implemented and the findings were closed. Yet in subsequent



reviews, we started seeing a lot of repeat findings. What did that say about the effectiveness of TVA’s remediation? What did that say about the effectiveness of our reviews? We were auditing to the regulations and standards, but was TVA really any better off? As a result, we started taking a hard look at our relationships with TVA and how we were conducting our reviews.

One thing became apparent—change was needed and that change needed to start with the OIG. We began by taking a hard look at our relationship with TVA’s IT organization and how to improve it. We recognized that a critical component of building trust with agency employees was sharpening our communication skills. We all went to “school.” Auditors and investigators acquired a new set of “tools” to engage IT employees in a respectful way that helped diffuse potential conflict or helped resolve conflict. These communication skills are not

common to most people.

Once our auditors had enhanced their trust-building communication skills and behaviors, we were better able to have open, honest dialogue in an atmosphere where a discussion of mutual purpose was more real. Through these discussions we better understood each other, what each was striving to accomplish, and found better ways to conduct and communicate the results of our reviews. As a result, we broadened our approach from checking compliance to focusing on identifying risks and evaluating risk mitigation strategies and the maturity level of risk mitigation plans within each strategy. In every review we keep the OIG mission in front of us by asking the question—“Will this help TVA become better?”

## **COLLABORATION**

One thing that is clear in cyber security is the way to best protect ourselves will require collaboration. Technology has allowed the world



staff. Are we in the command and control mode of “Now Hear This!” or are we having discussions where we actively discuss and debate recommendations with an open mind? To be effective, we must obviously choose the latter.

A discussion on recommendations might, for example, include an auditor asking a TVA employee or manager, “Does this recommendation make sense to you?” or “Do you think this recommendation will help reduce the agency’s risks?” If they tell us “No,” then we need to be willing to listen and keep the dialogue going to see if there is a better recommendation. If they tell us compliance with a certain standard is not cost effective or not achieving better security and we agree, then it is incumbent on us to elevate that concern to the appropriate group. One way the IG is uniquely qualified to do this is through our Legislative Review section of our semiannual report. Congress has invited Inspectors General to make recommendations in our semiannual report to Congress on the impact of existing and pending legislation.

In reality, OIGs and agency employees have conflict every day that is either resolved responsibly for the mutual benefit of everyone or there is an “I win/you lose” conclusion that breeds distrust. Every interaction with agency employees results in either the OIG building trust with them or

to interact and collaborate in ways we would have never thought possible ten years ago. Today, the need to work together to find solutions to cyber security risks is important as public and private sectors are dependent on each other and on common cyber resources.

As Secretary Panetta stated:

*The private sector, government, military, and our allies all share the same global infrastructure—and we all share the responsibility to protect it. . . . Ultimately, no one has a greater interest in cyber security than the businesses that depend on a safe, secure, and resilient global digital infrastructure—particularly those who operate the critical networks we must help defend.*

TVA, as the largest public power producer in the country and a government corporation, is a part of the nation’s critical infrastructure. As such, collaboration and

information sharing is integral to finding cost effective solutions to reduce the cyber security risks. In this battle, the agency, IG, and private sector experts will all need to be in the same proverbial foxhole together working on solutions.

So how do we achieve the level of collaboration needed in this environment? Collaboration does not just happen. There are many factors that affect whether collaboration will occur and how successful it will be. Critical components include: making it safe to have the tough discussions, as we have discussed above; establishing a mutual purpose so everyone is working toward the same goal, such as how to best secure our networks against the constantly changing threats; and establishing and maintaining trust. In the end, it all comes down to relationships and how well we establish and maintain those relationships.

For OIGs, this may mean taking a critical look at how we interact with agency management and

reducing trust. People know whether you are sincere or simply out to “win.” Winning, of course, in the cyber security arena means everybody contributed to a winning strategy that protected the agency. Winning is not that one side or the other “won” a particular point.

Additionally, IGs need to look for nontraditional ways to collaborate and enhance the skills and knowledge of their staff. For example, we conduct fraud risk assessments within various areas of TVA, not only to encourage TVA employees to “own” fraud risks in their area, but also to give OIG auditors and investigators an opportunity to engage in an environment where TVA employees see us actively partnering with them to make TVA better. We learn more about what it’s like to be in the TVA employees’ shoes and, hopefully, the TVA employees take away a better understanding of what it’s like in our world. These fraud risk assessments, although not necessarily tied to cyber security, build relationships that serve us all well across TVA. In this semiannual period, we facilitated a fraud risk assessment with TVA’s Enterprise Information Security & Policy (EIS&P) organization to identify fraud and related risks in relation to securing TVA cyber and digital assets.

A part of the OIG strategy also includes increasing our efforts to promote collaboration and

information sharing with not only TVA but with other external organizations involved in auditing, investigating, and operational aspects of cyber security. In our Noteworthy Undertakings section of this semiannual report, you can read more on a couple of the efforts in this area:

(1) co-sponsoring of the East Tennessee Cyber Security Summit, which promotes networking and information sharing among IT professionals in academia, government, law, and private industry from across the region; and (2) our fraud risk assessment program.

In the end, collaboration provides knowledge so that we give meaningful, actionable recommendations that, when implemented, make a difference in the agency’s security posture and lowers the overall risk to the agency.

## CONCLUSION

In a post 9/11 world, focused vigilance against the next big “war” of cyber attacks requires innovation and the will to win. Winning in this arena for government agencies, like TVA, means: (1) having the right mindset about cyber security, (2) making it safe for everyone to bring their best ideas to the table, and (3) collaborating with the OIG to achieve our mutual purpose of defending against a cyber attack. We cannot go back to the “checklist” mentality or simply rely

on technical compliance with laws and regulations.

So, what is the very best use of an OIG in this arena? It is imperative that we step back and look not just at “what” (audits, evaluations, and investigations) we are doing, but we must also look critically at “how” we are doing what we do. Is our OIG staff building trust by their competence and character that encourages the best response by agency employees? Are we leading by example in making it safe to challenge our findings in a productive environment? Do we have the right communication “tools” to engage in crucial conversations about high stakes issues? Do we make it easy for agency employees to partner with the OIG because they believe we share a mutual purpose?

Our experience has been that TVA executives and employees appreciate the opportunity to have “straight talk” about cyber security challenges with the OIG, and they welcome the opportunity to collaborate to prepare for the increasingly sinister threats facing all government agencies. They often improve on our recommendations, and they help educate the OIG about how their world really works. Together, we stand a much better chance of fortifying TVA against cyber attacks and, in the process, we build lasting trust to meet the challenges of tomorrow—whatever they may be.

# NOTEWORTHY

*Undertakings*



## NOTEWORTHY UNDERTAKINGS

### *OIG Fraud Risk Assessment Program*

The area of greatest collaboration between the OIG and TVA in assessing risks for TVA has to be our Fraud Risk Assessment (FRA) program because the OIG takes off our traditional “hat” of doing audits and investigations. In this program, we facilitate TVA employees identifying fraud risks for TVA rather than the OIG simply pointing out vulnerabilities and making recommendations. This is a “hands on” TVA employee process that drives the identification of risks throughout the organization and provides an exceptional level of ownership by the TVA employees participating.



In 2004, the OIG kicked off a TVA-wide FRA initiative. An FRA is a proactive tool used by the OIG in conjunction with TVA business organizations to identify fraud risks. The goal of the OIG is partnering with TVA management to identify (1) types of fraud that can occur, (2) the likelihood and significance of fraud occurring, (3) controls in place to prevent fraud, and (4) remediation needed to improve fraud prevention controls.

Normally, an organization’s involvement with our office is either related to an audit, evaluation, or an investigation; however, the FRA is an opportunity for TVA management to interact with the OIG in a collaborative, yet different, capacity.

An FRA also allows OIG staff to meet TVA employees and to answer any questions they have about our office and how it works. It gives TVA a face to associate with the OIG, as some employees

have never previously interacted with our office. By offering this constructive environment, the OIG and participating TVA organization are able to build strong, positive working relationships. While the primary purpose of FRAs is to reduce risks for TVA, the collateral benefit is the trust that is built between the OIG staff and TVA employees.

OIG auditors and investigators meet with a TVA organization to discuss the FRA process and determine the best fit for the organization’s needs. During this meeting, logistics are discussed since the OIG wants the organization to be comfortable and participate freely during the FRA process. The OIG has found TVA management to be very receptive to these meetings because it allows managers to ask questions and address concerns prior to the actual FRA.

The OIG understands employees and managers may be hesitant to openly provide information that may reflect negatively on them or their organization. During the FRA, there are no “gotcha” moments. The business organization participants are asked to “think like the bad guy” and brainstorm ways to defraud TVA if there were no controls.

Some examples of fraud schemes discussed during various FRAs include (1) an employee getting hurt at home then claiming he was injured on the job to receive workers’ compensation benefits, (2) a TVA contractor providing false documentation claiming work was completed when it was not, and (3) a subcontractor including “ghost” employees on its payroll causing financial loss to TVA. During our discussions on various fraud schemes, actual cases are discussed to give the TVA organization a glimpse into the real world of fraud at TVA.



identified as high impact, an organization would be advised to review current controls and implement new controls as needed. Such controls include ethics training, management review, and software training.

Since 2004, the OIG has completed approximately 30 FRAs. During this reporting period, the OIG completed four FRAs with TVA management. These FRAs were conducted jointly with (1) a major TVA nuclear and fossil contractor, (2) physical security staff at a nuclear plant, and (3) two other TVA business organizations, including EIS&P. A number of risk areas and remediation steps were identified during these FRAs. These organizations now have a road map—the FRA—to enact any necessary improvements.

This initiative continues to be an ongoing process to assist TVA in effectively ensuring there are adequate antifraud controls across all TVA business units. The FRA allows our office and TVA's business organizations to build meaningful, collaborative relationships in an ongoing effort to protect TVA's assets. This is another example where TVA and the OIG working together make TVA better.

### **EAST TENNESSEE CYBER SECURITY SUMMIT**

As discussed in the feature, cyber security is one of the top risks for businesses and government alike.

While focused on the various fraud schemes, we also discuss how many people participate in these schemes. For example, there are fraud schemes carried out by an individual, by two or more individuals acting in collusion, or by a third party outside TVA. Generally, collusive fraud is the most dangerous, but all fraud is costly to the company having an impact on the company's reputation and credibility. Do you remember Enron and Arthur Andersen?

After employees have removed their "fraudster" hats, all the fraud schemes and risk areas identified are captured in writing. The TVA

organization then lists current controls in place to prevent the identified fraud schemes. Together, the business unit and the OIG identify controls not in place that need to be initiated to protect TVA. Once the FRA has taken place, the information discussed is reviewed by both the OIG and the TVA organization to produce a final product.

The final product includes a risk map that provides a quick reference to the importance of the schemes identified. Specifically, the fraud schemes are identified as being high, medium, or low impact based on their potential damage to TVA. For those schemes



Kyle Cox, TVA OIG; Brent Watkins, FBI; Andrea Brackett, TVA EIS&P; Rob Arnold, TVA EIS&P; Sarah Huffman, TVA OIG; Casey Rackley, Fountainhead College of Technology; and, Pat Payne, ORNL are pictured at the 2012 Cyber Security Summit.

As such, and with the constantly changing landscape of threats, the importance of collaborating and sharing information is critical in the fight to protect assets and information. For the past eight years, the OIG along with the University of Tennessee, Federal Bureau of Investigation (FBI), TVA, Oak Ridge National Laboratory (ORNL), and Fountainhead College of Technology have co-sponsored the East Tennessee Security Summit. This regional

summit is a great opportunity for IT professionals to network and learn about the threat landscape and current cyber security trends. The planning committee attracts the profession's top talent to come and share their insight with individuals working in the field.

The conference has grown significantly over the years and has a high number of repeat attendees. This year, the summit took place October 23 and 24

in Knoxville and had more than 350 in attendance. Attendees generally include IT professionals in academia, government, law, and private industry from across the region. Sponsorship of this conference is just one more way we can help business and government staff keep up with the latest threat information and mitigation strategies as well as build strong cross-organization working relations.

# EXECUTIVE

*Overview*



## EXECUTIVE OVERVIEW

Arguably, one of the greatest risks facing any organization today is cyber security. Government and businesses alike depend on the same global infrastructure and have an interest in ensuring its security. Today, technology is evolving at a rapid pace. While this evolution provides many benefits, it also presents a formidable security challenge for all companies, especially those, like TVA, whose mission involves operating and protecting critical aspects of the nation's infrastructure. In this semiannual report, we focus on the role the OIG plays in helping agencies reduce their cyber security risks.



## AUDITS

During this reporting period, the TVA OIG completed 25 audits, reviews, and agreed-upon procedures. Our work identified more than \$11.7 million in questioned costs, helped TVA to recover more than \$4 million, and identified more than \$10.2 million in funds to be put to better use. This work also identified numerous opportunities for TVA to improve its programs and operations.

### Operational Audits

The team completed four reviews related to craft labor staffing, TVA's new expense management application implementation, lessons learned during construction of Lagoon Creek Combined Cycle (LCC) plant, and green power. Specifically, the team (1) identified improvements needed to mitigate the risks and potential effects of craft labor shortages, (2) concluded adequate analysis was not performed when making the decision to implement

a new expense management system, and (3) identified improvements needed for the construction lessons learned management process. Finally, the team applied certain procedures determined by the Center for Resource Solutions (CRS) to TVA's Green Pricing Accreditation Program to provide assurance that TVA was in compliance with the annual reporting requirements of the program. The Operational Audits section begins on page 27 of this report.

### Contract Audits

To support TVA management in negotiating procurement actions, we completed four preaward reviews of cost proposals submitted by companies proposing to provide engineering services for work at TVA's Bellefonte Nuclear Plant Unit 1, and project controls support for TVA's generation construction projects. Our audits identified \$10.2 million of potential savings opportunities for TVA to negotiate. We also completed five

compliance audits of contracts with expenditures totaling \$458 million related to (1) hydroblasting services at TVA locations; (2) engineering, procurement, and construction services in support of the completion of TVA's Watts Bar Nuclear Plant (Watts Bar) Unit 2; (3) fly ash management services at TVA's Johnsonville Fossil Plant; (4) Authorized Inspection Agency services at TVA nuclear plants; and (5) material escalation costs for components provided in support of the completion of the Watts Bar Unit 2 Nuclear Steam Supply System. These audits identified potential overbillings of \$8.1 million. The Contract Audits section begins on page 30 of this report.

### IT Audits

During this semiannual period, we completed seven audits in the IT environment on (1) implementation controls for two applications; (2) controls over TVA personally identifiable information (PII) held



*Kingston Fossil Plant*

by two private third parties; (3) IT general controls for the transmission control center, its backup, and a substation; and (4) the OIG's biennial assessment of TVA's controls to protect PII. Our audits found implementation controls were effective, data protection controls were generally effective, IT general controls for transmission facilities could be improved, and TVA's privacy program had only marginally improved. The IT Audits section begins on page 32 of this report.

### **Corporate Governance and Finance Audits**

With a focus on TVA's role as a regulator, distributors' compliance with the wholesale power

contract, and financial reporting, we completed audits of (1) TVA's Financial Trading Program (FTP) where our audit determined the design of TVA's FTP control structure was appropriate, but also identified several areas where management oversight should be improved; (2) TVA's Direct Load Control Program (DLC) where our audit determined the DLC Program is not operating effectively, and TVA is not employing two key oversight mechanisms afforded by the DLC contract; and (3) compliance with key terms in contracts between TVA and two distributors where our audits identified an underpayment to TVA of more than \$3.6 million as well as other isolated instances of noncompliance with the

power contract. The Corporate Governance and Finance Audits section begins on page 35 of this report.

### **EVALUATIONS**

During this semiannual period, Evaluations completed five<sup>2</sup> reviews. The team completed a review of non-time-critical Kingston ash recovery project activities, as part of the OIG's ongoing commitment to provide oversight of the Kingston ash spill cleanup. While TVA is making progress in the completion of non-time-critical activities, we found that several activities reviewed did not meet scheduled completion dates which, if continued, could

<sup>2</sup> Inspection 2010-13088 Status Review of the Watts Bar Unit 2 Construction Project Schedule and Budget was completed during this semiannual period; however, due to the significance of the review it was included in the previous semiannual report.

create an increased risk for delay of the overall project completion. Evaluations also audited the effectiveness of TVA's energy efficiency and demand response programs and determined that TVA has met or come close to meeting the goals for these areas. The team performed a review of the safety of gas plant and gas line operations and found that TVA has taken steps to mitigate the risk of an explosion. In addition, Evaluations completed a review of TVA's process for determining condition of assets and found that each of TVA's generation and distribution groups uses a form of system health reporting to identify the condition of their assets and the asset condition information is used for planning purposes. Finally, evaluations



also performed a review of the completion of PowerPlant's project/portfolio management (PPM) function and determined that TVA achieved some PPM capability with the new system, but considerable

opportunity for improvement exists. The Evaluations section begins on page 39 of this report.

## INVESTIGATIONS

This reporting period, our investigations resulted in one individual convicted in federal court, another indicted on state charges, and three other persons sentenced federally on various charges, such as workers' compensation fraud, false statements, and theft. Additionally, one administrative investigation reported to TVA management is conservatively estimated to save TVA \$1.1 million over the next five years. Our investigations resulted in restitution, fees, and projected savings exceeding \$5.8 million. We opened 148 investigations and closed 157. The Investigations section begins on page 43 of this report.

## STATISTICAL HIGHLIGHTS

*April 1, 2012 - September 30, 2012*

Audit Reports Issued	25
Evaluations Completed	6
Questioned Costs	\$11,707,634
Disallowed Costs	\$9,153,313
Funds Recovered	\$4,167,900
Funds to Be Put to Better Use	\$10,203,675
Funds Realized by TVA	\$1,234,675
Investigations Opened	148
Investigations Closed	157
Recoveries/Savings/Fines/Penalties	\$5,871,398
Other Monetary Loss	\$83,368
Criminal Actions	2
Administrative Actions (No. of Subjects)	11

# TVA OIG Organization

**Inspector General**

Deputy Inspector General

Assistant Inspector General,  
Investigations

Special Agent in Charge

Special Agent in Charge

Assistant Inspector General,  
Audits and Evaluations

Deputy Inspector General,  
Audits

Director, IT Audits

Director, Operational Audits

Director, Corporate Governance  
and Finance Audits

Director, Contract Audits

Director, Evaluations

Assistant Inspector General,  
Administration

Director, Organizational  
Health and Resource  
Management

Manager, Human Resources

Public Affairs Officer

Legal Counsel

Deputy Legal Counsel

## ORGANIZATION

Over our 27-year history, 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 as well as help prevent and detect fraud, waste, and abuse. Over the years, the OIG has saved TVA millions and recommended numerous program improvements. We credit our success to the efforts of our hardworking and talented staff and the professional responsiveness of TVA management to our recommendations.



### TVA OIG Office Locations

The OIG has a work philosophy of being in the right place at the right time to do the best work possible. We support that philosophy by encouraging our OIG employees to work where they can be most effective whether that is in one of our physical offices or whether it is one of our virtual offices supported by Web cameras that allow our employees to telework from

home or while traveling. We measure productivity, not where the work is done.

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

The OIG has a field office in the Edney Building in Chattanooga, Tennessee, where the Evaluations unit, members of the Corporate Governance and Finance team, and several Special Agents are located as well as staffed field offices in Nashville, Tennessee, Huntsville, Alabama, and at Watts Bar in Spring City, Tennessee.

As of September 30, 2012, the OIG had a total staff of 102. The number of personnel located at each staffed office is: Knoxville-80, Chattanooga-15, Nashville-1, Huntsville-4, and Watts Bar-2.



## ADMINISTRATION

**The Administration team** works closely with the IG, Deputy IG, and Assistant IGs to address the day-to-day operations of the OIG and to develop policies and procedures designed to drive and enhance productivity in achieving office goals. Responsibilities include personnel administration,

budget and financial management, purchasing and contract services, facilities coordination, conference planning, communications facilitation, and IT support.

## AUDITS AND EVALUATIONS

**The Audits and Evaluations group** performs a wide variety of engagements designed to promote positive change and provide assurance to TVA stakeholders. Based upon the results of these engagements, the Audits and Evaluations group makes recommendations to enhance the effectiveness and efficiency of TVA programs and operations.

The group uses an impact- and risk-based approach to develop an annual work plan. In developing the plan, the OIG considers TVA's strategic plans, major management challenges, TVA's enterprise risk management process, and other input from TVA management. This planning model also evaluates each potential engagement from the standpoint of materiality (i.e., costs or value of assets), potential impact, sensitivity (including public and congressional interest), and the likelihood it will result in recommendations for cost savings or process improvements. The result of the OIG Audits and Evaluations planning process is a

focus on those issues of highest impact and risk to TVA.

**The Audits team**, primarily based in Knoxville, generates and oversees comprehensive financial and performance audits of TVA programs and operations, providing an inclusive picture of TVA's overall fiscal and operational health. This team is made up of four departments—Contract Audits, Corporate Governance and Finance Audits, IT Audits, and Operational Audits.

- Contract Audits has lead responsibility for contract compliance and preaward



Chattanooga Office Complex

## TYPES OF AUDIT & EVALUATION ISSUES

### *Corporate Governance and Finance Audits*

- Internal Control Deficiencies
- Material Misstatements
- Legal Noncompliance
- Fraud

### *Operational Audits*

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

### *Information Technology Audits*

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

### *Evaluations*

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

### *Contract Audits*

- Inflated Proposals
- Contract Overpayments
- Inferior Performance
- Fraud

audits. In addition, this group performs reviews of TVA contracting processes and provides claims assistance as well as litigation support.

- Corporate Governance and Finance Audits has lead responsibility for oversight of TVA's (1) financial statement audit and related services performed by TVA's external auditor and (2) regulatory activities, including TVA distributors' compliance with the wholesale power contract and conducts operational reviews to assess the results as well as the economy and efficiency of TVA's financial programs.
- IT Audits has lead responsibility for audits relating to the security

of TVA's IT infrastructure, application controls, and general controls associated with TVA systems. This group also performs operational reviews of the effectiveness of IT-related functions.

- Operational Audits focuses on risk and impact-driven operational audit work. The team performs audits of operational effectiveness and efficiency, as well as TVA compliance with laws and regulations.

**The Evaluations team** seeks to ensure that program objectives and operational functions are achieved effectively and efficiently. It performs both comprehensive reviews and more limited scope

policy and program reviews. In accordance with the *Quality Standards for Inspection and Evaluation*, the objectives of the unit include providing a source of factual and analytical information, monitoring compliance, measuring performance, assessing the efficiency and effectiveness of operations, and conducting inquiries into allegations of fraud, waste, abuse, and mismanagement. Audit and evaluation issues vary depending on the objectives of the project. The graphic above shows some representative examples of issues commonly reported by each department.

## INVESTIGATIONS

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

other investigative agencies and organizations on special projects and assignments, including interagency law enforcement



task forces on terrorism, the environment, and health care. The graphic below shows the major categories of investigations.

## LEGAL

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

## MAJOR CATEGORIES OF INVESTIGATIONS

### *Contract Fraud*

Defrauding TVA through its procurement of goods and services including fraud schemes may include 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 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, a multitude of miscellaneous matters of abuse, conflict of interest, and alleged violations of code of conduct.

### *Special Projects*

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



*John Sevier Combined Cycle Plant*

# SUMMARY OF

*Representative Audits*



## SUMMARY OF

### *Representative Audits*

During this reporting period, the TVA OIG completed 25 audits, reviews, and agreed-upon procedures. Our work identified more than \$11.7 million in questioned costs, helped TVA to recover more than \$4 million, and identified more than \$10.2 million in funds to be put to better use. This work also identified numerous opportunities for TVA to improve its programs and operations. Below is a discussion of completed reviews in the following areas: (1) operational, (2) contract preaward and compliance, (3) IT, (4) corporate governance, finance, and distributors of TVA power.



#### **OPERATIONAL AUDITS**

During this semiannual reporting period, Operational Audits assessed TVA's plans to address potential craft labor shortages, identified opportunities to improve the selection process for future IT systems, and audited the use of lessons learned from construction of TVA's Lagoon Creek plant. The team also applied certain procedures to provide assurance that TVA was in compliance with the annual reporting requirement of the Green Pricing Accreditation Program.

#### **Craft Labor Staffing**

TVA's craft labor workforce is comprised of annual employees and contractor labor. Craft labor includes, but is not limited to, laborers, boilermakers, bricklayers, machinists, electrical workers, ironworkers, equipment operators, painters, steamfitters, and

roofers. Annual craft employees are salary employees responsible for performing operations and maintenance as well as modifications. TVA uses two types of contractor craft labor. Staff augmented craft are under the supervision of a TVA employee and may be brought in to assist with operations and maintenance or modifications if the skill level or the amount of work exceeds the ability or number of annual craft employees. Managed task craft are managed by a supplier who is providing services to TVA. This type of craft is utilized for some maintenance and modification work and all construction projects at TVA. Both types of craft are necessary to help TVA achieve its future long-term goals as contained in its Integrated Resource Plan (IRP).

We assessed TVA's plans to mitigate the risks and potential

effects of craft labor shortages and evaluate TVA's performance to date. Our audit scope included the mitigation plans as defined in TVA's Enterprise Risk Management document dated July 13, 2011, and additional mitigations for contractor craft labor within the Generation Construction (GC), Coal Operations, Gas Operations, Nuclear Construction, and Nuclear Power Group organizations. TVA mitigation actions for addressing craft labor risk included (1) scheduling nuclear and fossil outages that enable a steady stream of work to the already existing labor workforce; (2) craft training programs; (3) benchmarking with the Utility, Building, and Construction Industry Employer Association for additional mitigation actions; and (4) increasing compensation and benefits marginally above market levels and/or utilizing other crafts with the skill sets necessary for the



Power Service Shop

job. We focused on TVA’s plans with regard to the contractor craft workforce.

Based on our review of TVA’s plans and actions to mitigate the risk and potential effects of craft labor shortages, we determined plans and actions were inadequate to aid in the achievement of future goals as identified in TVA’s IRP. Specifically, we determined risk mitigation actions related to competition needs improvement and deficiencies existed in risk planning and mitigation related to the shrinking labor pool. In addition, we noted improvements

could be made to the process for assessing and monitoring risk related to craft labor.

TVA has passed the management of craft labor risk to contractors, unions, and other organizations. In our opinion, TVA, as part of its economic development mission, has an obligation to participate in efforts to replenish shrinking craft labor pools. In addition, to achieve long-term goals as identified in TVA’s IRP, it is necessary to develop actions for attracting and retaining craft labor and/or look for alternative solutions. TVA management generally agreed with

our findings and recommendations and is taking actions to address these issues.

### **New Expense Management Application Implementation**

According to project documentation, in fiscal year (FY) 2010, TVA’s CEO tasked Financial Services (FS) with replacing all TVA-issued purchasing cards with a single corporate credit card solution to maximize TVA’s credit card rebates. FS personnel stated the intent was to reduce the number of outstanding cards and decrease risk exposure.

The project plan stated FS and IT formed a project team to implement the new solution. The project team proposed a new expense management system be implemented to replace TVA's three legacy systems. The OIG assessed whether TVA performed adequate analysis for its decision to implement the system. Our audit scope included the analysis performed to make the decision to implement the system as of May 31, 2011, as well as documentation supporting those decisions.

We concluded, based on project documentation and discussions with project management personnel, adequate analysis was not performed in the decision to implement the new expense management system. Specifically, the decision was made without adherence to TVA's project management policies, resulting in time delays within the project, inadequate budget planning, duplication of efforts including potential waste of resources and project management inefficiencies. Even though steps were taken to (1) define a business need, (2) derive estimates for cost and time implementation and identify ownership, (3) evaluate alternative system solutions, (4) obtain approvals and define a budget, and (5) assess current and future business conditions, these efforts were made after the new system was chosen. Without

understanding the reasons and parameters for implementing a new expense management system, the project team's efforts to follow the process as outlined in the project management policies were wasted and resulted in schedule delays as well as project management team frustrations. TVA management generally agreed with our findings and recommendations and is taking actions to address these issues.

### **Lessons Learned During the Construction of Lagoon Creek Combined-Cycle Plant**

TVA utilizes a variety of generation sources to provide power. Among these are TVA's natural gas/oil-fired facilities, which include combustion turbine plants such as the LCC and John Sevier Combined Cycle (JCC) plants. GC maintains a database of lessons learned from projects. Lessons learned involve collecting information on events and incidents that either positively or negatively impacted the conduct or performance of a project. Lessons learned can be used for future projects to prevent repeated issues and improve subsequent performance, such as other projects similar to LCC and JCC.

Because of the potential usefulness of a sound lessons learned process in completing generation construction projects effectively and efficiently, the OIG reviewed the lessons learned process used during the construction of

LCC. The audit objective was to identify lessons learned and how these lessons are being or can be applied to subsequent construction projects.

We determined GC has a process in place for lessons learned management; and, during the audit, TVA issued the Project Lessons Learned Management policy, which provides beneficial guidance on the roles and responsibilities of project teams in regard to managing lessons learned. However, we identified some potential areas of improvement in the GC process. Specifically, we determined (1) there is no documented criterion or review process for determining what is or is not a lesson learned, (2) the process for documenting lessons learned could be improved, and (3) there are no mechanisms to reasonably assure project teams are reviewing lessons learned from previous projects or relevant lessons learned are incorporated into the project's scope. TVA management generally agreed with our findings and recommendations and is taking actions to address these issues.

### **Agreed-Upon Procedures for CRS Green-e Energy Program FY 2011**

TVA's Green Power Switch Program produces electric power from renewable resources such as solar, wind, and methane gas, and adds such sources to TVA's power mix.



Solar Panels

Both solar and wind power are produced in sufficient quantities to qualify for accreditation standards administered by the CRS. The OIG completed agreed-upon procedures to assist the CRS in determining TVA's compliance with the annual reporting requirements of the CRS Green Pricing Accreditation Program for the year ended December 31, 2011. These procedures included steps to verify that the renewable energy supply was sufficient to meet sales, products met the Green-e criteria and stated product content and marketing as well as product information was accurate and communicated to customers. The results of the procedures

verified that TVA's Green Power sales were based on electricity generated or acquired from eligible renewable sources and otherwise met the requirements. CRS was provided with results of the applied procedures.

## CONTRACT AUDITS

### Preaward Contract Reviews

To support TVA management in negotiating procurement actions, we completed four preaward reviews of cost proposals submitted by companies proposing to provide (1) engineering services for work at TVA's Bellefonte Nuclear Plant Unit 1, and (2) project controls support for TVA's GC projects. Our audits identified \$10.2 million of

potential savings opportunities for TVA to negotiate. The savings opportunities were primarily related to over-stated indirect cost recovery rates.

### Contract Compliance Reviews

During this semiannual period, we completed five compliance audits of contracts with expenditures totaling \$458 million and identified potential overbillings of \$8.1 million. Highlights of our completed compliance audits follow.

- We audited \$15.4 million in costs billed to TVA by a contractor for providing hydroblasting services at TVA locations. In summary, we determined the contractor had overbilled TVA \$4,145,909, including:
  - ❖ \$2,482,444 in unsupported costs related to (1) missing cost details, (2) unclassified costs, (3) subcontractor costs, (4) labor costs, and (5) equipment and materials.
  - ❖ \$1,113,702 in costs for hydroblasting services because the contractor billed excessive hours for equipment operating time and hourly rates for equipment and employees not provided for in the contract.

- ❖ \$393,848 of ineligible costs for (1) equipment and materials; (2) labor costs; (3) mobilization/demobilization; (4) travel, meals, and per diem; and (5) fuel surcharges.
- ❖ \$135,941 due to the use of incorrect billing rates.
- ❖ \$41,837 in duplicate billings.
- ❖ Credit for \$21,863 in discounts that had been provided by the contractor.

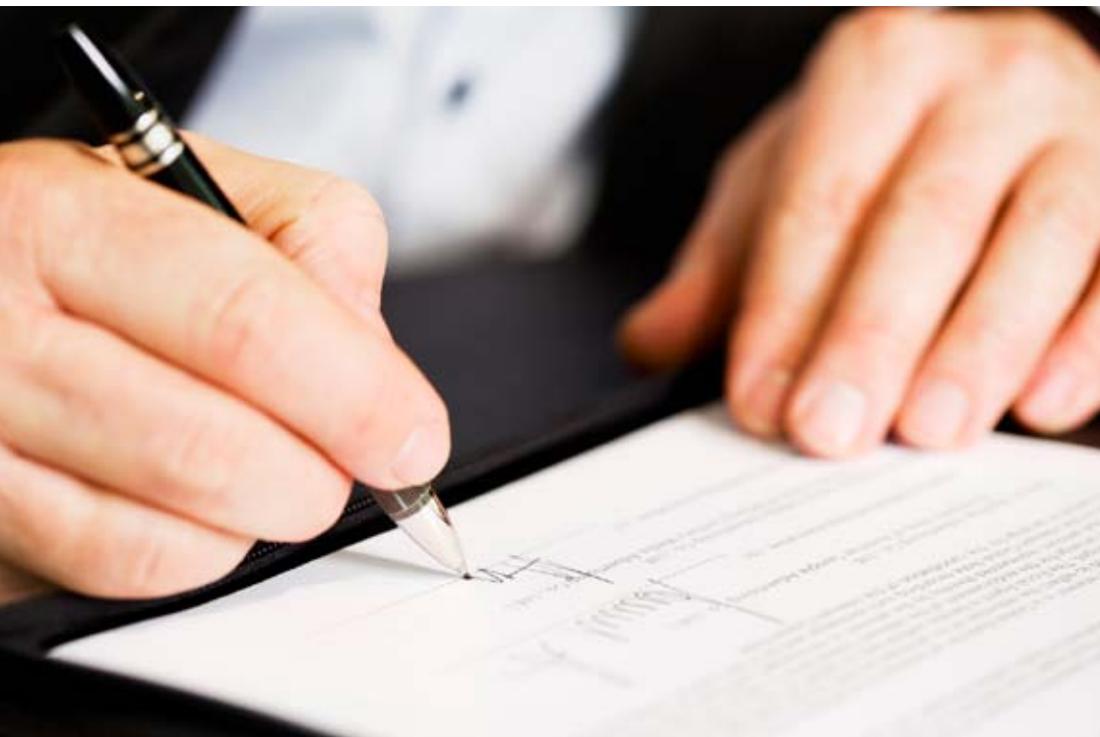
We also noted numerous instances where the contractor did not pay its employees in accordance with the Project Maintenance and Modification Agreement (PMMA) labor provisions in the contract. In addition, the contractor did not submit “Weekly Statement of Payroll Compliance” reports to

TVA’s Contract Officer as required by the PMMA.

- We performed an interim audit of \$397 million in costs billed to TVA by a contractor for providing engineering, procurement, and construction services in support of the completion of TVA’s Watts Bar Unit 2. In summary, we determined the contractor overbilled TVA an estimated \$1,449,752, including:
  - ❖ \$903,698 in labor and related costs, which included (1) \$778,617 in ineligible home office labor costs, (2) \$75,309 in excess payroll additive costs, (3) \$34,098 in excessive labor costs, and (4) \$15,674 in fees for staff augmentation services. In addition, we found the contractor did

not invoice costs for the staff augmentation services separately as required by the contract, and improperly included these costs in the contractor’s annual performance fee base.

- ❖ \$546,054 in other ineligible or unsupported direct costs, which included (1) \$534,835 for relocation, temporary assignment, and travel costs; (2) \$5,795 for other nonlabor direct costs; and (3) \$5,424 for fees on subcontractor costs.
- ❖ We audited \$35.7 million in costs billed to TVA under two contracts by a contractor for providing (1) assistance in the offsite fly ash utilization project at Johnsonville Fossil Plant, (2) ash pond management services at Johnsonville Fossil Plant, and (3) additional work described in separate Task Agreements executed by TVA and the contractor. In summary, we determined the contractor billed TVA (1) \$1,479,630 for work that was not authorized under the contracts and (2) \$186,955 in excessive and unsupported costs.
- ❖ \$1,479,630 was billed for work not included in the contracts’ scopes and not authorized by separate Task Agreements. Additionally,





the cost was billed using rates that were (1) not provided for by the contracts and (2) higher than rates included in another contract TVA has with the contractor. As a result, the unauthorized cost was inflated by \$44,008.

- ❖ \$186,955 was overbilled due to:
  - » \$170,993 in excessive costs that were billed on three Task Agreements.
  - » \$13,866 in unsupported costs.
  - » \$2,096 in excessive costs billed due to an inflated tonnage rate.

➤ We audited \$10.4 million in costs billed for nuclear

Authorized Inspection Agency services under three contracts. In summary, we determined the contractor had overbilled TVA an estimated \$679,370, including:

- ❖ \$524,623 of ineligible labor costs including: (1) \$517,358 in excessive labor costs because the contractor did not bill actual employee wages, associated labor burden, and fee as specified by the contracts; and (2) \$7,265 of ineligible labor costs billed for corporate personnel.
- ❖ \$147,358 in temporary living allowance costs for which the contractor could not provide the contracts' required

eligibility certifications and other related documentation.

- ❖ An estimated \$7,389 in unsupported or ineligible travel and miscellaneous costs.

➤ We audited a contractor's billed and estimated remaining material escalation costs for components provided in support of the completion of the Watts Bar Unit 2 Nuclear Steam Supply System. In summary, we determined the contractor overbilled a net \$26,917 in material escalation costs and overestimated the remaining material escalation costs by \$137,408. In addition, we identified compensation terms in the contract that needed to be clarified to reduce the potential for billing discrepancies.

## IT AUDITS

During this semiannual period, we completed seven audits in the IT environment on (1) implementation controls for two applications; (2) controls over TVA PII held by two private third parties; (3) IT general controls for the transmission control center and its backup and a substation; and (4) the OIG's biennial assessment of TVA's controls to protect PII.

## Implementation Controls Were Effective

Pre-implementation/ implementation audits are

performed to (1) evaluate and test the proposed control environment in new systems and (2) determine if applicable policies and procedures were followed during system development. During this reporting period, the OIG completed a pre-implementation audit for TVA's general ledger upgrade and an audit of the phase one implementation of a new work process management application. We found implementation plans and processes were generally adequate regarding application access controls, system security, system testing, data verification, and the general controls included in our audit scope.

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

TVA contracts with vendors to provide certain employment-related services. Due to the nature of the contracted services, TVA must provide these vendors with information which is classified either as PII or protected health information (PHI). During this reporting period, we completed audits of the vendor who provided travel services and another vendor who provided flexible spending account management services. We audited the (1) security controls for protecting TVA employee data during transmission and processing and (2) adequacy

of and compliance with TVA contract terms for security and data protection. In summary, we determined both vendors (1) had appropriate controls in place to effectively protect PII/PHI during transmission and processing and (2) complied with the security terms in the TVA contract. However, we identified control improvements for each vendor and TVA that, if implemented, would strengthen data protection controls. TVA management agreed with our findings and recommendations and is implementing the improvements.

### **IT General Controls for Transmission Facilities Could Be Improved**

TVA has certain generating and transmission facilities that have been identified as critical assets using the criteria provided by the North American Electric Reliability Corporation. As such, these assets are subject to the Critical Infrastructure Protection program. We performed an audit of the transmission control facility and its backup, which are included in the Critical Infrastructure Protection program, as well as an audit of a substation, to assess the adequacy of general, logical, and physical controls. We found weaknesses in each control area tested during the audit. Unauthorized access originating from non-network resources, such as USB memory products and leveraging the security weaknesses, could allow a malicious attacker to cause





unplanned outages and equipment damage. TVA management agreed with our findings and recommendations and is implementing improvements.

### **Privacy Program Effectiveness Only Marginally Improved**

PII is defined by the OMB in Memorandum 07-16 and refers to information which can be used alone to distinguish or trace an individual's identity. This includes an individual's name, social security number, biometric records, or when combined with other personal/identifying information, is linked or linkable to a specific individual,

such as date and place of birth or mother's maiden name. The OIG conducted this audit as an independent review of TVA's use of PII in accordance with privacy provisions of the Consolidated Appropriations Act of 2005. This is our third review since the requirement was enacted. Since the OIG's previous review, TVA has improved its privacy standard policies and procedures and increased the use of encryption for storage of data containing PII. However, TVA's progress in its privacy program development has not kept pace with the challenges of safeguarding PII in today's increasingly complex

and accessible environment. Specifically, we found (1) the privacy program controls were not effective to protect PII; (2) controls over the reporting of privacy breaches could be improved; and (3) other control weaknesses were present, which had been reported in previous OIG audits. TVA management agreed with our findings and recommendations.

### **CORPORATE GOVERNANCE AND FINANCE AUDITS**

During this semiannual period, Corporate Governance and Finance Audits completed audits

of (1) TVA's FTP, (2) TVA's DLC, and (3) compliance with key terms in contracts between TVA and two distributors. In addition, the team provided oversight of and assistance to TVA's external auditor.

### **TVA's Financial Trading Program**

The TVA Board of Directors (TVA Board) approved an FTP Pilot in September 2003 to hedge or otherwise limit economic risk associated with the price of commodities currently recovered in TVA's Fuel Cost Adjustment (FCA). At that time, the maximum Value at Risk<sup>3</sup> (VaR) for TVA's portfolio was not to exceed \$5 million on an annual basis without the approval of the TVA Board. On May 17, 2005, the TVA Board approved a request to expand and fully implement the FTP. The program currently has an aggregate transaction limit of \$130 million (based on one-day VaR), of which \$90 million is allocated to natural gas hedging.

From FY 2006 through the first quarter of FY 2012, TVA's natural gas-related costs have been \$3.14 billion; the FTP hedging program contributed another \$840 million for total costs of \$3.98 billion. This contribution reflects the difference between the locked-in price of natural gas and the market price of natural gas at the time of delivery. TVA management stated the \$840 million is a result of the

dramatic drop in the price of natural gas over the period. In addition, TVA, as of December 31, 2011, expects the hedging program to add \$421 million to natural gas costs of \$3.7 billion for the period January 2012 to December 2017 for total natural gas costs of \$4.1 billion. Although this situation could reverse in an environment with rising gas prices, it illustrates the significant potential impact, positive and negative, the FTP can have on TVA's FCA while attempting to reduce the overall volatility of fuel cost for generating electricity.

Due to the significant size of the natural gas hedging program, compared to other hedged commodities, we generally limited our audit scope to the natural gas hedging program. The objectives of our audit were to evaluate: (1) management oversight and the design of controls to mitigate risk; (2) program objectives and related performance measures; (3) whether TVA is meeting defined performance objectives; and (4) the FTP impact to TVA's overall risk tolerance.

Our audit determined the design of TVA's FTP control structure was appropriate. However, we identified several areas where management oversight should be improved to validate the usefulness and effectiveness of the program

as well as ensure TVA stakeholders' understanding of the program. Specifically:

- TVA has not conducted a comprehensive cost benefit analysis to determine whether the benefits derived from the FTP are greater than the inherent risks of the program;
- TVA does not currently measure the performance of the FTP against defined program objectives; and
- TVA's communications with its customers did not sufficiently convey the FTP's impact on rates.

Based on the findings noted above, we made recommendations to TVA management to improve the program. TVA management generally agreed with our findings and recommendations and is taking corrective actions to address these issues.

### **TVA's Direct Load Control Program**

The DLC program was developed by TVA in the 1970s as a means to shift load from on-peak/high-priced periods to off-peak/low-priced periods. Shifting of the load was to be accomplished through the installation of radio-controlled switches to cycle air conditioners and water heaters for either reliability or economic purposes.

<sup>3</sup> A calculation representing the amount of money TVA could lose over a certain period of time with a certain level of confidence.

Participating distributors install the switches (which are provided by TVA) on end users' equipment, and the distributors receive monthly credits on their wholesale bills for each switch. Presently, there are 12 distributors participating in the DLC program. Credits provided to these distributors during 2011 ranged from \$5,909 to more than \$1 million for a total cost to TVA of \$2,365,819.

We performed an audit of TVA's DLC program to address concerns regarding the benefits of the program. The objectives of our audit were to determine the effectiveness of the program and TVA's oversight of the program.

We determined the DLC program is not operating effectively, and TVA is not employing two key oversight mechanisms afforded by the DLC contract.

➤ The program is not operating effectively because much of the DLC program equipment is outdated and in disrepair, and the program cost is substantially higher than the savings TVA achieves. The computer system used to regulate the program is more than 20 years old, and there are limited resources available to provide upkeep and maintenance on its software and hardware. In addition, the equipment (transmitters and repeaters) required to operate the system is about 30 years

old and prone to operational problems. TVA personnel estimated the program had a net cost of about \$2.2 million to TVA in FY 2007.

➤ TVA is not using two key contractual oversight mechanisms for verifying the program is operating as intended and distributor reports to TVA are accurate. The first oversight mechanism gives TVA the right to perform an annual audit to determine the operational condition of installed switches. According to program managers, the only review of the installed switches performed under this mechanism occurred in 2006. The second oversight mechanism requires distributors to supply TVA with an annual listing of participant information. No distributor has provided participant information since the current program manager took over the position in 2010. However, distributors have continued to receive the credits on their wholesale power bill, as TVA has not enforced these contract provisions.

In summary, the cost of the DLC program is continuing to grow although the benefits derived from the program are limited. Billing credits provided by TVA were \$2.36 million in 2011, which is \$160,000 more than TVA reported during 2007. Based on the increased level of credits TVA is

issuing and the costs necessary to operate the equipment effectively, it does not appear the program can provide a positive return for TVA.

Based on the findings noted above, we made recommendations to TVA management to improve the program. TVA management generally agreed with our findings and recommendations and is taking corrective actions to address these issues.

### **Distributor Audits**

TVA sells power under the contracts it holds with 155 distributors – municipalities and cooperatives. Distributors resell TVA power to consumers across the Tennessee Valley. We audited compliance with power contracts TVA held with two distributors. Key contract provisions in the audit included: (1) proper reporting of electric sales, (2) nondiscrimination in providing power, and (3) use of electric revenue for approved purposes. The following describes issues noted in our audits.

#### **➤ Underpayment to TVA**

One distributor did not report 331,038 kilowatts of demand to TVA for a commercial customer in January 2010. The wholesale effect of this error was an underpayment to TVA of \$3,601,693. The distributor agreed with our finding and was billed for the error on its June 2012 power invoice from TVA which was subsequently paid.

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

One distributor used electric department funds for nonelectric purposes that were inconsistent with provisions in the contract. This distributor deposited \$76,500 to an economic development account shared by the other three municipal utility service departments in FY 2009 from which disbursements are made for economic development. TVA management agreed this practice is not expressly allowed under the power contract and they plan to recommend the TVA Board formally approve a Use of Revenues policy, which would expressly approve distributors' use of electric system revenues for economic development under certain circumstances.

➤ **Misclassifications**

We noted instances where customers were not classified properly and similar customers were not classified the same at

both distributors. The impact of these issues where we had adequate information to estimate was not significant to TVA or the distributor.

➤ **Other Contract Requirements**

The distributors did not comply with certain other contract requirements and/or their own policies requiring: (1) evaluation of customers for a demand meter, (2) entering of contract demand values in the billing system, (3) certifications for credits provided to customers, and (4) contracts with customers whose demand exceeded the threshold requirement for customer contracts.

➤ **Internal Controls**

We noted opportunities to help the distributors improve internal control over customer adjustments, accuracy of contract demand billing data, and reporting to TVA. TVA management and the distributors agreed with our

findings, with the exception of the finding related to the use of electric funds for purposes not allowed under the power contract. TVA stated it plans to recommend formal approval by the TVA Board of a use of revenues policy allowing the use we noted and the distributor agreed with TVA's planned action. Therefore, neither TVA nor the distributor intends to halt the identified use of electric funds, unless the TVA Board does not approve the proposed policy change.

# SUMMARY OF

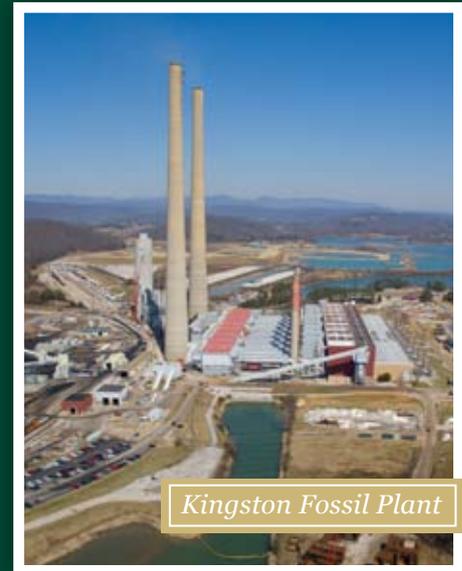
*Representative Evaluations*



## SUMMARY OF

### Representative Evaluations

During this semiannual period, Evaluations completed five<sup>4</sup> reviews, including a review of the completion of PowerPlant's PPM function. The team also completed a review of non-time-critical Kingston ash recovery project activities, as part of the OIG's ongoing commitment to provide oversight of the Kingston ash spill cleanup. In addition, the team reviewed TVA's process for determining the condition of assets and the effectiveness of TVA's energy efficiency and demand response programs as well as performed a review of safety of gas plant and gas line operations. More information on each of the reviews can be found below.



#### Completion of PowerPlant's Project/Portfolio Management Function

Because of the importance of successful capital project management, and in light of recent capital project cost overruns and schedule delays, we initiated a review of TVA's capital project management. The objective of our work was to determine whether the PPM function of PowerPlant meets the needs of the strategic business units (SBU).

PowerPlant replaced TVA's Project Justification System on March 7, 2011, at a cost of about \$7 million. PowerPlant was implemented to replace the assets module within the Enterprise Financial Management System, while also providing the functionality to centralize PPM. TVA achieved some PPM capability with the

new system, but considerable opportunity for improvement exists. According to several portfolio managers, because PowerPlant does not provide the tools for effectively managing projects, they continue to use Excel spreadsheets or other project management software to manage their projects. As a result of our review, we identified (1) the PowerPlant PPM tools do not currently meet all needs identified by the SBUs, (2) users feel they have not been adequately trained on some functions of the system, and (3) communication of defects that have been resolved would benefit users.

We recommended the Vice President and Controller (1) consider implementing additional project management functionality available in the

PowerPlant system or purchasing another system to provide a PPM tool to more efficiently and effectively manage TVA's capital projects, (2) complete additional PowerPlant training as planned, and (3) develop a strategy for communicating system changes, upgrades, and modifications.

#### Non-Time-Critical Kingston Ash Recovery Project Activities

On Monday, December 22, 2008, the ash containment area at the Kingston Fossil Plant failed. Approximately 5.4 million cubic yards of fly ash and bottom ash were released onto land and adjacent waterways. As part of the OIG's ongoing commitment to provide oversight of the Kingston ash spill cleanup, we reviewed TVA's non-time-critical Kingston Ash Recovery Project activities.

<sup>4</sup> Inspection 2010-13088 Status Review of the Watts Bar Unit 2 Construction Project Schedule and Budget was completed during this semiannual period; however, due to the significance of the review it was included in the previous semiannual report.

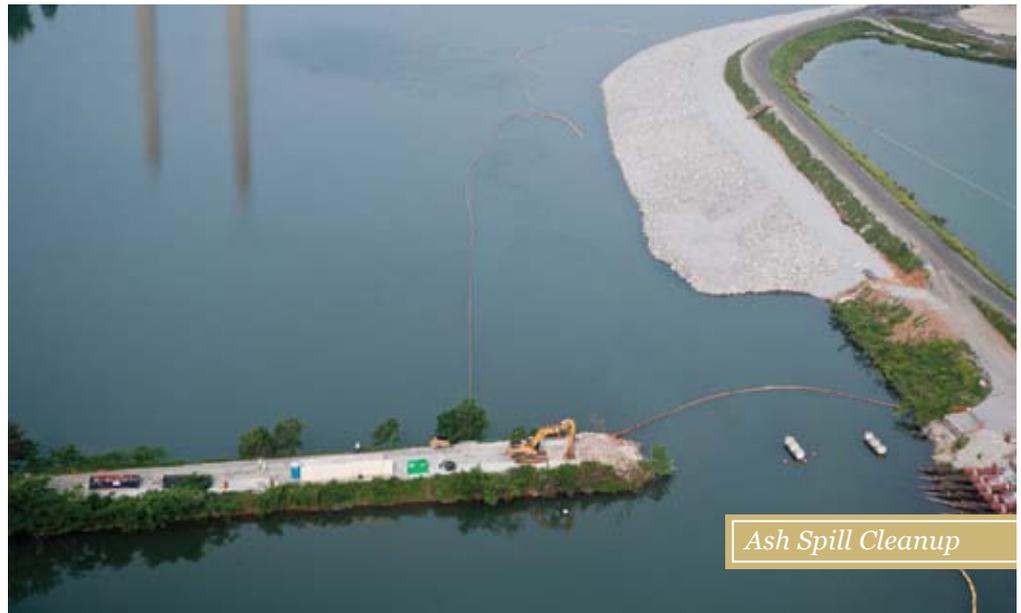
The objectives of this review were to determine (1) the overall status of the non-time-critical phase of the Kingston Ash Recovery Project and (2) if TVA is meeting the schedule for non-time-critical activities. We found TVA made significant progress in the non-time-critical phase of the Kingston Ash Recovery Project. Specifically, TVA recently completed the following activities: removed ash from the north embayment, buttressed Dike C, transferred a portion of a nearby ball field to the Kingston Fossil Plant, and replaced the skimmer wall in the intake channel. In addition, TVA has ongoing non-time-critical activities that include excavating ash from the middle embayment, constructing the perimeter wall stabilization around the on-site disposal areas, disposing of ash on-site, studying the effects of residual ash on the river system, and creating a master plan for park and recreation areas.

While TVA is making progress in the completion of non-time-critical activities, we found that five of nine activities reviewed did not meet scheduled completion dates. If late completion of activities continues, there is an increased risk the overall project completion date of 2015, disclosed in the company's financial statements, could be delayed.

We recommended TVA's Senior Vice President, GC, evaluate the current schedule to determine if the identified delays have caused overall schedule slippage. If it

is determined that the overall schedule will be delayed beyond the date disclosed in the footnotes of TVA's financial statements, then the disclosure should be updated. TVA management agreed with our recommendation and has taken actions to address it.

uses this information in planning. The scope of this review did not include assessing the condition of TVA assets. This review included the Nuclear Power Group, Fossil Power Group, Energy Delivery, and River Operations (RO) groups.



### Survey of TVA's Process for Determining Condition of Assets

In 2010, TVA conducted a benchmark study which found as of 2008 TVA had an aging generating fleet that was on average 36 years old. This includes fossil units, which have an average age of 47 years. Of the ten utilities that participated in the benchmark, TVA fell into the bottom quartile with respect to the age of its assets. With the age of TVA generating assets, the need to understand the condition of these assets and use this information to effectively plan is crucial to TVA. As a result, we initiated a review to determine how TVA assesses the condition of electric assets and

We found the condition of assets is identified through system, program, and component health assessments. While all the TVA organizations we reviewed use health assessments, the process varies among the organizations. We also found TVA uses the condition of assets information for planning purposes. In addition, all of the organizations we reviewed use asset condition information to identify corrective actions when necessary. However, the RO's System and Component Health Program process does not require any actions for systems and components with poor ratings. The condition of assets information is also used by the organizations to

develop and prioritize projects for business planning purposes and system planning for future costs. In addition, TVA has instituted a Capital Productivity Initiative to improve management of capital and operations and maintenance (O&M) projects. As part of the new initiative, projects will be reviewed by a Project Review Board and condition of assets information could be a factor for consideration in their project reviews.

We recommended the Vice President of Generation Engineering consider revising RO's System and Component Health Program process to require an action when a health assessment has resulted in a poor rating, and Director of Capital Productivity and Economic Analysis consider requiring condition of assets information be included as an evaluation factor for projects where the condition is relevant.

### **Energy Efficiency and Demand Response**

Energy efficiency and demand reduction initiatives are important components of TVA's plan to meet future power needs in its service territory. The objectives of this review were to determine how TVA measures the effectiveness of its energy efficiency and demand response programs and if program goals were being met.

Energy efficiency programs are designed to encourage residential and commercial users in TVA's

service area to save energy. Demand response programs reduce demand for energy at critical high-use/high-price times through more efficient use of current supply resources which offsets the need for investment in peaking resources. In 2000, TVA began the Green Power Switch program, which is described as a program where consumers can pay \$4 a month, and TVA will add 150 kilowatt hours of electricity generated by a renewable resource.

We determined TVA (1) contracted with an independent consultant to provide evaluation, measurement, and verification services to help determine the effectiveness of its energy efficiency and demand reduction programs and (2) achieved its planned energy efficiency and demand reduction for 2011, and only missed its planned demand reduction in 2009 and 2010 by 2 megawatts and 16 megawatts, respectively. The Green Power Switch program planned a large increase in sales (14 percent) over the last three years through a series of yearly goals. The program came close to achieving its goals for 2009 and 2010; however, it fell significantly short of its goal in 2011. The OIG made no recommendations related to this review.

### **Safety of Gas Plant and Gas Line Operations**

In light of recent gas-related explosions in the utility industry,

we conducted a review of TVA's safety of gas line and gas plant operations. The objective of our review was to determine if TVA has taken appropriate steps to identify and mitigate risks associated with the operation of gas plants and lines. The vast majority of gas-related explosions were gas-line related. According to TVA personnel, TVA is not responsible for gas until it reaches the reducing stations on TVA property. This significantly decreases TVA's risk of a gas-related incident. We did identify explosions in Middletown, Connecticut, and Garner, North Carolina, which occurred at gas plants due to improper commissioning. In both instances, fuel gas, instead of compressed air, was used to clean or purge gas pipes of debris, air, or other substances. TVA has taken steps to mitigate this risk by using compressed air instead of gas to clean or purge gas pipes.

TVA also has completed a draft of the Natural Gas Piping System Management manual. This manual provides the primary standards and methodology required for the commissioning, maintenance, and integrity management of natural gas piping systems found at TVA Fossil Power Group properties. The Natural Gas Piping System Management manual also includes emergency response information in the event a natural gas emergency occurs. The OIG made no recommendations related to this review.

# SUMMARY OF

*Representative Investigations*



## SUMMARY OF

### *Representative Investigations*

This reporting period, our investigations resulted in one individual convicted in federal court, another indicted on state charges, and three other persons sentenced federally on various charges, such as workers' compensation fraud, false statements, and theft. Additionally, one administrative investigation reported to TVA management is conservatively estimated to save TVA \$1.1 million over the next five years. Our investigations resulted in restitution, fees, and projected savings exceeding \$5.8 million. We opened 147 investigations and closed 157. Highlights of our accomplishments follow.



#### **CRIMINAL RESULTS**

##### **Former Local Utility President Convicted**

As a result of our investigation, a former president of a Middle Tennessee utility company pled guilty in federal court on May 25, 2012, to four counts of an indictment charging him with honest services wire and mail fraud. The indictment alleged he personally accepted "gifts and payments" from two contractors (a father and son who owned separate consulting businesses and who remain under indictment) in exchange for their receiving contract assignments with the utility. The utility requested our investigation after terminating the president and cooperated fully with our inquiry. The subject awaits sentencing.

##### **Former Employee Sentenced on Charges Including TVA VISA Misuse Constituting Theft**

During February 2012, a former TVA Police (TVAP) administrative employee pled guilty to a two-count information charging her with (1) bankruptcy fraud and (2) using a TVA VISA card to make personal purchases in excess of \$20,000. The former TVAP employee was sentenced August 21, 2012, to four months of imprisonment, six months of home detention, three years of supervised release, and full restitution to TVA totaling \$21,465.

Our investigation led to the discovery of additional allegedly fraudulent activity not directly related to the subject matter of our investigation, and we have referred

that information to the appropriate local agencies.

This former employee and the following two convicted individuals carry security restrictions should they attempt to seek future TVA employment.

##### **Former Contractor Employee Prosecuted for Theft and Misuse of TVA Gas Card**

As a result of our investigation, in December 2011, the former contractor pled guilty to a one-count indictment in federal court for his unauthorized use of a TVA-issued gas card. Our inquiry, which included reviewing convenience store security tapes, identified the gas-card user as a TVA hydro contractor employee. Store videos showed the individual pumping

fuel into a large container and into private vehicles. On April 2, 2012, he was sentenced to six months of home detention and two years of probation, and he was ordered to reimburse TVA \$7,206 for the fraudulent charges he incurred.

### **Former TVA Employee Sentenced for Workers' Compensation Fraud**

Our investigation revealed a former fossil plant employee received total disability benefits under the Office of Workers' Compensation Programs (OWCP)

while actively employed at a Chattanooga business and at the home of the business owner. A September 2011 one-count federal indictment charged her with knowingly defrauding the program by working while claiming she was unemployed. She subsequently pled guilty to the charge. On May 10, 2012, she was ordered to pay TVA \$1,064 restitution and sentenced to two years of probation and 120 hours of community service. The U.S. Department of Labor estimates TVA avoided more than \$300,000 in

future liability for OWCP payments which she will no longer receive due to her conviction.

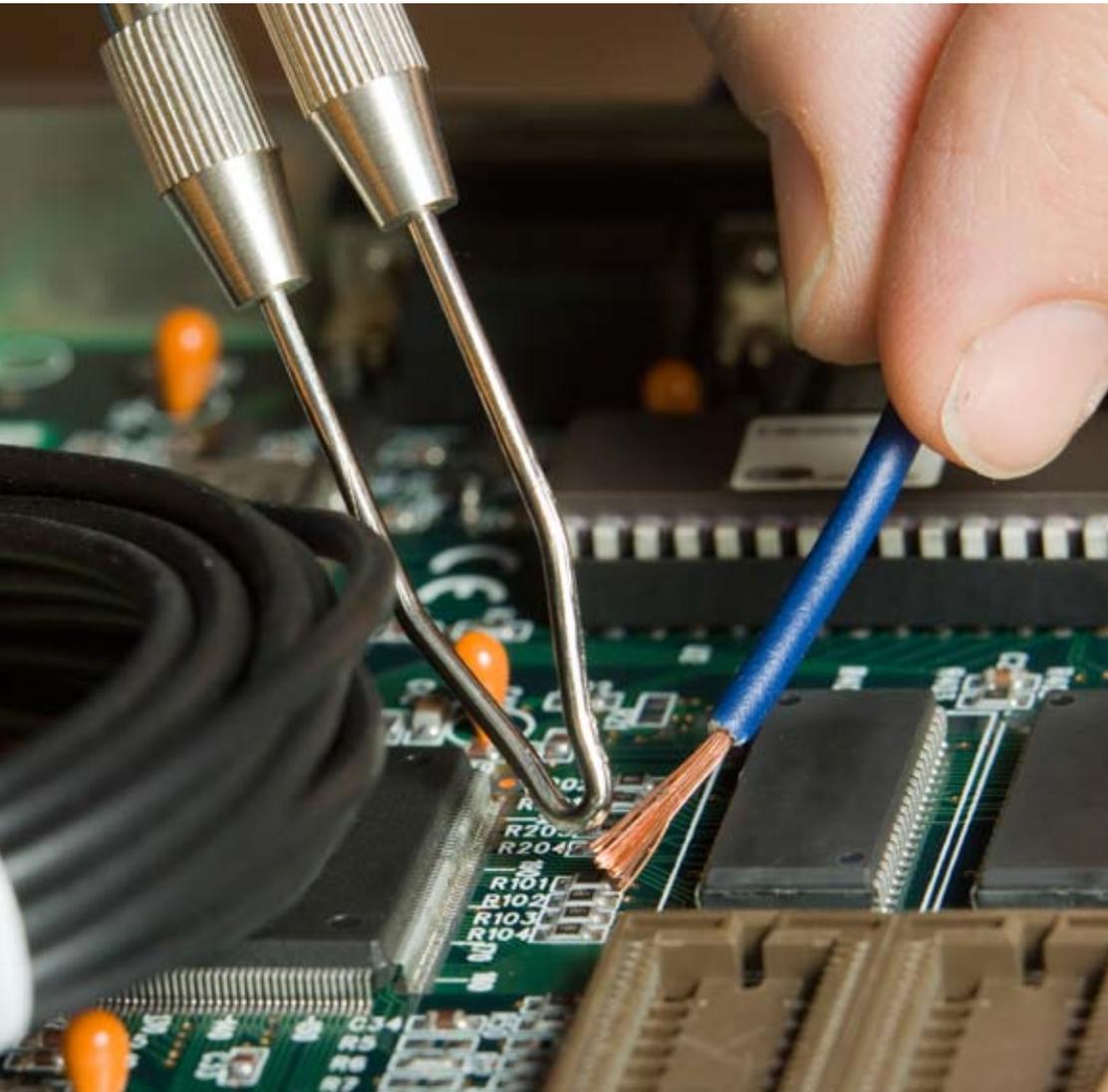
### **Contractor Indicted on State Felony Charges**

The OIG investigated allegations a Power Service Shops contractor electrician stole TVA property and falsified wage and quality control documentation. On August 2, 2012, a Colbert County, Alabama, grand jury indicted the individual charging the following three felony counts: (1) Theft of Property in the First Degree (two welding devices valued in excess of \$2,500 were stolen); (2) Theft of Property by Deception in the Second Degree (timesheets garnering the individual \$2,400 wages to which she was not entitled were falsified); and (3) Forgery in the Second Degree (fraudulent Supply Chain quality control documents were supplied). Prosecution is pending.

### **CIVIL RESULTS**

#### **Medical Group Will Pay \$4.36 Million to Resolve Federal and State Health-care Fraud Investigation**

As part of a health-care task force, we investigated an East Tennessee medical group's billing practices based on a whistleblower (qui tam) complaint. The group owned and operated six dialysis clinics. An investigation revealed that, for at least five years, the group submitted a multitude of fraudulent claims to Medicare and TennCare, as well as to TVA's





health care benefits plan, by claiming inappropriately elevated medical procedure codes to obtain reimbursement exceeding the amount allowed for the item or service actually rendered (upcoding).

Under the Civil False Claims Act, on April 27, 2012, a settlement was finalized with the medical group, which agreed to pay a total of \$4.36 million to the federal government—\$7,760 was

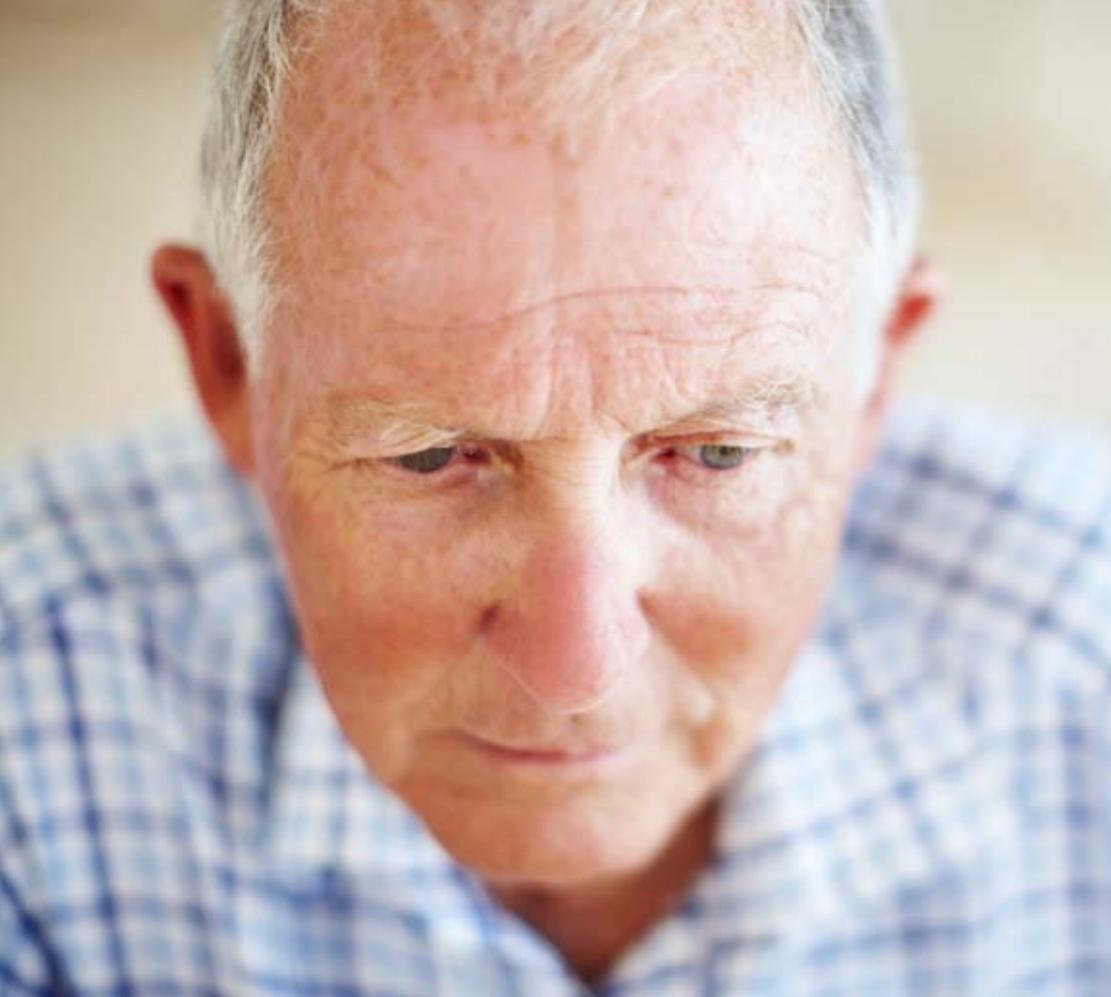
returned to TVA for reimbursement and penalties—and the State of Tennessee, to settle the case. Of critical importance, the group and its owner also entered into a five-year Integrity Agreement with the U.S. Department of Health and Human Services (HHS) OIG to ensure future compliance with federal health-care benefit program requirements. The task force consisted of representatives from TVA OIG, HHS OIG, the FBI, the U.S. Attorney's Office for the

Eastern District of Tennessee, and the Tennessee Bureau of Investigation.

## **ADMINISTRATIVE RESULTS**

### **\$1.1 Million Projected Savings to TVA**

Data mining identified an area of concern regarding the trades-and-labor benefit of meal payment during unscheduled overtime. Trades-and-labor personnel working scheduled overtime



the employee resigned in lieu of termination, and her record is marked with a security restriction should she seek reemployment at TVA. Prosecution for false statements was declined.

Subsequently, TVA management asked us to determine how the employee's hiring process was executed. We found TVA management ignored recommendations by TVA Personnel Security to withhold a hiring decision until a background investigation was completed to resolve issues that were already apparent. Our final recommendation to TVA management was to follow policy already in force regarding employment suitability to ensure no hire is made before TVA's Personnel Security Manager can determine if the applicant is suitable for a position of trust.

### **Workers' Compensation Overpayment Investigation Results in Humane Care for Elderly Individual**

An elderly Alabama resident continued to receive Workers' Compensation benefits that should have ceased at his wife's death. As a result, we determined he had been overpaid \$7,738, and OWCP agreed. During the course of our investigation, we found overwhelming evidence the individual was being financially exploited by distant relatives; and, although they purportedly tended to his physical needs, he suffered

are responsible for providing their own meals during those shifts. However, if the overtime is unscheduled TVA provides meal payment. Our investigation found that in many instances foreseeable overtime was not scheduled but arranged "on the fly" and was, as such, considered unscheduled. In instances where the unscheduled aspect could have been avoided, employees were still being reimbursed or provided a stipend for meals on-shift.

We reported our findings to management. The Generation Group reviewed our analyses of scheduled versus unscheduled overtime at TVA sites and stated results were consistent with

recent internal analysis they had performed. The Generation Group decided all plants would have a scheduled overtime policy in place and active by July 20, 2012. Our conservative projection of savings to TVA, as a result, totals \$1.1 million over the next five years.

### **Employee Termination and Review of Hiring Process**

We investigated an allegation that an executive-level management assistant falsified and/or omitted information on her TVA employment application materials. Evidence revealed she falsified, misrepresented, and omitted information to obtain TVA employment. As a result of this phase of our investigation,

significantly from neglect. The investigating agent contacted and followed up with the Alabama Department of Human Resources, and a guardian ad litem was appointed to advocate for the elderly individual's best interests. As a result, his health and mental acuity greatly improved, and the overpayment was rectified. Civil and criminal proceedings against two allegedly exploitative relatives are currently pending.

### Long-term Travel Issues Investigated

Based on an allegation received from TVA management, we reviewed the expenses of a management-level employee who was assigned to a site away from his official duty station for over a year. He was placed in travel status for this extended period. Our investigation revealed the individual falsified meal expenses, which continually approached the maximum allowed for his location each day, and over-claimed lodging expenses. At that time, TVA travel policy required employees to report actual expenses incurred for reimbursement.

During the course of our investigation, we found two other management-level employees in the same organization had been in travel status for extended periods, away from their official duty stations, who similarly falsified their expenses. We reported our findings to management, questioning the reimbursement

amounts and whether duty stations should have been changed to reflect the actual workplace of the employees.

In response, management:

- Determined the first individual over claimed his lodging expenses by \$1,900, terminated his employment, and counseled the other two employees on TVA travel policy.
- Reviewed other departmental employees' expenses during the referenced period, and their reimbursement was also requested at a flat rate under the maximum allowed rather than actual expenses. (Management decided that because totals did not exceed allowable rates, no further action was taken.)
- Requested a TVA ethics official speak to department

leadership at the next quarterly management meeting.

- Expressed a difficulty in changing duty stations for employees who perform temporary work assignments throughout the Valley but is working with Human Resources to develop a consistent process for establishing official duty stations.

In addition to the employees noted, we conducted an investigation of their supervisor. As a result of our findings against him, including discouraging his subordinates from cooperating with the OIG, he resigned in lieu of termination, and his future TVA employment has been restricted.

Prosecution was declined in the above matters in favor of administrative remedies available to TVA.



# LEGISLATION & *Regulations*



## 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 to make recommendations in the semiannual reports . . . concerning the impact of such legislation or regulations on the economy and efficiency in the administration of programs and operations administered or financed by such establishment or the prevention and detection of fraud and abuse in such programs and operations.”



During this reporting period, we have the following recommendations concerning the impact of current or pending law on the economy and efficiency in the administration of TVA operations and programs.

### **Congressional Responses to Cyber Security Risks**

As described in our feature article, there are serious threats to our nation’s cyber security. Congress has enacted many laws and regulations to improve

cyber security. Today more than 40 bills and resolutions with provisions related to cyber security have been introduced and are pending, including several proposing revisions to current laws. Furthermore, the White House is considering issuing an Executive Order on cyber security because of the difficulty Congress is having in agreeing on legislation.



Our concerns are that we avoid duplication of efforts, authorities and standards, and that we avoid establishing a checklist mentality to cyber security. We need an approach to cyber security which is flexible and quick to respond. We need information on the latest threats to be centralized and quickly dispersed without bureaucratic delays. We also would encourage a federal center to help detect, monitor and analyze attacks, with a mission not to regulate, but to expand cyber security research and improve government-industry cooperation.

# APPENDICES



**INDEX OF REPORTING REQUIREMENTS UNDER THE INSPECTOR GENERAL ACT**

<b>REPORTING</b>	<b>REQUIREMENT</b>	<b>PAGE</b>
Section 4(a)(2)	Review of Legislation and Regulations	49
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Section 5(a)(3)	Recommendations Described in Previous Semiannual Reports in Which Corrective Action Has Not Been Completed	Appendix 4
Section 5(a)(4)	Matters Referred to Prosecutive Authorities and the Prosecutions and Convictions That Have Resulted	Appendix 5 43-47
Section 5(a)(5) and 6(b)(2)	Summary of Instances Where Information Was Refused	None
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Section 5(a)(8)	Status of Management Decisions for Audit and Evaluation Reports Containing Questioned Costs	Appendix 3
Section 5(a)(9)	Status of Management Decisions for Audit and Evaluation Reports Containing Recommendations That Funds Be Put to Better Use	Appendix 3
Section 5(a)(10)	Summary of Audit and Evaluation Reports Issued Prior to the Beginning of the Reporting Period for Which No Management Decision Has Been Made	None
Section 5(a)(11)	Significant Revised Management Decisions	None
Section 5(a)(12)	Significant Management Decisions With Which the Inspector General Disagreed	None
Section 5(a)(13)	Information Under Federal Financial Management Improvement Act of 1996	None
Section 5(a)(14)	Appendix of results of any peer review conducted by another Office of the Inspector General during the reporting period and, if none, a statement of the date of the last peer review	Appendix 8
Section 5(a)(15)	List of outstanding recommendations from any peer review conducted by another Office of the Inspector General, including a statement describing the status of the implementation and why implementation is not complete	None
Section 5(a)(16)	List of peer reviews conducted of another Office of the Inspector General during the reporting period, including a list of any outstanding recommendations made from any previous peer review that remain outstanding or have not been implemented	None

## APPENDIX 2

### OIG AUDIT REPORTS • Issued During the Six-Month Period Ended September 30, 2012

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
<b>CONTRACT AUDITS</b>				
2011-14150 05/07/2012	Westinghouse Material Escalation Billings	\$164,325	\$0	\$0
2010-13104-01 06/21/2012	Pressures On, Inc.	\$4,145,909	\$2,482,444	\$0
2012-14559 08/02/2012	Proposal for Project Controls Support – Company I	\$0	\$0	\$1,037,000
2011-13899 08/03/2012	Trans Ash, Inc. – Ash Management Services at Johnsonville Fossil Plant	\$1,666,585	\$13,866	\$0
2012-14566 08/09/2012	Proposal for Project Controls Support – Company II	\$0	\$0	\$66,675
2012-14611 08/23/2012	Proposal for Revised Indirect Cost Rates – Company I	\$0	\$0	\$1,700,000
2012-14614 09/07/2012	Proposal for Revised Indirect Cost Rates – Company II	\$0	\$0	\$7,400,000
2010-13347 09/10/2012	Bechtel Power Corporation	\$1,449,752	\$91,794	\$0
2011-14225 09/26/2012	Hartford Steam Boiler	\$679,370	\$0	\$0
<b>CORPORATE GOVERNANCE AND FINANCE AUDITS</b>				
2011-14340-01 04/04/2012	TVA's Compliance with IPIA FY 2011	\$0	\$0	\$0
2010-13658 05/31/2012	Distributor Audit of Knoxville Utilities Board	\$0	\$0	\$0
2010-13657 06/29/2012	Distributor Audit of Memphis Light, Gas, and Water	\$3,601,693	\$0	\$0
2011-14244 09/28/2012	TVA's Direct Load Control Program	\$0	\$0	\$0
2011-14477 09/28/2012	TVA's Financial Trading Program	\$0	\$0	\$0
<b>OPERATIONAL AUDITS</b>				
2011-13945 06/29/2012	New Expense Management System Implementation	\$0	\$0	\$0
2012-14570 08/24/2012	Performance of Agreed Upon Procedures for CRS Green-e Energy Program Reporting Year 2011	\$0	\$0	\$0
2011-14158 09/18/2012	Craft Labor Staffing	\$0	\$0	\$0
2011-13781 09/21/2012	Lessons Learned During Construction of the Lagoon Creek Combined-Cycle Combustion Turbine	\$0	\$0	\$0
<b>INFORMATION TECHNOLOGY AUDITS</b>				
2011-14177 04/23/2012	Regional Operations Center and System Operations Center Cyber Security Audit	\$0	\$0	\$0
2010-14183 05/07/2012	Volunteer Substation Cyber Security	\$0	\$0	\$0
2012-14422 06/07/2012	Oracle eBusiness Suite Upgrade Audit	\$0	\$0	\$0

**OIG AUDIT REPORTS • Issued During the Six-Month Period Ended September 30, 2012 (CONTINUED)**

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
2012-14419 08/17/2012	Controls for Handling TVA Private Information – SHPS	\$0	\$0	\$0
2012-14429 08/30/2012	Controls for Handling TVA Private Information – World Travel	\$0	\$0	\$0
2012-14580 09/04/2012	HP Service Manager Implementation Audit	\$0	\$0	\$0
2012-14425 09/24/2012	TVA Protection of Private Information	\$0	\$0	\$0
<b>TOTAL AUDITS (25)</b>		<b>\$11,707,634</b>	<b>\$2,588,104</b>	<b>\$10,203,675</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).

**OIG EVALUATION REPORTS • Issued During the Six-Month Period Ended September 30, 2012**

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
2011-14061 05/02/2012	Review of Energy Efficiency and Demand Response	\$0	\$0	\$0
2011-14109 05/11/2012	Review of Non-Time-Critical Kingston Ash Recovery Project Activities	\$0	\$0	\$0
2011-14057 05/14/2012	Safety of Gas Line and Gas Plant Operations	\$0	\$0	\$0
2010-13088 05/18/2012	Status Review of the Watts Bar Unit 2 Construction Project Schedule and Budget	\$0	\$0	\$0
2009-12883 09/20/2012	Survey of TVA’s Process for Determining Condition of Assets	\$0	\$0	\$0
2012-14531 09/28/2012	Completion of PowerPlant’s Project/Portfolio Management Function	\$0	\$0	\$0
<b>TOTAL EVALUATIONS (6)</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).

**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	0	\$0	\$0
B. Which were issued during the reporting period	6	\$11,707,634	\$2,588,104
<b>Subtotal (A+B)</b>	<b>6<sup>1</sup></b>	<b>\$11,707,634</b>	<b>\$2,588,104</b>
C. For which a management decision was made during the reporting period	6 <sup>2</sup>	\$10,803,936	\$2,588,104
1. Dollar value of disallowed costs	6	\$9,153,313	\$2,588,104
2. Dollar value of costs not disallowed	1	\$1,650,623	\$0
D. For which no management decision has been made by the end of the reporting period	1	\$903,698	\$0
E. For which no management decision was made within six months of issuance	0	\$0	\$0

<sup>1</sup> The subtotal of reports (A+B) differs from the sum of C and D when the same report(s) contain recommendations on which a management decision was made and others on which a management decision was not made by the end of the semiannual period.

<sup>2</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
<b>Subtotal (A+B)</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>
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**

<b>Audit Reports</b>	<b>Number of Reports</b>	<b>Funds To Be Put To Better Use</b>
A. For which no management decision has been made by the commencement of the period	1	\$859,000
B. Which were issued during the reporting period	4	\$10,203,675
<b>Subtotal (A+B)</b>	<b>5</b>	<b>\$11,062,675</b>
C. For which a management decision was made during the reporting period	3 <sup>1</sup>	\$1,962,675
1. Dollar value of recommendations agreed to by management	3	\$1,234,675
2. Dollar value of recommendations not agreed to by management	1	\$728,000
D. For which no management decision has been made by the end of the reporting period	2	\$9,100,000
E. For which no management decision was made within six months of issuance	0	\$0

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

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

<b>Evaluation Reports</b>	<b>Number of Reports</b>	<b>Funds To Be Put To Better Use</b>
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
<b>Subtotal (A+B)</b>	<b>0</b>	<b>\$0</b>
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

## AUDIT AND EVALUATION REPORTS WITH CORRECTIVE ACTIONS PENDING

As of the end of the semiannual period, final corrective actions associated with 17 audits and 6 evaluations reported in previous semiannual reports were not completed. Presented below for each audit and evaluation are the report number and date and a brief description of final actions planned to resolve the open recommendations and the date management expects to complete final action.

Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2007-11216 06/02/2008	<p><b>Review of TVA Actions to Protect Social Security Numbers and Eliminate Their Unnecessary Use</b></p> <p>TVA agreed to implement protective measures for applications and reports containing social security numbers, such as restricting access and logging downloads. Management expects final action to be completed by May 31, 2013.</p>
2008-12127 09/24/2009	<p><b>Hydroelectric Plant Automation – General, Physical, and Security Controls Review</b></p> <p>TVA agreed to implement the new access control system at all sites and further restrict access to key components. Management expects final action to be completed by September 30, 2015.</p>
2009-12650 05/19/2010	<p><b>Use and Protection of Personally Identifiable Information</b></p> <p>TVA agreed to improve the privacy program by defining security officer responsibilities. Management expected final action to be completed by September 30, 2012.</p>
2010-13033 10/12/2012	<p><b>Effectiveness of Cyber Security Monitoring Follow-up Review</b></p> <p>TVA agreed to perform a risk assessment of TVA's intrusion detection/prevention system device implementation. Management expects final action to be completed by November 30, 2012.</p>
2009-12699 12/09/2010	<p><b>Follow-up Review of TVA's Role as a Rate Regulator – Use of Electric Revenues for Nonelectric Purposes</b></p> <p>TVA agreed to (1) determine when distributor reserves become excessive and should be returned to the ratepayers in the form of rate reductions, and (2) review and ensure all distributors using electric system revenues for nonelectric system purposes have appropriate protections in place. TVA distributor staff will look for electric system use of revenue for nonelectric system purposes when they perform their annual review of distributor financial information. As part of this review, any unapproved use of electric system use of revenues for nonelectric system uses will be evaluated for further action. Management expects final action to be completed by March 31, 2013.</p>
2010-13366 04/05/2011	<p><b>Information Technology Organizational Effectiveness</b></p> <p>TVA management agreed with the audit findings and has provided detailed plans and target dates to implement the audit recommendations. Management expects to complete final action by August 30, 2013.</p>
2010-13132 06/15/2011	<p><b>Review of Physical and Logical Access for Contractors</b></p> <p>TVA agreed to (1) create a cross-reference matrix of TVA roles to assets with the associated qualification/background requirements needed to gain access to that asset and develop a process to restrict contractor access to sensitive data and assets until the proper clearances have been obtained and (2) ensure that requests for master keys by Energy Delivery are sent to Physical Security to verify the proper security clearance has been obtained prior to issuing the key. Management expects to complete final action by December 31, 2014.</p>

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

Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2011-13820 07/14/2011	<p><b>Audit of Information Technology General Controls – Configuration Management</b></p> <p>TVA agreed to verify all configuration items are tracked in a configuration management tool. Management expects to complete final action by January 30, 2013.</p>
2011-13826 07/18/2011	<p><b>Audit of Information Technology General Controls – Computer Operations</b></p> <p>TVA agreed to eliminate redundant backup failure messages in Hewlett Packard OpenView and implement a process to address backup failures in a timely manner, and (2) complete disaster recovery testing for critical applications. Management expects to complete final action by November 30, 2012.</p>
2010-13285 11/16/2011	<p><b>Distributor Audit of Volunteer Energy Cooperative</b></p> <p>TVA management agreed to work with Volunteer to address identified instances of noncompliance in the areas of use of revenues, financial reporting to TVA, and internal controls. TVA management also agreed to address two issues related to oversight of distributors. Management expects to complete final action by March 31, 2013.</p>
2011-13760 11/17/2011	<p><b>Federal Information Security Management Act (FISMA) Evaluation</b></p> <p>TVA management agreed to (1) implement an updated system security authorization process, (2) implement an updated continuous monitoring process, (3) appoint key agency FISMA roles and security responsibilities and update training for personnel with key roles, (4) update system security authorizations based on revised processes, (5) ensure plans of action and milestones are updated timely and monitored for completion, (6) develop a personal identity verification (PIV) project plan to align with federal guidance for use of PIV, (7) publish security risk information and overall security program progress to agency officials, (8) track development of contingency plans and testing schedules for authorized systems, (9) develop a policy to authorize contractor information systems, (10) identify information needs for contractor systems and the appropriate asset management system, (11) implement agreements for external interfaces, (12) implement an IT standard policy and procedure to identify security requirements in capital projects, and (13) implement holistic security governance with a chief executive officer-level security policy and agency security steering committee. Management expects to complete final action by March 29, 2013.</p>
2011-14305 12/15/2011	<p><b>Review of Cost Recovery Rates for Engineering Services</b></p> <p>TVA management concurred with the \$3.1 million in funds for better use findings and stated it will engage the contractor in negotiation to obtain rates that more accurately reflect actual costs and recover as much of the inflated amounts already paid to the contractor as practicable. Management expects to complete final action by December 15, 2012.</p>
2010-13671 12/15/2011	<p><b>Cumberland Fossil Plant – Cyber Security Assessment</b></p> <p>TVA agreed to (1) evaluate options to remediate weaknesses in the current design of the one-way connection bypass and implement solutions; (2) develop a Dataware application standard to evaluate Dataware usage and determine Dataware's service level; (3) develop a logical security standard and evaluate logical security controls; (4) patch identified systems, implement a new monthly patching schedule and ensure required patches are in place for all IT-supported desktops; (5) communicate expectations of human behaviors regarding logical security, physical security, adherence to procedures, self-assess identified human performance vulnerabilities, and establish physical security standards for cyber assets and develop a Keys and Locks procedure to address procedural weaknesses; and (6) perform policy/procedure gap analysis, evaluate evidence and artifact requirements for oversight and effectiveness assessment and integrate remediation into a plan of action. Management expects to complete final action by January 31, 2013.</p>

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

Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2010-13656 12/20/2011	<p><b>Review of TVA Demurrage Costs</b></p> <p>TVA agreed to review its contracts with Kinder Morgan and consult with the Office of the General Counsel to determine the feasibility of recovering demurrage charges and develop actions to recover charges, where possible, and evaluate burning a non-blended coal at Allen Fossil Plant (ALF). In addition, ALF plans to evaluate training of operators to reduce or eliminate barge damage and communicate key contract requirements and operating conditions among contract administrators, Yard Operations personnel, and others. Management expects to complete final action by December 20, 2012.</p>
2009-12779 01/12/2012	<p><b>Williams Plant Services, LLC – Contract Compliance</b></p> <p>TVA Supply Chain agreed to pursue recovery of \$950,113 from the contractor. Management expects to complete final action by December 12, 2012.</p>
2011-14155 02/08/2012	<p><b>Hartford Steam Boiler</b></p> <p>Supply Chain plans to provide final action on pay rate compensation terms after further discussions with the contractor. Management expects to complete final action by October 31, 2012.</p>
2010-13659 03/22/2012	<p><b>Distributor Audit of Meriwether Lewis Electric Cooperative</b></p> <p>TVA management agreed to recommend the TVA Board formally approve a use of revenues policy which expressly approves distributor participation in the United States Department of Agriculture Rural Economic Development Loan and Grant Program and use of electric funds for economic development. TVA management also stated the distributor will review the commercial and residential accounts that are misclassified and reclassify the accounts as appropriate. Management expects to complete final action by March 22, 2013.</p>
2005-5181 08/31/2005	<p><b>Review of Physical and Environmental Controls for the Chattanooga Data Center</b></p> <p>TVA agreed to replace the Chattanooga office complex telephone system with a system operating on the Internet Protocol to eliminate three specific failure modes which could hamper or eliminate TVA's communication ability. Implementation of the new communication system has been delayed by management due to what is considered higher priority projects. Management is targeting final action to be completed by December 31, 2012.</p>
2008-12007 05/13/2009	<p><b>Distributor Review of Monroe County Electric Power Authority</b></p> <p>TVA agreed to (1) consider feasibility of a comprehensive guideline for permissible expenditures, and (2) recommend to the TVA Board that additional financial metrics, including when cash reserves become excessive, be implemented in the rate setting process. Management expects final action to be completed by March 31, 2013.</p>
2008-12040 05/13/2009	<p><b>Distributor Review of Lewisburg Electric System</b></p> <p>TVA agreed to (1) consider feasibility of a comprehensive guideline for permissible expenditures, and (2) recommend to the TVA Board that additional financial metrics, including when cash reserves become excessive, be implemented in the rate setting process. Management expects final action to be completed by March 31, 2013.</p>
2008-11829 06/02/2010	<p><b>Review of TVA Records Retention</b></p> <p>TVA agreed to continue current plans to replace the Electronic Data Management System. Management expects final action to be completed by May 29, 2015.</p>

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

Report Number and Date	Report Title and Recommendation(s) for Which Final Action is Not Complete
2009-12991 06/21/2011	<p><b>Review of TVA Groundwater Monitoring at Coal Combustion Products Disposal Areas</b></p> <p>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.</p>
2010-13233 12/08/2011	<p><b>Review of Nuclear Power Group's Performance Trends</b></p> <p>TVA agreed to (1) drive excellence in standards through the Culture of Excellence Plan, (2) continue efforts to be proactive in enhancing the organization by initiating improvements in human performance, and (3) build relationships and trust by enhancing workforce engagement through the Culture of Excellence Plan. Management expects to complete final action by October 30, 2012.</p>



*Cumberland Fossil Plant*

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

Referrals	
Subjects Referred to U.S. Attorneys	12
Subjects Referred to State/Local Authorities	7
Results	
Subject Indicted	1
Subjects Convicted	1
Pretrial Diversion	0
Referrals Declined	23

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



HIGHLIGHTS – STATISTICS

	SEPT 30, 2012	MAR 31, 2012	SEPT 30, 2011	MAR 31, 2011	SEPT 30, 2010
<b>AUDITS</b>					
<b>AUDIT STATISTICS</b>					
Carried Forward	35	34	46	40	60
Started	28	23	16	29	28
Canceled	(6)	(2)	(2)	(3)	(7)
Completed	(25)	(20)	(26)	(20)	(41)
In Progress at End of Reporting Period	32	35	34	46	40
<b>AUDIT RESULTS (Thousands)</b>					
Questioned Costs	\$11,708	\$5,110	\$1,327	\$4,846	\$2,713
Disallowed by TVA	\$9,153	\$5,691	\$655	\$1,303	\$1,879
Recovered by TVA	\$4,168 <sup>1</sup>	\$1,143 <sup>2</sup>	\$326	\$763	\$1,965 <sup>3</sup>
Funds To Be Put To Better Use	\$10,204	\$6,702	\$4,945	\$24,963	\$13,696
Agreed to by TVA	\$1,235	\$9,558	\$20,005	\$7,450	\$149
Realized by TVA	\$1,235	\$2,441 <sup>4</sup>	\$1,162	\$12,750 <sup>5</sup>	\$2,091
<b>OTHER AUDIT-RELATED PROJECTS</b>					
Completed	10	9	19	13	27
Cost Savings Identified/Realized (Thousands)	\$0	\$0	\$0	\$0	\$0
<b>EVALUATIONS</b>					
Completed	6	1	8	3	9
Cost Savings Identified/Realized (Thousands)	\$0	\$0	\$0	\$0	\$0
<b>INVESTIGATIONS<sup>6</sup></b>					
<b>INVESTIGATION CASELOAD</b>					
Opened	148	178	190	190	199
Closed	157	202	228	161	221
In Progress at End of Reporting Period	128	146	163	199	167
<b>INVESTIGATIVE RESULTS (Thousands)</b>					
Recoveries	\$4,416.4	\$17.5	\$8	\$2,144	\$36.2
Savings	1,454.7	0	0	2,515	4,028
Fines/Penalties	0.3	1.7	1	453	8 <sup>7</sup>
Other Monetary Loss	\$83.4	\$496,500	\$9,693 <sup>8</sup>		
<b>MANAGEMENT ACTIONS</b>					
Disciplinary Actions Taken (No. of Subjects)	11	19	23	7	14
Counseling/Management Techniques Employed (No. of Cases)	20	24	18	24	31
Debarment	0	2	0	1 <sup>9</sup>	
<b>PROSECUTIVE ACTIVITIES (No. of Subjects)</b>					
Referred to U.S. Attorneys	12	14	22	22	51
Referred to State/Local Authorities	7	1	3	1	2
Indicted	1	5	6	1	7
Convicted	1	4	5	1	8
Pretrial Diversion	0	1	1	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> Adjusted to correct amount reported in prior semiannual reports.

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

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

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

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

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

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



*Kingston Fossil Plant*

## APPENDIX 7

### GOVERNMENT CONTRACTOR AUDIT FINDINGS

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

## PEER REVIEWS OF THE TVA OIG

### Audits Peer Review

IG audit organizations are required to undergo an external peer review of their system of quality control at least once every three years, based on requirements in the *Government Auditing Standards* (Yellow Book). Federal audit organizations can receive a rating of pass, pass with deficiencies, or fail. TVA OIG underwent its most recent peer review of its audit organization for the period ended September 30, 2010. The review was performed by an ad hoc team appointed by the Council of Inspectors General on Integrity and Efficiency and led by the U.S. Department of Education (Education) Office of the Inspector General (OIG). Education OIG issued the report, dated March 21, 2011, in which it concluded that the TVA OIG audit organization's system of quality control for the fiscal year ended September 30, 2010, was suitably designed and complied with to provide the OIG with reasonable assurance of performing and reporting in conformity with applicable professional auditing standards in all material respects.

Accordingly, TVA OIG received a rating of pass. The peer review report is posted on our Web site at <http://oig.tva.gov/peer-review.html>.

### Investigations Peer Review

Investigative operations undergo an external peer review, Quality Assessment Review (QAR), at least once every three years. During the semiannual period ended September 30, 2010, the Office of Personnel Management (OPM) OIG conducted a QAR of the TVA OIG Investigative Operations. The OPM OIG found the “. . . system of internal safeguards and management procedures for the investigative function of the TVA OIG in effect for the year ending August 1, 2010, is in compliance with the *Quality Standards for Investigations* and the Attorney General guidelines. These safeguards and procedures provide reasonable assurance of conforming with professional standards in the conduct of investigations.” The QAR report can be found on our Web site at <http://oig.tva.gov/peer-review.html>.



# GLOSSARY

*Abbreviations & Acronyms*

**DISALLOWED COST** – A questioned cost that management, in a management decision, has sustained or agreed should not be charged to the agency.

**FINAL ACTION** – 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 Improper Payment Information Act.

**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.

AIG	Assistant Inspector General
CEO	Chief Executive Officer
CRS	Center for Resource Solutions
DHS	U.S. Department of Homeland Security
DLC	Direct Load Control Program
Education	U.S. Department of Education
FCA	Fuel Cost Adjustment
FISMA	Federal Information Security Management Act
FRA	Fraud Risk Assessment
FS	Financial Services
FTP	Financial Trading Program
FY	Fiscal Year
GC	Generation Construction
HHS	Health and Human Services
IG	Inspector General
IRP	Integrated Resource Plan
IT	Information Technology
JCC	John Sevier Combined Cycle
LCC	Lagoon Creek Combined Cycle
NCCC	National Center for Cybersecurity and Communications
OIG	Office of the Inspector General
O&M	Operations & Maintenance
OMB	Office of Management and Budget
OPM	Office of Personnel Management
OWCP	Office of Workers' Compensation Programs
PHI	Personal Health Information
PII	Personally Identifiable Information
PMMA	Project Maintenance and Modification Agreement
PPM	Project/Portfolio Management
QAR	Quality Assessment Review
RO	River Operations
SBU	Strategic Business Units
TVA	Tennessee Valley Authority
TVA Board	TVA Board of Directors
TVAP	TVA Police
VaR	Value at Risk
Watts Bar	Watts Bar Nuclear Plant



## OFFICE of the INSPECTOR GENERAL

400 West Summit Hill Drive  
Knoxville, Tennessee 37902

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

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

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

# NAVIGATING RISK

· *A FOCUS ON CYBER SECURITY* ·



Office of the Inspector General  
TENNESSEE VALLEY AUTHORITY  
*Semiannual Report*  
April 1, 2012 - September 30, 2012