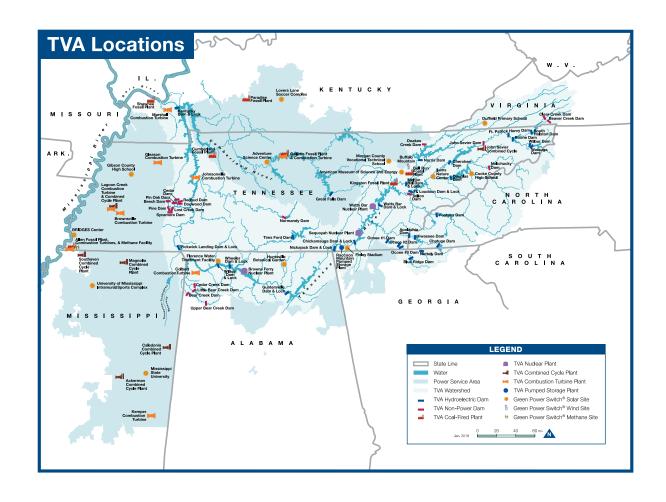
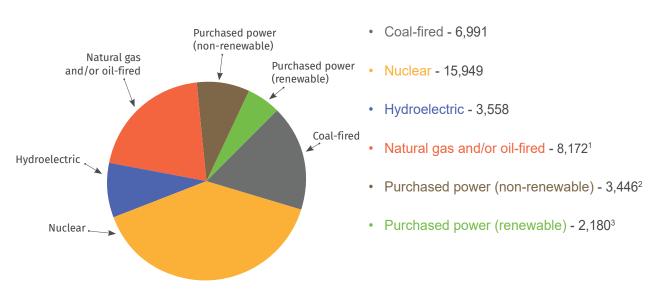


Office of the Inspector General Tennessee Valley Authority Semiannual Report October 1, 2017 - March 31, 2018





#### TVA Power Generation and Purchased Power Six Months Ended March 31, 2018 (in millions of kilowatt hours)



- 1 The natural gas and/or oil-fired amount includes approximately 411 million kWh and 262 million kWh of pre-commercial generation at Allen and Paradise Combined Cycle Plants for the three months ended March 31, 2018 and 2017, respectively.
- <sup>2</sup> Purchased power (non-renewable) includes generation from Caledonia Combined Cycle Plant, which is currently a leased facility operated by TVA. Generation from Caledonia Cycle Plant was 979 million kWh for the three months ended March 31, 2018 and 2017, respectively.
- <sup>3</sup> Purchased power (renewable) includes power purchased from the following renewable sources: hydroelectric, solar, wind, and cogeneration.

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#### **MESSAGE FROM THE**

### **ACTING INSPECTOR GENERAL**

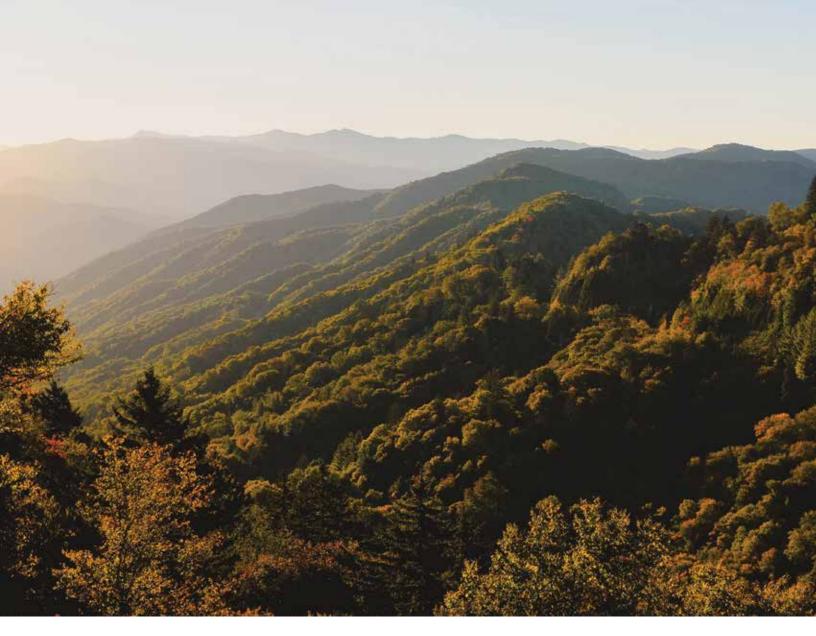


I am pleased to present our report for the period October 1, 2017, to March 31, 2018. For 85 years, Tennessee Valley Authority (TVA) has been working to improve the lives of the people in the Tennessee Valley. This unique government corporation accomplishes this goal through energy production, environmental stewardship, and economic development. Our office provides independent analyses of TVA operations and programs to help identify more efficient and effective ways to do business and to prevent and detect fraud, waste, and abuse. In performing our mission, we approach our work with the intention of making TVA better for the people of the Tennessee Valley.

In this semiannual period, our audit, evaluation, and investigative activities identified approximately \$57.9 million in funds TVA could put to better use, questioned costs, recoveries and savings, other monetary loss, and court-ordered forfeitures. In addition, we shared numerous opportunities for TVA to improve its programs and operations. Below are highlights of our work this period.

- Five preaward contract examinations of cost proposals submitted by companies to provide civil projects and coal combustion residual program management services identified almost \$40 million in potential savings opportunities for TVA.
- An audit of TVA's fixed-wing aircraft program found significant weaknesses in the (1) sole source justifications and pre-purchase analyses for two aircraft purchased in 2015, and (2) compliance with applicable laws, regulations, and TVA policy and procedures. In addition, the audit determined the purchase of a jet instead of a second turboprop plane was not cost effective.
- A compliance audit of a contract with expenditures of \$502 million identified potential overbillings of \$6.8 million.

- An evaluation of TVA's process for addressing the Nuclear Regulatory Commission's (NRC) 2009
   Confirmatory Order determined TVA did not have a formal process or procedure for addressing confirmatory orders. TVA's approach also had weaknesses in assignment of accountability, oversight of implementation for new actions, and oversight of continued execution for ongoing actions.
- Three evaluations of TVA's Corrective Action Programs at Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants identified areas for improvement.
- An evaluation of TVA's management of employee medical work restrictions and accommodations determined there were gaps that resulted in the process being ineffective.
- An evaluation of TVA's fuel cost adjustment (FCA)
   calculations determined TVA was not using all
   appropriate sales data to calculate the FCA, and the
   FCA process could be improved to reduce the risk of
   errors.
- An organizational effectiveness review of the Chief Human Resources Office (CHRO) identified strengths related to organizational alignment, development of



CHRO strategy, and management support within the business units. In addition, potential engagement and execution risks were identified that could negatively impact achievement of the CHRO's mission.

 Investigative results included eight individuals sentenced, two guilty pleas for making false claims to obtain temporary living allowance, an individual charged with dumping untreated sewage into the Clinch River, and two civil settlements involving Valley health-care providers. Civil restitution, administrative reimbursement, criminal restitution and forfeitures ordered, projected savings, and other monetary loss totaled more than \$11.4 million.

In January, our office was honored once again as one of the Best Places to Work in the federal government. This recognition is due to the commitment our team has made to continually focus on being better at not only what we do but how we perform our work every day.

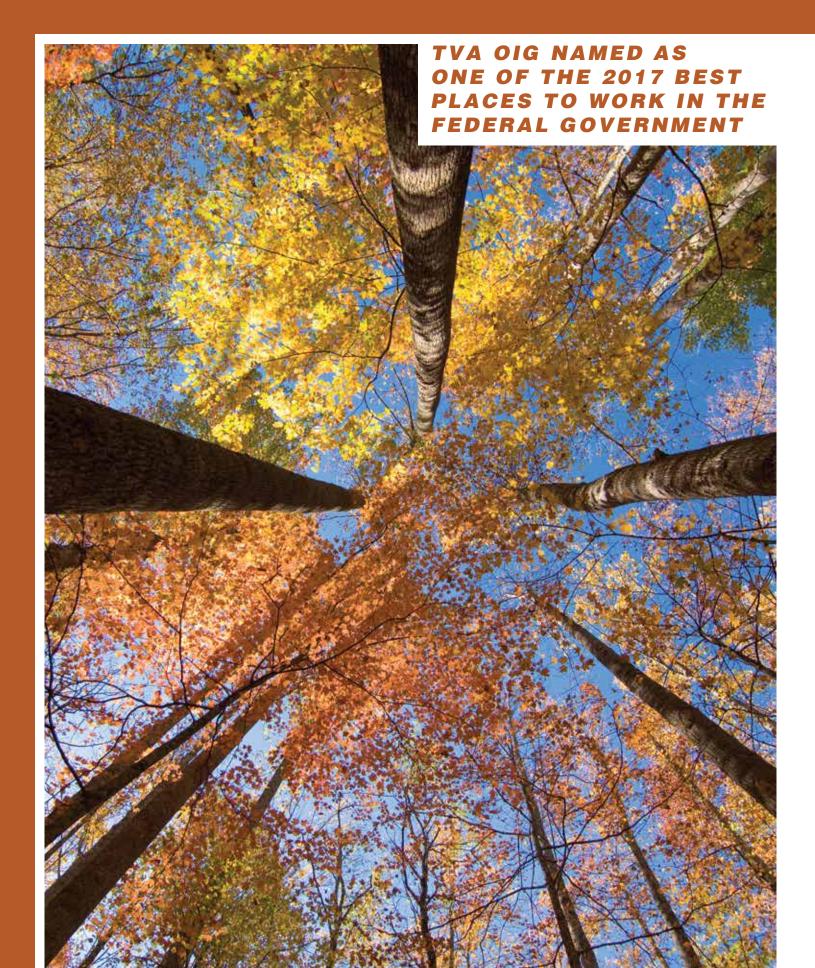
Finally, in January, Kenneth Allen of Kentucky, A.D. Frazier of Georgia, Jeff W. Smith of Tennessee, and James "Skip" Thompson III of Alabama were sworn in as the newest members of the TVA Board of Directors (Board), joining sitting members Chair Richard Howorth, Virginia Lodge, Eric Satz, and Ronald Walter. We welcome the new Board members and look forward to continuing to work with the entire Board toward our mutual purpose of making TVA better.

Jill M. Matthews

Jill M. Matthews

Acting Inspector General

## NOTEWORTHY EVENTS





Pictured are former OIG Leadership Council Chair Brendia Cookston (left) and Acting TVA Inspector General Jill Matthews with the award naming the TVA Office of the Inspector General as one of the Best Places to Work in the Federal Government.

The TVA Office of the Inspector General (OIG) has been named one of the Best Places to Work in the Federal Government in 2017 for a third consecutive year. The award was given in a ceremony in Washington, D.C., Friday, January 26, 2018, by the non-profit Partnership for Public Service and Deloitte, the accounting firm that determines the rankings.

TVA OIG was ranked second among the 339 federal agency subcomponents. Its ranking is based on the annual Federal Employee Viewpoint Survey conducted of federal government employees by the Office of Personnel Management.

Acting Inspector General Jill Matthews said, "I am proud of our office and the investment our team makes to foster and sustain a highly engaged and productive work environment. Every day, we remain focused on our vision to make TVA better. Our healthy office culture enhances our performance and allows us to provide greater value to TVA and the people of the Tennessee Valley."

Brendia Cookston, then-chair of the OIG Leadership Council, accepted the award for the TVA OIG and said, "Being named one of the best places to work would not have been possible without an engaged workforce dedicated to maintaining a healthy culture. Our team is excited to work together and serve the people of the Tennessee Valley. This award is evidence of the hard work and focus our employees continue to place on culture."

For more information on the Best Places to Work in the Federal Government, please visit <a href="https://www.bestplacestowork.org">www.bestplacestowork.org</a>.



## **EXECUTIVE OVERVIEW**



#### **AUDITS**

Our audit organization includes three departments that focus on contract audits, financial and operational audits, and information technology (IT) audits. During this reporting period, these teams completed 17 audit, examination, and agreed-upon procedures engagements. This work identified \$6.8 million in questioned costs for TVA to recover and identified \$39.6 million in funds the company could put to better use. We also identified several opportunities for TVA to improve the effectiveness and efficiency of its programs and operations.

#### **Contract Audits**

To support TVA management in negotiating procurement actions, we completed five preaward examinations of cost proposals submitted by companies proposing to provide civil projects and coal combustion residual program management services. Our examinations identified \$39.6 million of potential savings opportunities for TVA to negotiate. We also completed a compliance audit of a contract with expenditures totaling \$502 million for engineering, procurement, construction, and related services in support of the completion of TVA's Watts Bar Nuclear Plant Unit 2. This audit identified overbillings of \$6.8 million. The Contract Audits section begins on page 17 of this report.

### Financial and Operational Audits

With a focus on financial reporting, compliance with applicable laws and regulations, and TVA operations, we completed audits of TVA's fixed-wing aircraft and interruptible products. In addition to our audit work, we monitored the audit of TVA's fiscal year (FY) 2017 financial statements by an external auditor and applied agreed-upon procedures related to TVA's 2017 Winning Performance (WP) payout awards. The Financial and Operational Audits section begins on page 17 of this report.

#### IT Audits

The Federal Information Security Modernization Act (FISMA) of 2014 requires each Inspector General (IG) to conduct an annual assessment of the agency's IT security practices. We completed this requirement during the period. The IT Audits section begins on page 20 of this report.

#### **EVALUATIONS**

Our Evaluations organization includes two groups, one of which focuses on organizational effectiveness reviews. During this reporting period, our teams completed six evaluations and an organizational effectiveness review, all of which identified opportunities for improvement.

#### **Evaluations**

The Evaluations group completed six evaluations during this semiannual period. These included evaluations of the Corrective Action Programs at Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants; process for addressing the Confirmatory Order issued by the NRC in 2009, management of employee medical work restrictions and accommodations, and data used to calculate fuel cost adjustments. The Evaluations section begins on page 22 of this report.

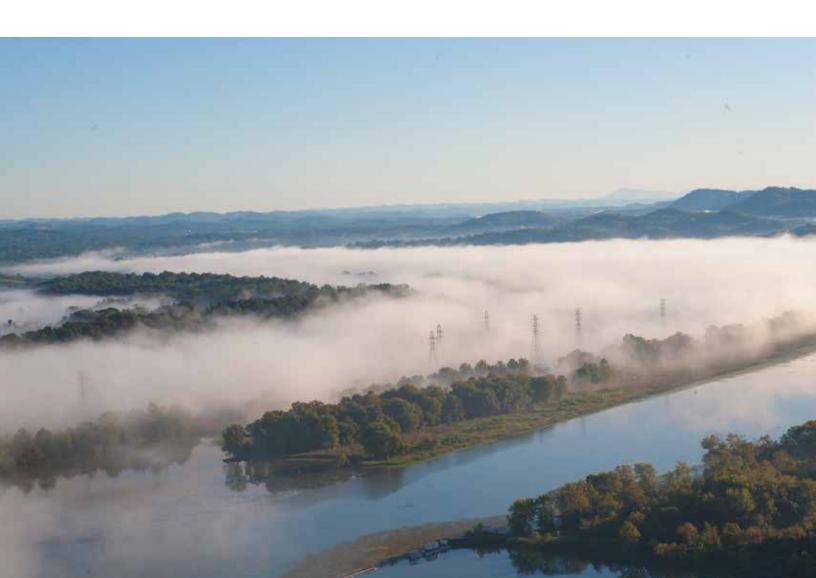
#### Organizational Effectiveness

This group evaluated the Chief Human Resources Office. The Organizational Effectiveness section begins on page 25 of this report.

#### **INVESTIGATIONS**

This reporting period, we opened 97 cases and closed 98. Our investigative results include several individuals variously charged, convicted, and sentenced. Civil restitution, administrative reimbursement, criminal restitutions and forfeitures ordered, projected savings, and other monetary loss totaled more than \$11.4 million. The Investigations section begins on page 26 of this report.

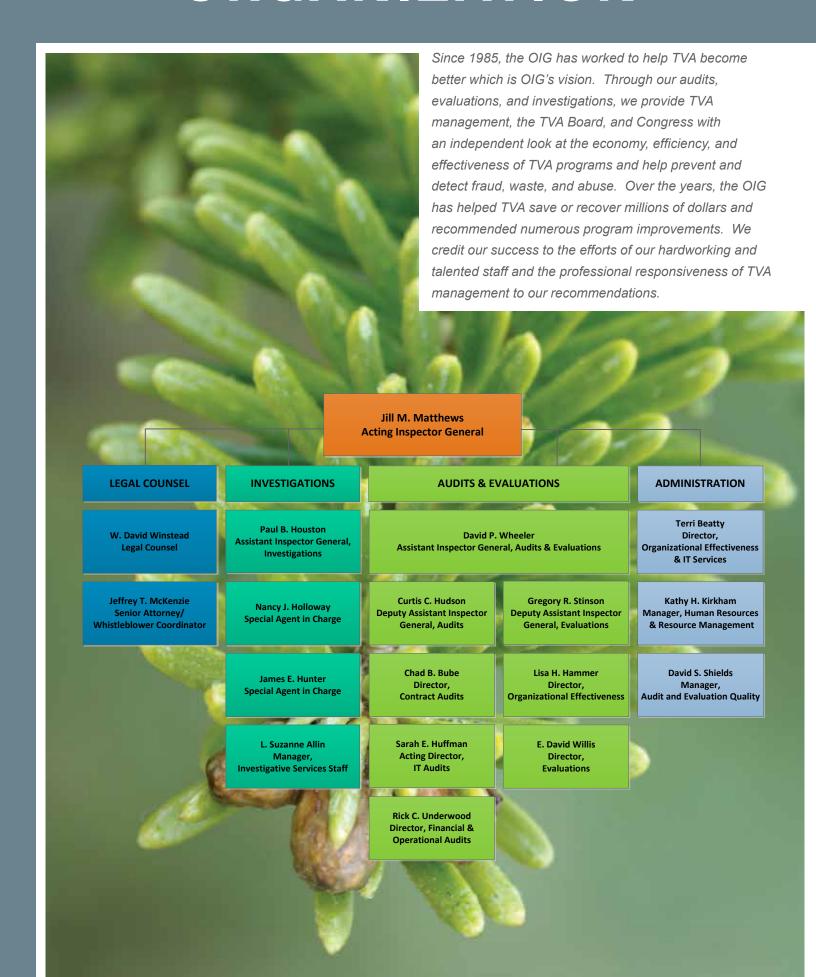
STATISTICAL HIGHLIGHTS		
October 1, 2017 – March 31, 2018		
Audit Reports Issued	10	
Evaluations Completed	7	
Questioned Costs	\$6,828,935	
Questioned Costs Agreed to by TVA	\$6,828,935	
Questioned Costs Recovered by TVA	\$0	
Funds to be Put to Better Use	\$39,638,727	
Savings Realized by TVA	\$8,676,685	
Investigations Opened	97	
Investigations Closed	98	
Recoveries/Fees/Savings	\$8,329,811	
Other Monetary Loss	\$40,846	
Criminal Forfeitures Ordered	\$3,041,891	
Criminal Actions	8	
Administrative Actions (Number of Subjects)	11	





Watts Bar Nuclear Plant

## ORGANIZATION



### TVA OIG OFFICE LOCATIONS

The OIG has a work philosophy of being in the right place at the right time to do the best work possible. We support that philosophy by encouraging our OIG employees to work where they can be most effective whether that is in one of our physical offices, in the field, or in one of our virtual offices that enable our employees to telework from home or while traveling.

The OIG has strategically located its offices near all major TVA offices throughout the Tennessee Valley. We are headquartered in TVA's Knoxville Office Complex overlooking the downtown area.

The OIG has field offices in Chattanooga, Tennessee, where members of the Evaluations and Financial and Operational Audits departments and several special agents are located. Special agents are also located in Nashville, Tennessee, and Huntsville, Alabama. Additionally, we have office locations at Watts Bar Nuclear Plant in Spring City, Tennessee, and Sequoyah Nuclear Plant in Soddy Daisy, Tennessee. Staff work in these locations as needed. As of March 31, 2018, the OIG had a total staff of 102.

#### **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, quality, and compliance, and achieve office goals. Responsibilities include personnel administration, internal assessments, budget and financial management, purchasing and contract services, facilities coordination, training event planning, communications facilitation, and IT support.

## AUDITS AND EVALUATIONS

The Audits and Evaluations teams perform a wide variety of engagements designed to promote positive

change and provide assurance to TVA stakeholders. Based upon the results of these engagements, the Audits and Evaluations organizations make recommendations to enhance the effectiveness and efficiency of TVA programs and operations.

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



Cumberland Fossil Plant

#### TYPES OF AUDIT & EVALUATION ISSUES

#### Financial and Operational Audits

- Program Inefficiencies/Ineffectiveness
- Legal/Regulatory Noncompliance
- Policy Noncompliance
- Internal Control Deficiencies
- Fraud

#### **Contract Audits**

- Inflated Proposals
- Contract Overpayments
- Inferior Performance
- Fraud

#### IT Audits

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

#### **Evaluations**

- Operational Inefficiency
- Policy Noncompliance
- Legal/Regulatory
   Noncompliance
- Fraud

#### Organizational Effectiveness

- Operational Ineffectiveness
- Cultural Areas for Improvement
- Unmitigated Risks
- Fraud

These issues vary depending on the objectives of the project. The graphic shows some representative examples of issues our audit and evaluation projects are commonly designed to identify.

The Audits team 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. The organization is made up of three departments—Contract Audits, Financial and Operational Audits, and IT Audits. The Audits organization performs its work in accordance with *Government Auditing Standards*.

- Contract Audits has lead responsibility for contract compliance audits and preaward examinations. In addition, this department performs audits of TVA contracting processes and provides claims assistance as well as litigation support.
- Financial and Operational Audits is responsible
  for performing audit work mandated by legislation,
  agreed-upon procedures, as well as risk-based
  audits associated with TVA financial and operational
  activities. The work stems largely from mandated
  activities, review of TVA's business-risk environment,
  consideration of emerging issues, and requests. This
  department also provides oversight of TVA's external
  auditor's compliance with professional standards.

 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 department also performs operational audits of the effectiveness of IT-related functions.

The Evaluations team assesses both operational and cultural aspects of programs and departments throughout TVA to ensure objectives and operational functions are achieved effectively and efficiently. This organization is made up of two departments—Evaluations and Organizational Effectiveness.

This organization performs its work in accordance with *Quality Standards for Inspection and Evaluation* as prescribed by the Council of the Inspectors General on Integrity and Efficiency (CIGIE).

- Evaluations performs both comprehensive reviews and more limited-scope policy and program reviews to monitor compliance, measure performance, and assess the efficiency and effectiveness of operations.
- Organizational Effectiveness performs risk-based reviews to assess operational and cultural areas, including strengths and risks that could impact an organization's ability to achieve its mission and goals.

#### INVESTIGATIONS

The Investigations team proactively and reactively uncovers activity related to fraud, waste, and abuse in TVA programs and operations. This organization performs its investigations in accordance with the Quality Standards for Investigations as prescribed by CIGIE, applicable U.S. Attorney General Guidelines, and other guiding documents. OIG special agents maintain liaisons with federal and state prosecutors and notify the U.S. Department of Justice whenever the OIG has reason to believe there has been a violation of federal criminal law. Special agents partner with other investigative agencies and organizations on special projects and assignments, including interagency law enforcement task forces on terrorism, the environment, health care, and public corruption, as well as securities fraud. The graphic shows the major categories of investigations.

#### LEGAL

The OIG Legal Counsel team monitors existing and proposed legislation and regulations that relate to the mandate, operations, and programs of the OIG and TVA. Additionally, this team provides legal advice as needed for administrative, audit, evaluation, and investigative projects. OIG attorneys serve as ethics officials, providing OIG employees guidance on government ethics and standards of conduct. The TVA Whistleblower Protection Coordinator is also a part of this team and provides information regarding the statutory protections against retaliation for all TVA employees.

#### **MAJOR CATEGORIES OF INVESTIGATIONS**

#### **Contract Fraud**

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

### Theft of Government Property and Services

Theft of TVA property such as material, tools, equipment, or resources

#### **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

### Workers' Compensation Fraud

Falsification of documents to receive payments by employees, former employees, or health-care providers

#### **Health Care Fraud**

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

#### **Employee Misconduct**

Misuse of TVA-furnished equipment, travel voucher fraud, a multitude of miscellaneous matters of abuse, conflict of interest, and violations of code of conduct

## Unauthorized Access Into TVA Computer Systems

Accessing a TVA computer without authorization or exceeding authorized access

#### **Special Projects**

Management requests, data mining and predictive analysis, congressional and TVA Board requests, and fraud risk assessments

## SUMMARY OF REPRESENTATIVE AUDITS





Cherokee Dam

#### CONTRACT AUDITS

#### Preaward Contract Examinations

To support TVA management in negotiating procurement actions, we completed five preaward examinations of cost proposals submitted by companies proposing to provide civil projects and coal combustion residual program management services. Our examinations identified \$39.6 million of potential savings opportunities for TVA to negotiate. The savings opportunities were primarily related to overstated cost proposals, including overstated labor rates, equipment costs, material costs, indirect cost recovery rates, and profit rates.

#### **Contract Compliance Audits**

During this semiannual period, we completed one compliance audit of a contract for engineering, procurement, construction, and related services in support of the completion of TVA's Watts Bar Nuclear Plant Unit 2. We audited \$502 million in craft labor costs billed to TVA by the contractor from January 1, 2010, to June 30, 2015. We determined the contractor overbilled TVA \$6,828,935. Specifically, the contractor overbilled:

 \$3,826,970 in ineligible craft labor and related costs, which included (1) \$3,584,707 for ineligible overtime and double time costs, (2) \$195,850 for ineligible personnel history questionnaire incentive payments, and (3) \$46,413 for ineligible and/or unsupported meal allowances.

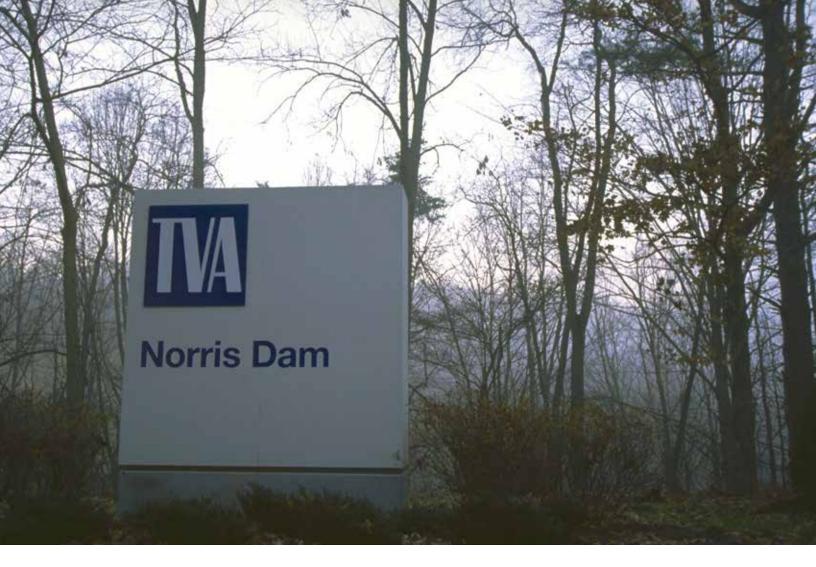
- \$2,932,151 for ineligible and excessive craft labor costs for material handling.
- \$60,808 in overbilled craft labor due to the use of an incorrect contribution rate for craft labor.
- \$9,006 in other unsupported and ineligible craft labor costs.

## FINANCIAL AND OPERATIONAL AUDITS

During this semiannual period, Financial and Operational Audits completed audits of TVA's fixed-wing aircraft and TVA interruptible products. In addition, the team monitored the audit of TVA's FY 2017 financial statements by an external auditor and applied agreed-upon procedures related to TVA's 2017 WP payout awards.

#### TVA's Fixed-Wing Aircraft

TVA purchased two new fixed-wing aircraft (FWA) through sole source contracts in May 2015 for \$17.7 million (\$11.2 million for a Citation XLS + jet and \$6.5 million for a King Air 350i turboprop). Due to the cost associated



with these purchases, we audited TVA's FWA to determine (1) whether TVA's decision to purchase these aircraft was reasonable compared to aircraft used by other utilities, (2) how the cost and use of the aircraft compared to that of other utilities and industry standards, and (3) whether the use of the aircraft is consistent with applicable federal laws and regulations. Our audit scope included all flight legs by both aircraft between July 1, 2015, and February 28, 2017.

We were unable to obtain benchmarking information about the cost and use of FWA for other utilities. However, we were able to determine the number of FWA in TVA's fleet is generally comparable to the number of FWA maintained by eight of its peers. We also determined:

 TVA's stated justifications for sole sourcing the purchase of the aircraft (capable of carrying nine passengers and landing within a 4,000-foot runway) were not supported by analytical cost, safety, reliability, or time efficiency documentation, nor did the documentation provided by TVA to support the 2015 purchases include any analyses of historical usage to determine TVA's FWA needs. In addition, the two justifications given were not consistent with how the aircraft have been used since the aircraft were purchased.

The purchase of a jet instead of a second turboprop
has not been cost effective because, in addition to the
higher purchase price for the jet, (1) the turboprop has
a lower operating cost, and (2) the time savings for
use of the jet compared to the turboprop are negligible
based on TVA's usage.

Additionally, (1) TVA may not have complied with Title 31, United States Code, Section 1344(a)(1), Passenger Carrier Use; and (2) TVA did not comply with various federal regulations and TVA policies and procedures regarding use of the aircraft. Specifically:

- Cost comparison analyses prior to using the FWA were not performed.
- Business justifications prior to using the FWA were not documented.
- Authorizations prior to using the FWA were not obtained.
- Some aircraft usage appeared to be for the personal preference and convenience of TVA's Chief Executive Officer, including flights to/from his second personal residence that is located outside the TVA service area.
- Periodic reporting on the cost and use of the aircraft to the General Services Administration has been inaccurate and incomplete.

Failure to follow the federal laws and regulations
(1) prevents TVA from being able to accurately determine
the need for owning aircraft, (2) prevents TVA from
ensuring travel costs are managed effectively, and (3) may
cause reputational risks for TVA with regard to misuse (or
perceived misuse) of the aircraft.

We made recommendations to TVA management to improve (1) controls around the purchase of any future aircraft, (2) use of the FWA, and (3) compliance with all applicable laws and regulations. TVA management stated they disagreed with several of our findings regarding (1) sole source justifications, (2) cost-effectiveness calculations, and (3) compliance with laws and regulations. However, management stated the audit recommendations were generally reasonable and align with improvement initiatives already underway. TVA management also provided their plan to address each recommendation.

### TVA's Interruptible Pricing Products

TVA's Interruptible Power (IP) program implemented new products in October 2015 as part of a product redesign of TVA's demand response portfolio. The OIG audited TVA's IP program to determine if the monetary value obtained by TVA during FYs 2016 and 2017 was more than the cost of

providing interruptible pricing products. Our audit included interruptible product credits issued from October 1, 2015, through March 31, 2017, which totaled \$78.5 million.

In summary, we found the monetary value obtained by TVA during FYs 2016 and 2017 was more than the cost of providing the interruptible pricing products. However, we also found documentation related to the interruptible valuation is not maintained in a central location. We recommended TVA maintain all supporting documentation related to the annual interruptible valuation in a central location. TVA management agreed with the audit findings and recommendation and plans to take corrective action.

### Oversight of the FY 2017 Financial Statement Audit

TVA contracted with the independent public accounting firm of Ernst & Young LLP to audit TVA's consolidated balance sheet as of September 30, 2017, and the related consolidated statements of operations, comprehensive income (loss), changes in proprietary capital, and cash flows for the year then-ended. This also included the audit of TVA's internal control over financial reporting as of fiscal year-end. Additionally, the firm reviewed TVA's FY 2017 interim financial information filed on Form 10-Q with the Securities and Exchange Commission. The contract required the work be performed in accordance with *Government Auditing Standards*. Our monitoring of their work disclosed no instances where the firm did not comply, in all material respects, with these standards.

## Agreed-Upon Procedures for TVA FY 2017 Performance Measures

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

We applied five agreed-upon procedures which were requested and agreed to by TVA management solely to assist management in determining the validity of the WP

payout awards for the year ended September 30, 2017. In summary, we found:

- The FY 2017 WP goals for the enterprise-wide and Strategic Business Unit measures were properly approved. There were no change forms for FY 2017 measures.
- The FY 2017 goals (i.e., target) for the corporate multiplier measures were properly approved.
- The actual year-to-date results for the enterprise Scorecard measures agreed with the underlying support.
- The actual year-to-date results for the corporate multiplier measures agreed with the underlying support.
- The FY 2017 WP payout percentage provided by the Benchmarking and Performance Analysis organization on November 6, 2017, was mathematically accurate and agreed with the OIG's recalculations.

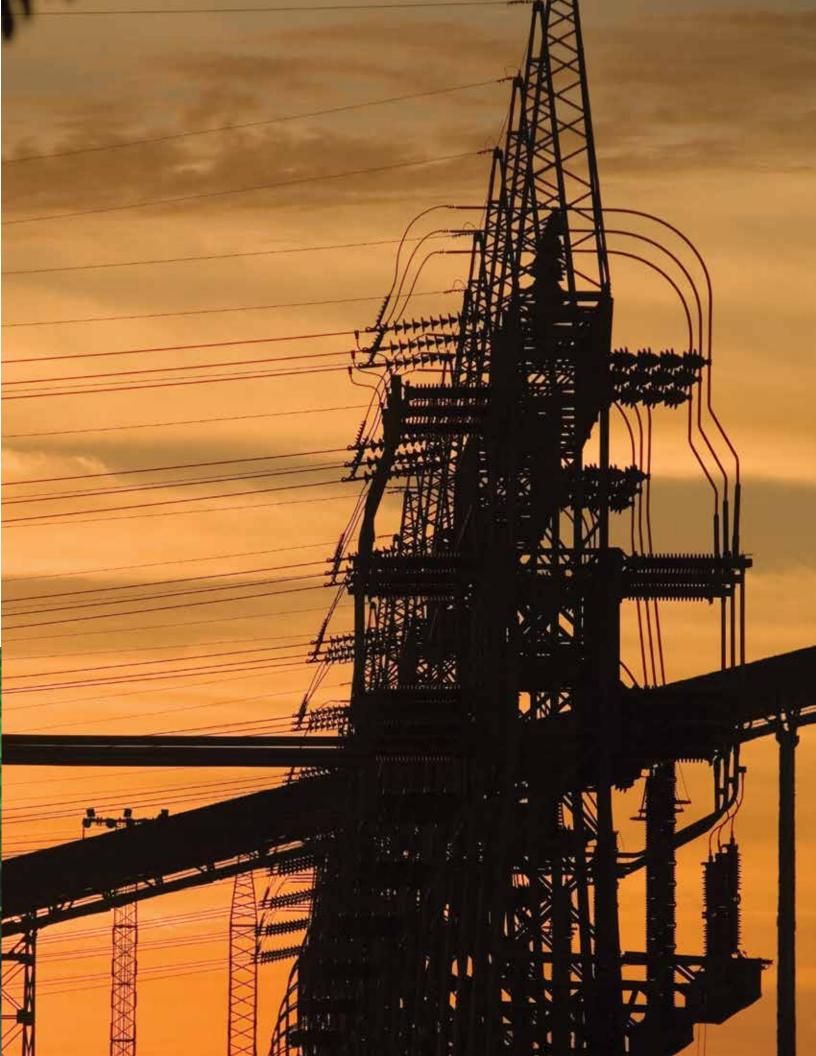
#### IT AUDITS

During this semiannual period, IT Audits completed one audit in the IT environment regarding IT security practices of TVA as required by the FISMA of 2014.

# TVA's FISMA Results Improved Under Updated Office of Management and Budget Maturity Models

The FISMA of 2014 requires each agency's IG to conduct an annual independent evaluation to determine the effectiveness of the information security program (ISP) and practice of its respective agency. Based on our analysis of the metrics and associated maturity levels defined within the FY 2017 IG FISMA metrics, we found TVA's ISP was operating in an effective manner. The FY 2017 IG FISMA metrics recommend a majority of the functions be at a maturity level 4 (managed and measurable) or higher to be considered effective. TVA had four of the five functions rated at a level 4. We recommended the Chief Information Officer, IT, perform a risk assessment of the FY 2017 IG FISMA metrics rated at a level 3 (consistently implemented) and determine actions necessary to reduce cybersecurity risk to the agency in FY 2018. TVA management agreed with our recommendation and is taking corrective action to address the issues.





## SUMMARY OF REPRESENTATIVE EVALUATIONS



#### **EVALUATIONS**

The Evaluations department completed evaluations of the (1) Corrective Action Programs (CAP) at Watts Bar, Sequoyah, and Browns Ferry Nuclear Plants; (2) process for addressing the Confirmatory Order issued by the NRC in 2009; (3) management of employee medical work restrictions and accommodations; and (4) data used to calculate fuel cost adjustments.

### Corrective Action Programs at Nuclear Plants

In March 2016, the NRC issued a Chilled Work Environment Letter (CWEL) for Watts Bar Nuclear Plant that concluded a "chilled work environment" existed in the Operations Department because of a perception that operators were not free to raise safety concerns using all available avenues without fear of retaliation. Additionally, the NRC called into question whether the CAP had been effective in identifying and resolving safety issues. The NRC defines a CAP as the system by which a utility identifies and resolves problems at a nuclear plant. During its root cause analysis of the CWEL, TVA acknowledged a weakness in the administration of the CAP. As a result of the CWEL issued to TVA, we initiated evaluations to determine if the CAPs at Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants were effective in resolving concerns.

• Browns Ferry - We determined reinforcement is needed on the importance of addressing CAP condition reports¹ (CRs) in an effective and timely manner. Specifically, we determined some CRs classified as CAP were not resolved effectively because a corrective action did not adequately address a condition, and some actions were not completed by scheduled finish dates. In addition, we identified a CR that was inappropriately closed because a corrective action stated an employee completed a training course that was never taken. We also identified areas for improvement related to the classification of CRs, CAP education and training,

- and the routing of anonymous CRs to appropriate personnel.
- Sequoyah We determined the Sequoyah CAP was generally effective in resolving employee concerns during calendar years 2015 and 2016. Specifically, we determined CRs classified as CAP were addressed effectively and in a timely manner. However, we identified areas for improvement related to the classification of CRs, routing and documentation of anonymous CRs, and CAP training.
- Watts Bar We determined TVA took actions to address anonymous CAP CRs in a timely manner.
   Specifically, we found for 22 of the 25 CAP CRs tested, the actions were completed within a reasonable time frame. The remaining three CAP CRs were appropriately closed to another CR that was previously initiated for the same concern and is scheduled for completion in May 2018.
   However, we did identify areas for improvement related to (1) routing of handwritten, anonymous CRs and (2) documenting that CRs are routed to the appropriate personnel.

In response to our individual reports, TVA management generally agreed with our findings and recommendations and provided actions taken or planned to address our recommendations. However, TVA management did not agree with our recommendation to change their review process because their process was consistent with industry practice and provides acceptable results.

## Addressing NRC's 2009 Confirmatory Order

In 2009, the NRC issued a Confirmatory Order (CO) to TVA based on the results of two NRC investigations conducted at Browns Ferry Nuclear Plant in 2005 and 2007. The CO documented TVA's commitments to the NRC as part of a settlement agreement as the result of NRC investigations in 2005 and 2007.

<sup>&</sup>lt;sup>1</sup> A CR is a form used to document evaluation and resolution of CAP and non-CAP issues. The CR is considered within the scope of CAP if the issue potentially affects structures, systems, components or programmatic elements that are safety-related, quality-related, or related to other key elements such as design, licensing, regulated events, and nuclear safety culture. All other issues are considered non-CAP.

In March 2016, the NRC issued a CWEL to Watts Bar Nuclear Plant as a result of an investigation that concluded that a chilled work environment existed in the Operations Department because of a perception that operators were not free to raise safety concerns using all available avenues without a fear of retaliation. In response to the CWEL, TVA assessed the actions taken in response to the 2009 CO and determined that not all of the actions had been implemented effectively. As a result of the ineffective implementation, we initiated a review of the process TVA used to address the 2009 CO.

We concluded there was a weakness in the approach that TVA followed for addressing the 2009 CO. TVA did not have a formal process or procedure directly related to how a CO issued by the NRC should be addressed. TVA's approach did not assign accountability or provide oversight to govern the implementation and continued execution for ongoing actions. A potential contributing cause was TVA's intent to address the underlying issue only and not to prevent recurrence.

TVA management agreed with our recommendations and provided actions taken or planned to address our recommendations.

## Management of Employee Work Restrictions and Accommodations

Due to the importance of the safety of TVA employees, we evaluated the effectiveness of TVA's management of

employee medical work restrictions and accommodations. The scope of our evaluation included all open TVA employee medical work restrictions as of October 23, 2017.

We determined there were gaps in the management of employee medical work restrictions and accommodations which resulted in TVA's medical case management (MCM) process being ineffective. Specifically, we determined (1) TVA's MCM process was not consistently followed, including (a) restrictions and accommodations were not managed in accordance with TVA's MCM procedures, (b) time limits of work assignment forms and follow-ups were not consistently met, and (c) a monthly constraint review process was not consistently performed; and (2) some line managers were unaware of the restrictions placed on their employees. We also identified other areas for improvement related to the software TVA uses to track medical work restrictions and accommodations, and training.

TVA management generally agreed with our findings and provided actions taken or planned to address our recommendations.

## Data Used to Calculate Fuel Cost Adjustments

TVA's largest single expense, fuel and purchased power cost, can be volatile from month-to-month. Since these costs can fluctuate significantly with changes in weather and shifts in supply and demand, TVA recovers these costs through the FCA rate charged to its customers. These



charges represent approximately one-third of TVA's total wholesale rate and include the costs of fuel (i.e., nuclear, coal, oil, natural gas) used in TVA's generating plants and the cost of purchased power. The FCA is calculated monthly according to the formula set by TVA's Board.

Due to the importance of correctly calculating the FCA, as well as findings from a prior OIG evaluation, we performed an evaluation of the actual sales and expense data used in TVA's FCA calculations. Our objective was to determine whether TVA was using the appropriate data to calculate the FCA.

We determined TVA was not using the appropriate sales data to calculate the FCA due to (1) inaccurate unbilled energy sales, (2) the misclassification of sales made to small direct-served customers, and (3) inaccurate hourly energy loads. In addition to the errors identified, we also determined the FCA process could be improved to reduce the risk of errors in the FCA. Specifically, the FCA process is reliant on many hand offs, manual calculations, queries, and complex spreadsheets. Further heightening the risk of error, we found TVA's FCA process was not documented. TVA management agreed with our recommendations and provided actions taken or planned to address our recommendations.

### ORGANIZATIONAL EFFECTIVENESS

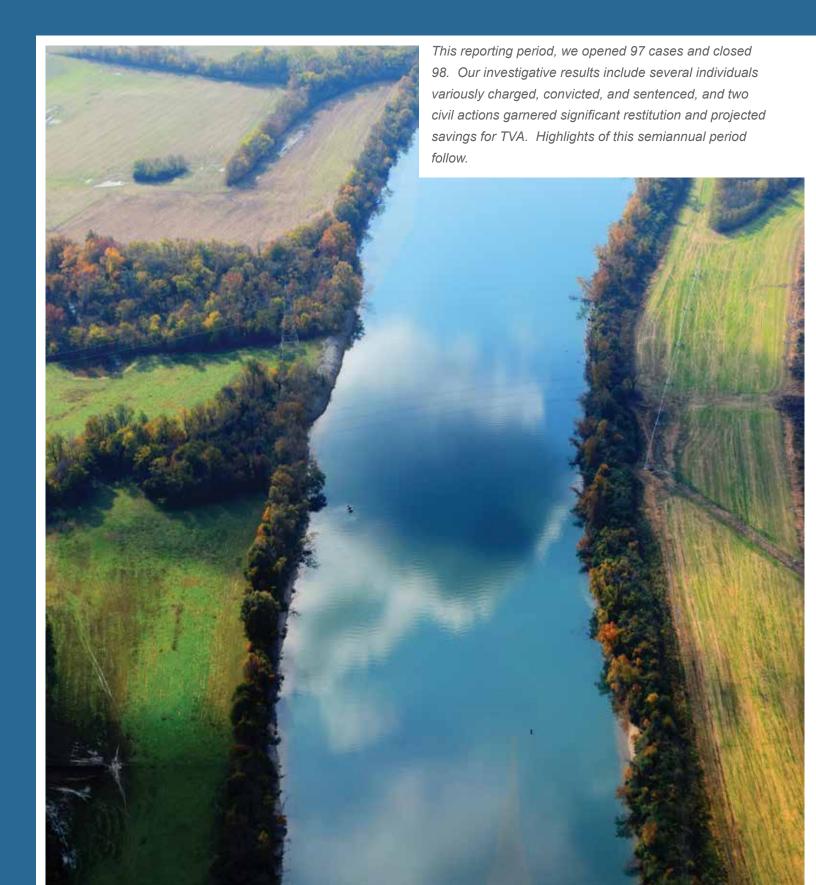
During this semiannual reporting period, the Organizational Effectiveness group completed an evaluation of the

Chief Human Resources Office (CHRO). TVA's CHRO is responsible for "fostering an environment that enables all employees to contribute at optimum level through connections to each other and to TVA's mission." The CHRO is comprised of five business units including: (1) Human Resources Business Office and Ombudsman; (2) Learning, Growth, and Management; (3) Talent Acquisition and Diversity; (4) Compensation and Benefits; and (5) Human Resources. We issued separate reports for each of the business units during the prior semiannual period. The results of those evaluations were used to formulate observations issued in a capstone report during this period.

We identified strengths within the CHRO and its business units related to organizational alignment, development of the CHRO strategy, and management support within the business units. We also identified risks and made recommendations related to (1) collaboration across the CHRO, (2) relationship and inclusion issues, (3) the potential for noncompliance with TVA's Code of Conduct, and (4) the potential for ineffective CHRO measures. TVA management agreed with certain elements of the recommendations; however, they did not specifically address parts including (1) monitoring compliance with laws and regulations and (2) usage of existing metrics or development of metrics to gauge effectiveness and identify risks.



## SUMMARY OF REPRESENTATIVE INVESTIGATIONS



#### Former TVA Senior Manager Sentenced for Role in Sharing Prohibited Nuclear Information with the People's Republic of China

On April 29, 2016, the U.S. Attorney's Office for the Eastern District of Tennessee unsealed the conviction of Ching Ning Guey, former TVA Senior Manager, Probabilistic Risk Assessment, who pled guilty to one count of unlawful participation in the production and development of special nuclear material outside the United States. Mr. Guey's guilty plea acknowledged he provided prohibited Electric Power Research Institute (EPRI) documentation to the People's Republic of China that he obtained during the course of his official TVA duties.

Mr. Guey's TVA position afforded him access to information involving the development and production of special nuclear material, as defined by statute, and his guilty plea stipulated he had received warnings and guidance

on the restrictions and controls pertaining to sharing this information with restricted countries.

The illegal activity took place during Mr. Guey's four-year TVA employment (2010-2014) and included traveling to China at the request of a Chinese, state-owned nuclear power company during November 2013. The Chinese government invited him to a technology exchange, where he expected to be paid to provide information. Once there, he illegally provided to the Chinese government three EPRI reports, all certified as containing information related to the development and use of technology associated with light and heavy water reactors.

On February 8, 2018, Mr. Guey was sentenced in federal court to three years of probation, to include 100 hours of community service. The investigation of Mr. Guey was conducted by TVA OIG, the Federal Bureau of Investigation (FBI), the Department of Energy (DOE) National Nuclear Security Administration, and Immigration and Customs



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Enforcement Homeland Security Investigations, with additional assistance from other agencies.

#### Valley Utility Supervisor Sentenced for \$2.9 Million Embezzlement

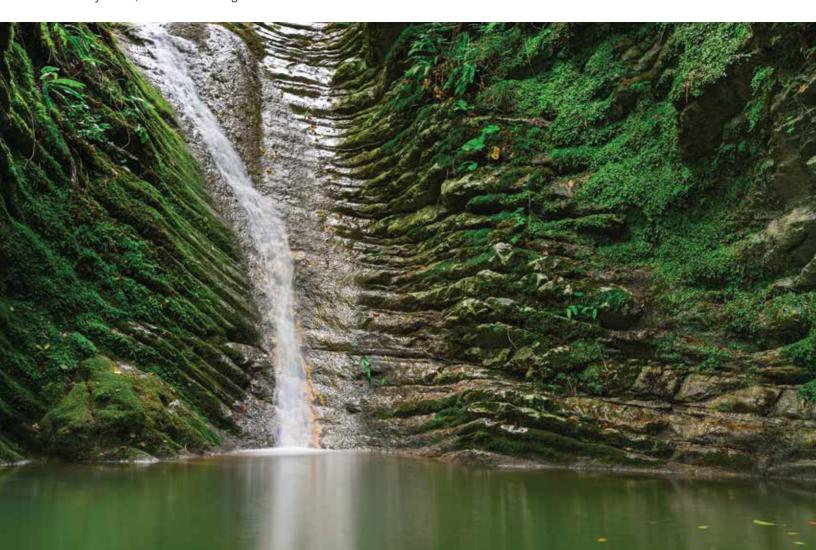
As previously reported, on August 9, 2017, the U.S. Attorney's Office, Northern District of Alabama, filed an Information charging that John Pearson Willis, III, former Members Services Supervisor of Arab (Alabama) Electric Cooperative (Arab Electric), stole, embezzled, and intentionally misapplied in excess of \$5,000 under the care, custody, and control of the Arab Electric. Mr. Willis was the primary fiduciary officer beginning when he assumed his role at Arab Electric in 1988 until February 2017. In that role, he not only had sole access to the accounting system but to daily cash deposits as well.

On September 25, 2017, Mr. Willis pled guilty to the Information. His plea stipulates that from 1999 until February 2017, he removed large amounts of cash

from utility customers' payments and manipulated the computer-based accounting system, of which he maintained complete autonomy, to conceal the thefts. The government and Mr. Willis agreed the amount he embezzled over the period of the scheme was \$2,988,384.81.

Mr. Willis was sentenced January 10, 2018, to 30 months of imprisonment, followed by three years of probation, and he was ordered to pay \$2,988,384.81 restitution to Arab Electric. He was also ordered to forfeit \$2,988,384.81 to the United States under an order entered separately by the court. The forfeiture is punitive and is in addition to the restitution to be paid to Arab Electric.

TVA is the sole source of power for Arab Electric. Arab Electric is in long-term contract with TVA for the purchase of this power, which is subsequently distributed to cooperative members in the Arab service area. This case was investigated by TVA OIG, the U.S. Secret Service, and the Alabama State Bureau of Investigation.



#### Civil Settlements Reap More Than \$1.5 Million Recovered for TVA and Projected Savings Exceeding \$2 Million

During this reporting period, two civil settlements were finalized based on TVA OIG investigative activity. Both revolved around the Federal Employees' Compensation Act (FECA). FECA provides workers' compensation benefits for federal employees. Though FECA is administered by the U.S. Department of Labor (DOL), the costs for each claimant are borne by his/her employer at the time of illness or injury. The settlements described below are neither an admission of liability by the defendants nor a concession by the United States that its claims are not well-founded.

In the first matter, the United States, on behalf of the DOL Office of Workers' Compensation Programs (OWCP), reached a civil settlement on December 19, 2017, with a Valley hearing-aid provider, resulting in the provider's agreement to pay the United States \$241,328, which will be disbursed to TVA.

During an approximate four-year period, the provider supplied hearing aids to TVA employees under DOL OWCP's FECA program. The United States contends this provider billed the maximum reimbursable rate for each replacement hearing aid, which was in excess of the fee charged to the general public for the same device. DOL OWCP regulations provide that "where a provider's fee for a particular service or procedure is lower to the general public than as provided by the schedule of maximum allowable charges, the provider shall bill at the lower rate."

In addition to the monetary award, the agreement stipulates that the provider will no longer charge unallowable costs directly or indirectly to any contracts with the United States or any state Medicaid program. TVA is projected to realize a savings of \$388,867 during the next five years, based on the provider's agreement to cease its overbilling practices. TVA OIG conducted this case with assistance from DOL OIG.

In the second matter, on February 6, 2018, the U.S. Attorney's Office, Western District of Kentucky, announced a \$2,791,758 settlement with a Kentucky ear, nose, and throat practitioner, his spouse, and the practice itself, to resolve claims the otolaryngologist improperly billed DOL under FECA for audiological services and hearing aids.

The United States contended the physician knowingly submitted false claims for reimbursement under FECA that indicated audiological tests were conducted by licensed/certified personnel when the tests were performed by persons lacking credentials, and/or test results were altered to enable some claimants to appear to have ratable hearing losses who did not.

According to the settlement agreement, the physician paid \$2.79 million to settle the claims arising from the alleged misconduct. TVA is to receive \$1,299,683 of this amount. In addition, the physician agreed to be permanently excluded from future participation in the FECA program. Based on this provider's exclusion from the program, TVA is projected to save \$1,679,195 over the next five years.

This matter arose as a complaint for monetary damages under the qui tam provisions of the federal False Claims Act (Act). The Act allows private persons to file suit for violations of the Act on behalf of the government in what is known as a "qui tam" action; the person bringing the action is referred to as a "relator." The relator, a former employee of the physician, received \$474,599 as part of this settlement. This investigation was conducted by the U.S. Attorney's Office, Western District of Kentucky, and the OIGs of DOL, the Department of Justice, and TVA.

## Two Sentenced in TVA Credit Card Fraud Investigation

As previously reported, on August 29, 2017, in the Northern District of Alabama, Patrick Dale Brown, former TVA Business Support Representative, pled guilty to embezzlement. Mr. Brown, a long-term TVA employee tasked with purchasing for his work group, admittedly used TVA resources available to him in this position for the personal benefit of himself and his family. He pled guilty to

obtaining more than \$70,000 by fraudulent means between February 12, 2016, and January 20, 2017.

Mr. Brown acknowledged he utilized TVA purchasing cards—his own and a coworker's—on numerous occasions, to make personal purchases, including power tools, home decorations, cleaning supplies, drones, cell phone bills of family members, brand-name sporting goods, family hunting apparel, an Apple watch, children's toys, and a trailer. Approximately \$11,500 of the embezzled amount was used to purchase prepaid Visa cards. Mr. Brown additionally admitted using his TVA travel card to obtain a rental car and hotel rooms for personal use.

Approximately \$38,000 of Mr. Brown's purchases consisted of heating, ventilation, and air conditioning (HVAC) units. Mr. Brown admitted that he and his brother-in-law, Joel Patrick Moore, installed the HVAC units into private residences and businesses for profit. He also indicated his clients were unaware the units were illegally obtained.

During the prior reporting period, Mr. Moore pled guilty to providing a false statement to TVA OIG agents in this matter. He was sentenced January 12, 2018, to one year of probation. Mr. Brown, sentenced on February 15, 2018, was ordered to pay \$71,915 restitution to TVA, which he has done, and sentenced to four months of imprisonment, followed by three years of probation. This investigation was led by the TVA OIG with assistance from TVA Police and Emergency Management.

# Former Wastewater Treatment Plant Operator Charged with Dumping Raw Sewage into the Tennessee Valley Watershed

On November 14, 2017, Kenneth W. Rhea was federally charged in the Eastern District of Tennessee with long-term violations of the Clean Water Act (CWA). The 25-count indictment, which was sealed prior to November 30, 2017, was issued based on Mr. Rhea's alleged activity while serving as operator of the Sneedville (Tennessee) Sewage Treatment Plant.

The Sneedville plant was designed to accept influent raw sewage, purify the sewage water, and allow the purified water to flow into the Clinch River. The first count of the indictment charges Mr. Rhea with knowingly discharging untreated sewage into the river throughout the December 2012 – May 2014 time frame. The remaining 24 counts charge him with falsifying specific Discharge Monitoring and Monthly Operating reports on which he attested CWA requirements had been met, as required under the CWA and administered through the Tennessee Department of Environment and Conservation. Mr. Rhea awaits trial.

This case was worked with the U.S. Environmental Protection Agency Criminal Investigation Division (EPA CID).

#### Owner and Employee of Metal Plating Company Sentenced in Environmental Matter

On October 17, 2017, Phillip Michael Huddleston pled guilty to violating the federal Resource Conservation and Recovery Act (RCRA) at Protech Metal Finishing, LLC, a metal-plating facility he operated and co-owned in Vonore, Tennessee. His guilty plea stipulates he knowingly stored hazardous waste, variously categorized under RCRA as corrosive and toxic, without a permit from the Tennessee Department of Environment and Conservation, as required under RCRA, while knowing the waste to be potentially harmful to others or the environment.

Earlier, on October 2, 2017, John Thomas Hatfield, Protech's production manager, pled guilty to being an accessory after-the-fact to Protech's illegal storage of hazardous waste. To hinder environmental inspectors' investigation of Protech's compliance with RCRA, Mr. Hatfield represented that containers of hazardous waste were accurately labeled when he knew they were not.

On January 8 and 10, 2018, respectively, Mr. Huddleston was sentenced to three years of probation, to include six months of home detention, and Mr. Hatfield was sentenced to two years of probation.

TVA OIG's investigation of this matter was precipitated by an allegation of chemical dumping into the Tennessee River Watershed, possibly by Protech. Shortly after investigation began, a search warrant was executed at Protech's plant and offices. Following the search warrant's execution, there has been no further indication continued dumping has occurred.

Agencies involved in this investigation additionally include the FBI, EPA CID, Internal Revenue Service CID, U.S. Army CID, DOE OIG, and the Defense Criminal Investigative Service.

#### Former Contractor Pleads Guilty to Making False Statements to Obtain Temporary Living Allowance

On December 18, 2017, Timothy G. Krach, a former Bechtel Power Corporation contractor employee at Watts Bar Nuclear Plant (WBN), pled guilty to a federal one-count Information charging him with making false claims to receive temporary living allowance (TLA) payments from TVA.

Mr. Krach's guilty plea stipulates that from October 2009 to April 2016, he worked at the WBN Bechtel project in Spring City, Tennessee. During that time, he applied for and received TLA from TVA based on his maintaining an out-of-state permanent residence outside a 60-mile radius of his WBN job location. Investigation revealed Mr. Krach attested to TVA he maintained permanent addresses, at various times, in Texas or Kentucky during his WBN assignment.

During the December 2012 time frame, however, Mr. Krach established a permanent residence with his family in Spring City, making him local to WBN and no longer eligible for TLA benefits. Soon after his family's relocation to Tennessee, however, Mr. Krach submitted a claim for TLA, based on the false claim he maintained a permanent residence in Fort Worth, Texas. Through July 2015, Mr. Krach continued to attest on TVA Certification Required for Reimbursement of Temporary Living

Allowance forms that he maintained a permanent residence in Texas to continue receiving TLA to which he was not entitled. Mr. Krach awaits sentencing. A permanent employment restriction has been placed in his TVA record.

#### Sentencing in Temporary Living Allowance Fraud Investigation

On October 2, 2017, Craig A. Causer pled guilty to a federal one-count Information charging him with making false claims to receive TLA to which he was not entitled. As Managed Task Superintendent/Field Supervisor for Bechtel Power Corporation at WBN, Mr. Causer would have been eligible to receive TLA if he maintained a permanent residence outside the 60-mile radius of his duty station in Spring City, Tennessee. Though investigation revealed Mr. Causer variously claimed permanent residences in Florida and Illinois, his plea agreement stipulates that during an approximate three-year period, Mr. Causer filed requests for TLA reimbursement certifying his eligibility for the funds, but he had moved his permanent residence local to his duty station before submitting the first claim.

Mr. Causer was sentenced January 29, 2018. He is to serve four years of probation, beginning with six months of home detention. He was ordered to pay \$75,941 to TVA, which he has done, as restitution for the TLA he fraudulently received.

## LEGISLATION AND REGULATIONS



During this reporting period, TVA OIG has been tracking:

#### H.R. 1625 – "Clarifying Lawful Overseas Use of Data Act" (Cloud Act)

H.R. 1625 was enacted in February, amending Title 18 (the Stored Communications Act) by creating a new section to clarify that "A provider of electronic communication service or remote computing service shall comply with the obligations of this chapter [Chapter 121 of Title 18] to preserve, backup, or disclose the contents of a wire or electronic communication and any record or other information pertaining to a customer or subscriber within such provider's possession, custody, or control, regardless of whether such communication, record, or other information is located within or outside of the United States." The legislation addresses concerns that legitimate law enforcement activities could be hindered if communications created and received in the United States were simply stored on servers located internationally.

#### S. 2178 – "Inspector General Recommendation Transparency Recommendation Act"

S. 2178 was reported out by the Homeland Security and Government Affairs Committee in February. In general, the bill promotes increased reporting regarding open IG recommendations by having such information be made available by IGs on a Council of the Inspectors General on Integrity and Efficiency (CIGIE) Web site. It requires

a short description of each open recommendation, the title of the report that the recommendations pertain to, and the assigned number of the recommendation within the report, among other details. The bill defines open recommendations to include circumstances where corrective action has not been completed by the agency during the one-year period following the date the recommendation was issued. The information would also be included in the semiannual reports to Congress. IGs would no longer have to report on (1) comments of the IG relating to why the recommendation remains open, or (2) responses from the agency relating to why the recommendation remains open. CIGIE is working with Congress as appropriate.

#### H.R. 4917 - "Inspector General Subpoena Authority Act"

H.R. 4917 was voted out of the House Oversight and Government Reform Committee in February. The bill would amend the IG Act to provide IGs with testimonial subpoena authority, reflecting the current scope of IG documentary subpoena authority found in IG Act Section 6. It would authorize Inspectors General to issue testimonial subpoenas for contractors, grant recipients, and former federal employees. The bill includes procedural and notification steps prior to issuing a subpoena under this authority.

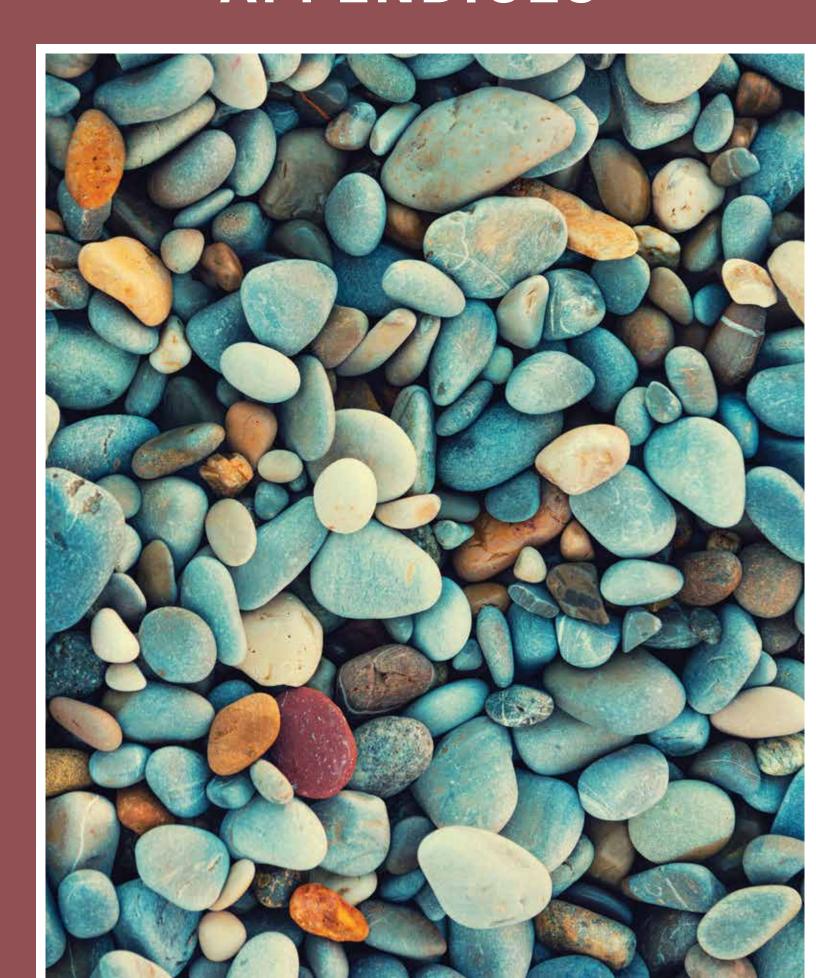


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## APPENDICES



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

REPORTING	REQUIREMENT	PAGE OR APPENDIX
Section 4(a)(2)	Review of legislation and regulations	32-33
Section 5(a)(1)	Significant problems, abuses, and deficiencies	16-31
Section 5(a)(2)	Recommendations with respect to significant problems, abuses, and deficiencies	16-31
Section 5(a)(3)	Recommendations described in previous semiannual reports on which corrective action has not been completed	Appendix 4
Section 5(a)(4)	Matters referred to prosecutive authorities and the prosecutions and convictions which have resulted	Appendix 5
Section 5(a)(5) and 6(b)(2)	Summary of instances where information was refused	None
Section 5(a)(6)	Listing of audit and evaluation reports	Appendix 2
Section 5(a)(7)	Summary of particularly significant reports	16-31
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 (a) no management decision had been made; (b) no management comment was received within 60 days of issuing the draft report; and (c) there were any unimplemented recommendations, including the aggregate potential cost savings of those recommendations, at the end of the reporting period <sup>1</sup>	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	Not Applicable
Section 5(a)(14)	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 10
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

<sup>&</sup>lt;sup>1</sup> We had no open audit or evaluation reports that met all of these requirements. However, Appendix 4 includes a list of all audits issued in previous semiannual periods on which corrective action has not been completed.

# INDEX OF REPORTING REQUIREMENTS UNDER THE INSPECTOR GENERAL ACT (CONTINUED)

REPORTING	REQUIREMENT	PAGE OR APPENDIX
Section 5(a)(16)	List of any 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 fully implemented	None
Section 5(a)(17)	Statistical table showing the total number during the reporting period of (a) investigative reports issued, (b) persons referred to the Department of Justice for criminal prosecution, (c) persons referred to state and local prosecuting authorities for criminal prosecution, and (d) indictments and criminal informations resulting from any prior referral to prosecuting authorities	Appendix 5
Section 5(a)(18)	Metrics used to develop the data in the statistical table pursuant to Section 5(a)(17)	Appendix 5
Section 5(a)(19)	Investigations in which allegations of misconduct involving a senior government employee² were substantiated	Appendix 6
Section 5(a)(20)	Instances of whistleblower retaliation, information about the official found to have engaged in retaliation, and consequences imposed, if any, to hold the official accountable	None
Section 5(a)(21)	Attempts to interfere with the independence of the Office of the Inspector General	None
Section 5(a)(22)(A)	Audit or evaluation that was closed and not disclosed to the public	None
Section 5(a)(22)(B)	Investigation involving a senior government employee that was closed and not disclosed to the public	Appendix 7

<sup>&</sup>lt;sup>2</sup> Pursuant to Section 5(b)(7)(A) of the IG Act, as amended, senior government employee is defined as an officer or employee whose rate of basic pay is equal to or greater than 120 percent of the minimum rate of basic pay payable for GS-15 of the General Schedule. This equates to a rate of basic pay for fiscal year 2018 equal to or greater than \$126,148.

#### OIG AUDIT REPORTS • ISSUED DURING THE SIX-MONTH PERIOD ENDED MARCH 31, 2018

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
CONTRACT AUDITS	i e e e e e e e e e e e e e e e e e e e			
2017-15499 10/27/2017	Proposal for Civil Projects and Coal Combustion Residual Program Management	\$0	\$0	\$9,618,212
2015-15319 11/17/2017	Bechtel Power Corporation - Review of Craft Labor - Contract No. 65419	6,828,935	0	0
2017-15504 12/18/2017	Proposal for Civil Projects and Coal Combustion Residual Program Management	0	0	3,747,000
2017-15493 12/22/2017	Proposal for Civil Projects and Coal Combustion Residual Program Management	0	0	1,972,982
2017-15501 02/27/2018	Proposal for Civil Projects and Coal Combustion Residual Program Management	0	0	5,233,000
2017-15491 03/21/2018	Proposal for Civil Projects and Coal Combustion Residual Program Management	0	0	19,067,533
FINANCIAL AND OF	PERATIONAL AUDITS			
2018-15522 11/08/2017	Agreed-Upon Procedures for TVA Fiscal Year 2017 Performance Measures	\$0	\$0	\$0
2017-15478 12/07/2017	TVA Interruptible Products	0	0	0
2017-15470 03/29/2018	TVA Fixed-Wing Aircraft	0	0	0
INFORMATION TEC	HNOLOGY AUDITS			
2017-15489 12/21/2017	2017 Federal Information Security Modernization Act	\$0	\$0	\$0
TOTAL AUDITS (10)		\$6,828,935	\$0	\$39,638,727

# OIG EVALUATION REPORTS • ISSUED DURING THE SIX-MONTH PERIOD ENDED MARCH 31, 2018 (CONTINUED)

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
2017-15461 11/08/2017	Watts Bar Nuclear Plant Corrective Action Program	\$0	\$0	\$0
2017-15464 12/19/2017	Sequoyah Nuclear Plant Corrective Action Program	0	0	0
2017-15448 01/10/2018	TVA Nuclear's Process for Addressing the Nuclear Regulatory Commission's 2009 Confirmatory Order	0	0	0
2017-15465 01/22/2018	Browns Ferry Nuclear Plant Corrective Action Program	0	0	0
2017-15490 03/28/2018	Data Used to Calculate Fuel Cost Adjustments	0	0	0
2017-15510 03/28/2018	Management of Employee Medical Work Restrictions and Accommodations	0	0	0
ORGANIZATIONAL E	FFECTIVENESS			
2016-15445 12/21/2017	Organizational Effectiveness - Chief Human Resources Office	0	0	0
TOTAL EVALUATIONS (7)		\$0	\$0	\$0

Note: A summary of or link to the full report may be found on the OIG's Web site at www.oig.tva.gov.

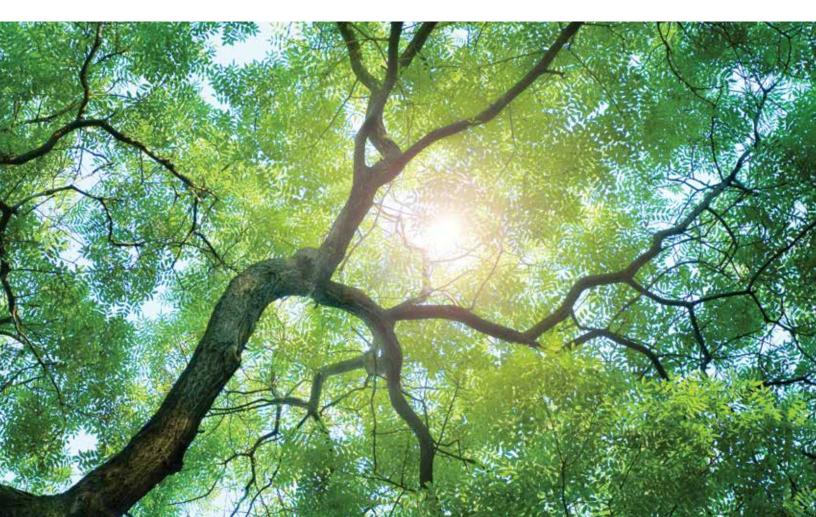


TABLE I • TOTAL QUESTIONED AND UNSUPPORTED COSTS • AUDITS

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	1	\$6,828,935	\$0
Subtotal (A+B)	1	\$6,828,935	\$0
C. For which a management decision was made during the reporting period	1	\$6,828,935	\$0
1. Dollar value of disallowed costs	1	\$6,828,935	\$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

TABLE I • TOTAL QUESTIONED AND UNSUPPORTED COSTS • EVALUATIONS

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

# TABLE II • FUNDS TO BE PUT TO BETTER USE • AUDITS (CONTINUED)

Audit Reports	Number of Reports	Funds To Be Put To Better Use
A. For which no management decision has been made by the commencement of the period	2	\$17,680,299
B. Which were issued during the reporting period	5	\$39,638,727
Subtotal (A+B)	7	\$57,319,026
C. For which a management decision was made during the reporting period	5	\$33,018,493
1. Dollar value of recommendations agreed to by management	5	\$33,018,493
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	2	\$24,300,533

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

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

# RECOMMENDATIONS INCLUDED IN A PREVIOUS SEMIANNUAL REPORT AND AWAITING IMPLEMENTATION

At the end of the semiannual period, final corrective action was not complete on 71 recommendations associated with 11 audit and 11 evaluation reports issued in a prior period. Presented below for each audit and evaluation are the report number, date, and title, along with a brief description of action management agreed to take to resolve the open recommendation, including the date management expects to complete final action.

Audit Report Number and Date	Report Title and Actions Agreed to by Management to Resolve Recommendations
2013-14959	Tennessee Valley Authority (TVA) Environmental Risk Management
08/07/2014	TVA agreed to update TVA's Environmental Management System to better describe environmental review processes and responsibilities. Management expects to complete final action by September 28, 2018.
	Maximo 7.5 Upgrade
2014-15062 09/10/2015	TVA agreed to engage the business units to ensure ownership of stranded documents and establish a process to place documents in appropriate folders within the published Enterprise Content Management system during content migration. Management expects to complete final action by June 29, 2018.
	Information Technology (IT) Organizational Effectiveness - Enterprise Solutions Delivery
2014-15063-06 02/25/2016	TVA agreed to continue Enterprise Data Warehouse IT 1,000 Days to Success efforts that includes (1) completing architectural framework, processes, and standards; (2) updating roadmaps and implementing prioritized initiatives; (3) implementing enterprise metadata framework; and (4) ensuring data quality through continued incorporation of data quality tools. TVA expects to complete final action by September 20, 2018.
	Audit of Non-Competed Contracts
2016-15408 05/23/2017	TVA agreed to self-assess 10-20 percent of contracts on an annual basis to ensure status classifications are accurate; evaluate the competition status classifications and determine opportunities to streamline/eliminate redundancies where possible; ensure the retention guidelines are clear; and ensure all sourcing managers and contract managers understand and reinforce the use of the contract checklist. TVA expects to complete final action by May 23, 2018.
	ScottMadden, Inc.
2016-15441 06/12/2017	TVA agreed to implement contract line pricing in Maximo and IQNavigator, which will prevent purchase orders and contract work authorizations from being issued without the approved pricing contained in the contract; and require field invoice approvers to retake a field invoice approver training course. TVA expects to complete final action by June 12, 2018.
2017-15450	TVA Internet Accessible Web Sites
08/16/2017	TVA agreed to validate and remediate identified vulnerabilities. TVA expects to complete final action by July 21, 2018.
	Williams Plant Services, LLC - Contract No. 4067
2015-15343-02 08/28/2017	TVA agreed to recover overbilled (1) subcontractor costs, (2) labor and related costs, (3) temporary living allowance costs, (4) fee, and (5) fitness for duty and material and supplies cost. Management also agreed to recover any discount credits due to TVA and implement controls for future work with Williams Plant Services, LLC, to ensure that the contract contains all updated and approved rate schedules. TVA expects to complete final action by August 28, 2018.
2017-15452	Gas Secure Room
08/28/2017	TVA agreed to bring all workstations and servers up to supported operating systems, current supported patch levels, and established IT baselines. TVA expects to complete final action by May 31, 2018.
	Proposal for Coal Combustion Product Handling and Maintenance
2017-15492 09/11/2017	TVA agreed to negotiate reductions to equipment rates, overhead rate, and time and material rates. TVA also agreed to ensure they receive applicable tax exemptions and to enforce compliance with the request for proposal's cost reimbursement provisions. TVA expects to complete final action by September 11, 2018.

# RECOMMENDATIONS INCLUDED IN A PREVIOUS SEMIANNUAL REPORT AND AWAITING IMPLEMENTATION (CONTINUED)

Audit Report Number and Date	Report Title and Actions Agreed to by Management to Resolve Recommendations
2017-15455 09/19/2017	Surplus and Disposal of IT Equipment  TVA management agreed to implement new Surplus Work Instructions and supplemental Technical Instructions that will (1) include a process to ensure proper asset tracking of IT equipment in the inventory system throughout the surplus process, (2) include general guidelines for processing surplus IT equipment, (3) define specific surplus processes for each type of device capable of storing data, and (4) include a process for classification of surplus equipment. TVA expects to complete final action by June 20, 2018.
2017-15494 09/29/2017	Proposal for Coal Combustion Product Handling and Maintenance  TVA agreed to negotiate reductions to equipment, labor, overhead, and small tools costs. TVA also agreed to (1) ensure they receive the benefit of applicable tax exemptions, (2) require corrections to craft labor rate sheets, (3) address errors in unit rate calculations, (4) negotiate updates to noncraft wage rates, and (5) obtain a rate sheet for noncraft employees with limited or no benefits. TVA expects to complete final action by September 29, 2018.



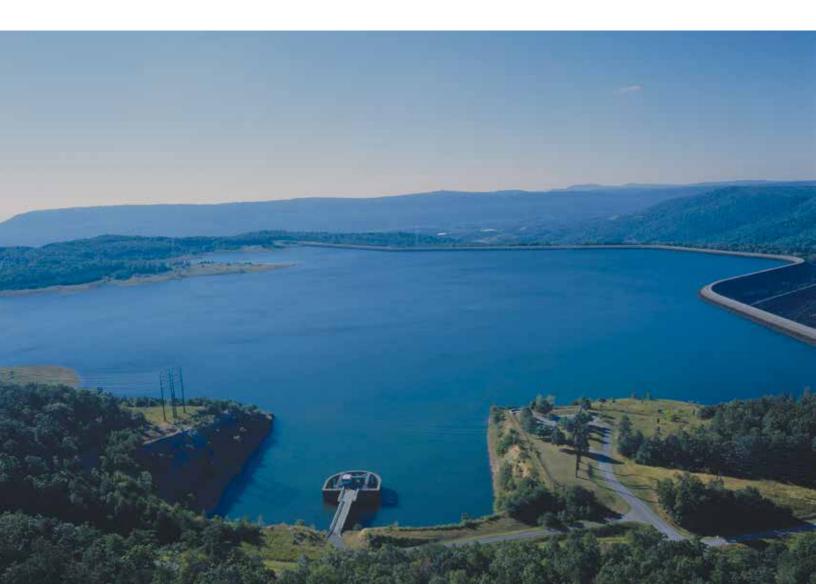
Paradise Fossil Plant

# RECOMMENDATIONS INCLUDED IN A PREVIOUS SEMIANNUAL REPORT AND AWAITING IMPLEMENTATION (CONTINUED)

Evaluation Report Number and Date	Report Title and Actions Agreed to by Management to Resolve Recommendations
	Follow-Up Review of Coal Fire Protection
2014-15216 09/29/2014	TVA agreed to revise FPG-SPP-18.123, Fire Protection Assessment Procedure, to include a new rating calculation and process for sharing assessment data with Power Operations senior leadership. TVA expects to complete final action by August 1, 2018.
	Hydro Generation Fire Protection
2015-15294 07/24/2015	TVA agreed to develop a Standard Programs and Processes (SPP) to provide guidance for reporting, and maintain a historical record of fire protection system impairments in Hydro Generation, as well as Coal and Gas; develop an SPP for providing guidance and implementing code-required activities; perform annual facility walk downs to verify compliance with housekeeping; supersede an SPP with site specific emergency response plans; develop property risk improvement prioritization methodology to qualify and prioritize property loss control recommendations across the organization; and employ a modifier to capture the criticality of the affected plant or unit to TVA's load strategy. TVA expects to complete final action by August 1, 2018.
2016-15366	Environmental Permitting and Compliance Organizational Effectiveness
09/28/2016	TVA agreed to establish employee engagement expectation initiatives. TVA expects to complete final action by September 28, 2018.
	Organizational Effectiveness - Human Resources: Business Office
2016-15445-01 05/18/2017	TVA provided the Washington, D.C., Equal Employment Opportunity Commission (EEOC) Office documentation relative to the reporting structure for TVA Equal Opportunity Compliance department. The EEOC Office indicated a response would be provided to TVA by the end of the fiscal year 2017. TVA expected to complete final action by February 28, 2018.
	Gas Plant Preventive Maintenance
2016-15391 06/29/2017	TVA agreed to (1) identify the root cause(s) of data inaccuracies and omissions in Maximo and take action to prevent recurrence, (2) continue with maintenance basis optimization efforts to establish necessary preventive maintenance, (3) develop and implement a more programmatic approach to predictive maintenance that aligns activities with resources, and (4) provide Maximo training at each site to address site-specific training gaps and review site security roles in Maximo to ensure employees have the appropriate Work Management access. TVA expects to complete final action by September 30, 2018.
	Transmission and Power Supply Preventive Maintenance
2016-15431 07/11/2017	TVA agreed to implement use of the actual finish date to record the actual completion of the field work portion of all work order closures as they pertain to preventive maintenance activities. TVA expects to complete final action by July 11, 2018.
	Organizational Effectiveness - Supply Chain: Materials and Transportation Management
2016-15386 07/27/2017	TVA agreed to (1) develop a plan to address teamwork and trust issues; (2) develop a better understanding of the cycle time issue for processing work orders and make improvements; (3) continue identifying and communicating collaboration opportunities and sharing any changes in processes and procedures that may result; (4) ensure goals for fiscal year 2018 are clear, defined, and have a specific deliverable date; (5) continue to focus on efficiencies to be gained by leveraging inventory and analytics software; and (6) continue ongoing education of senior leadership and increased collaboration with line leadership for all business units that utilize Supply Chain Support. TVA expects to complete final action by July 27, 2018.
2016-15445-03	Organizational Effectiveness - Human Resources: Talent Acquisition & Diversity
08/23/2017	TVA agreed to update the SPP related to applying Veterans' Preference. TVA expects to complete final action by May 1, 2018.
	Transmission & Power Supply Direct Charge Materials
2016-15435 09/07/2017	TVA agreed to development of a formal process to track direct charge materials more accurately and update existing procedures and policies to reflect current business practices while incorporating process improvements. TVA expects to complete final action by September 7, 2018.

# RECOMMENDATIONS INCLUDED IN A PREVIOUS SEMIANNUAL REPORT AND AWAITING IMPLEMENTATION (CONTINUED)

Evaluation Report Number and Date	Report Title and Actions Agreed to by Management to Resolve Recommendations
	TVA Coal Plant Surplus Materials
2017-15469 09/14/2017	TVA agreed to (1) expand communications around material availability, plant inventory needs over the next three years, and guidance allowing for inventory growth if the materials can be utilized within a three year period at the receiving plant; (2) review the surplus material and consider TVA's Hartsville, Tennessee site for a limited amount of material if it is cost effective; (3) formalize the Harvesting process into an Engineering Guidance Document; (4) reinforce expectations to use retired equipment; and (5) determine the appropriate forecast usage period that determines whether materials should be designated for surplus. TVA expects to complete final action by September 14, 2018.
	Organizational Effectiveness - Human Resources: Human Resources
2016-15445-05 09/26/2017	Management stated they understood our recommendations and many had already been addressed or would be addressed through an organizational redesign. Management also stated they have increased transparency in staffing (including the selection process) by increasing communication and they will re-evaluate the approach and make necessary adjustments as they gain clarity on future roles; will continue to appropriately allocate resources through the annual business planning cycle; expect an outcome of the broader Human Resources evolution will be improved role clarity; will implement an employee feedback mechanism as part of a customer-centric approach; continue to evaluate and improve the medical case management process as needed; continue to address the grievance backlog; and promote an inclusive environment and address concerns related to promotions and assignments. TVA expects to complete final action by September 28, 2018.



#### INVESTIGATIVE REFERRALS AND PROSECUTIVE RESULTS

Referrals		
Reports Issued to TVA Management	4	
Subjects Referred to U.S. Attorneys	5	
Subjects Referred to State/Local Authorities	0	
Results		
Subjects Indicted/Informations Filed	2	
Subject Convicted	6	
Pretrial Diversion	0	
Federal Referrals Declined	4	
State/Local Referral Declined	0	

**Metrics:** Reports issued to TVA management are comprised of formal written reports and, when appropriate, e-mailed summaries conveying the findings of a completed investigation.

The number of indictments does not include sealed indictments or superseding indictments of the same individual already reported in this or a prior semiannual report.

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







#### SUBSTANTIATED INVESTIGATIONS INVOLVING SENIOR AGENCY OFFICIALS

Case No.	Summary and Disposition
25D15497	During a prior reporting period, Ching Ning Guey, former TVA Senior Manager, Probabilistic Risk Assessment, pled guilty in the Eastern District of Tennessee to one count of unlawful participation in the production and development of special nuclear material outside the United States. Mr. Guey was sentenced and our investigation closed during this reporting period. See full description on page 27.  This matter was both referred for prosecution to the U.S. Attorney's Office and accepted November 29, 2016.

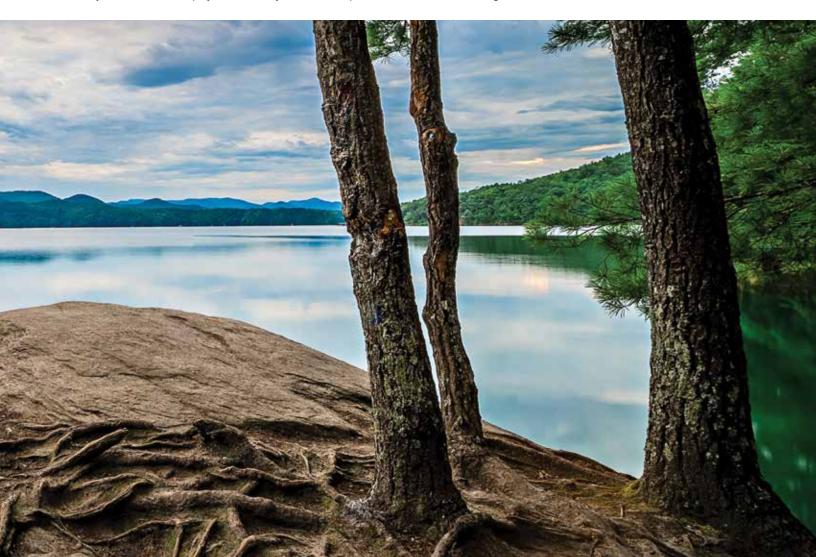
**Metrics:** This appendix describes closed, substantiated investigations involving subjects specified by the IG Empowerment Act (salaried at 120 percent of GS-15 Level One). TVA does not operate on the GS scale, so all persons in this salary range, though included here, are not necessarily executive-level employees. Corollary to this, not all persons with substantial managerial duties are included here, based on their salaries.



#### PREVIOUSLY UNDISCLOSED INVESTIGATIONS INVOLVING SENIOR AGENCY OFFICIALS

Case No.	Allegation and Disposition
01D16809	When repairs were needed, a nuclear maintenance director engaged in a conflict of interest by hiring a company that employs his brother. Unsubstantiated.
01H16643	A plant manager receives kickbacks from a TVA vendor. Unsubstantiated.
01H16780	A construction manager approved per diem requests that he knew were fraudulent. Unsubstantiated.
01H17045	Two managers have falsified craft certifications on a long-term basis and have retaliated against an employee for refusing to attest to the forms' veracity. Unsubstantiated.
06L16740	Jobs were not posted Valleywide as required, and a plant manager's brother was promoted, constituting nepotism. Unsubstantiated.
12C16880	An executive new hire falsified relocation expenses. Unsubstantiated.
13E16958	Two nuclear managers hired a company to conduct work during an outage—the managers may have previously worked for the company; its workers were unqualified; and work packages were signed as complete by persons who did not perform the work. Unsubstantiated.
18-0070	A corporate senior manager allowed a subordinate to falsify work time based on his feelings toward the subordinate and her responses to his inappropriate behavior, and the interaction between the two could constitute harassment of the employee by the senior manager. Unsubstantiated.

**Metrics:** This appendix describes any closed investigations, not disclosed to the public, involving subjects specified by the IG Empowerment Act (salaried at 120 percent of GS-15 Level One). TVA does not operate on the GS scale, so all persons in this salary range, though included here, are not necessarily executive-level employees. Corollary to this, not all persons with substantial managerial duties are included here, based on their salaries.



#### **HIGHLIGHTS - STATISTICS**

Started   13		MAR 31, 2018	SEPT 30, 2017	MAR 31, 2017	SEPT 30, 2016	MAR 31, 2016
Started   18	AUDITS					
Started   13	AUDIT STATISTICS					
Canceled	Carried Forward	18	15	22	22	26
Completed   (10)   (10)   (14)   (14)   (14)   (15)   (16)   (1	Started	13	14	7	15	15
In Progress at End of Reporting Period 21 18 15 22 22  AUDIT RESULT'S (Thousands)  Questioned Costs \$6,829 \$4,672 \$10,531 \$3,271 \$9,039  Disallowed by TVA \$6,829 \$5,080 \$8,046 \$3,271 \$2,411  Recovered by TVA \$6,829 \$5,080 \$9,214 \$1,725 \$268  Funds to Be Put to Better Use \$39,639 \$17,680 \$8,934 \$9,214 \$1,725 \$268  Funds to Be Put to Better Use \$39,639 \$17,680 \$8,934 \$71,341 \$13,664 \$10,491  Recovered by TVA \$8,077 \$4,477 \$1,566 \$0 \$5,000 \$792  OTHER AUDIT-RELATED PROJECTS  Completed 5 7 2 2 9 3 3  Cost Savings Identified/Realized (Thousands) \$0 \$0 \$0 \$0 \$0 \$0 \$0  ENULUATIONS  ENULUATIONS  INVESTIGATION CASELOAD  Opened 97 95 97 108 100  Closed 98 92 84 104 103  In Progress at End of Reporting Period 141 107 146 136 131  In Progress at End of Reporting Period 141 107 146 \$100 130  In Progress at End of Reporting Period 5,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Canceled	(0)	(1)	(0)	(1)	(4)
In Progress at End of Reporting Period 21 18 15 22 22  AUDIT RESULT'S (Thousands)  Questioned Costs \$6,829 \$4,672 \$10,531 \$3,271 \$9,039  Disallowed by TVA \$6,829 \$5,080 \$8,046 \$3,271 \$2,411  Recovered by TVA \$6,829 \$5,080 \$9,214 \$1,725 \$268  Funds to Be Put to Better Use \$39,639 \$17,680 \$8,934 \$9,214 \$1,725 \$268  Funds to Be Put to Better Use \$39,639 \$17,680 \$8,934 \$71,341 \$13,664 \$10,491  Recovered by TVA \$8,077 \$4,477 \$1,566 \$0 \$5,000 \$792  OTHER AUDIT-RELATED PROJECTS  Completed 5 7 2 2 9 3 3  Cost Savings Identified/Realized (Thousands) \$0 \$0 \$0 \$0 \$0 \$0 \$0  ENULUATIONS  ENULUATIONS  INVESTIGATION CASELOAD  Opened 97 95 97 108 100  Closed 98 92 84 104 103  In Progress at End of Reporting Period 141 107 146 136 131  In Progress at End of Reporting Period 141 107 146 \$100 130  In Progress at End of Reporting Period 5,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Completed	(10)	(10)	(14)	(14)	(15)
Second   S		21	18	15	22	22
Disallowed by TVA         \$6,829         \$5,000         \$8,046         \$3,271         \$2,411           Recovered by TVA         \$0         \$428         \$9,214         \$1,725         \$268           Funds to Be Put to Better Use         \$39,639         \$17,660         \$28,248         \$8,001         \$15,444           Agreed to by TVA         \$33,018         \$8,934         \$21,341         \$13,664         \$10,491           Realized by TVA         \$3,0318         \$8,934         \$21,341         \$13,664         \$10,491           Realized by TVA         \$8,677         \$4,479         \$1,586         \$0         \$792           OTHER AUDIT-RELATED PROJECTS           Completed         \$0 <td< td=""><td>AUDIT RESULTS (Thousands)</td><td></td><td></td><td></td><td></td><td></td></td<>	AUDIT RESULTS (Thousands)					
Percent   Perc	Questioned Costs	\$6,829	\$4,672	\$10,531	\$3,271	\$9,039
Funds to Be Put to Better Use \$39,639 \$17,680 \$28,248 \$8,901 \$15,447 Agreed to by TVA \$33,018 \$8,934 \$21,341 \$13,664 \$10,491 Realized by TVA \$8,677 \$4,479 \$1,586 \$0 \$792  OTHER AUDIT-RELATED PROJECTS Completed 5 7 2 9 9 3 Cost Savings Identified/Realized (Thousands) \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0  EVALUATIONS  EVALUATIONS  INVESTIGATION CASELOAD Opened 97 95 97 108 100 103 101 100 101 101 101 101 101 101	Disallowed by TVA	\$6,829	\$5,080	\$8,046	\$3,271	\$2,411
Agreed to by TVA         \$33,018         \$8,934         \$21,341         \$13,664         \$10,491           Realized by TVA         \$8,677         \$4,479         \$1,586         \$0         \$792           OTHER AUDIT-RELATED PROJECTS           Completed         5         7         2         9         3           Cost Savings Identified/Realized (Thousands)         \$0         \$0         \$0         \$0         \$0           EVALUATIONS           Cost Savings Identified/Realized (Thousands)         \$0<	Recovered by TVA	\$0	\$428	\$9,214	\$1,725	\$268
Realized by TVA         \$8,677         \$4,479         \$1,586         \$0         \$792           OTHER AUDIT-RELATED PROJECTS         5         7         2         9         3           Cost Savings Identified/Realized (Thousands)         \$0         \$0         \$0         \$0         \$0           EVALUATIONS           Cost Savings Identified/Realized (Thousands)         \$0	Funds to Be Put to Better Use	\$39,639	\$17,680	\$28,248	\$8,901	\$15,447
Completed   5   7   2   9   3   3   3   5   5   7   2   9   3   3   5   5   7   2   9   3   3   5   5   7   2   9   3   5   5   5   7   5   5   5   5   5   5	Agreed to by TVA	\$33,018	\$8,934	\$21,341	\$13,664	\$10,491
Completed         5         7         2         9         3           Cost Savings Identified/Realized (Thousands)         \$0         \$0         \$0         \$0           EVALUATIONS           Completed         7         17         4         13         5           Cost Savings Identified/Realized (Thousands)         \$0         \$0         \$0         \$0         \$0           INVESTIGATIONS           INVESTIGATION CASELOAD           Opened         97         95         97         108         100           Closed         98         92         84         104         103           In Progress at End of Reporting Period         141         147         146         136         131           INVESTIGATIVE RESULTS (Thousands)           Recoveries         \$6,250         \$3,730.7         \$225.3         \$2,805.8°         \$615.2           Recoveries         \$6,250         \$3,730.7         \$225.3         \$2,805.8°         \$615.2           Projected Savings         \$2,079.1         \$680         \$404.8         \$4.5         \$0           Interpleta Savings         \$0.2         \$0         \$0	Realized by TVA	\$8,677	\$4,479	\$1,586	\$0	\$792
Number   Part   Part	OTHER AUDIT-RELATED PROJECTS					
NVESTIGATION S   South Savings Identified / Realized (Thousands)   South Savings Identified / Reporting Period   South Savings Identified   South Savin	Completed	5	7	2	9	3
Completed         7         17         4         13         5           Cost Savings Identified/Realized (Thousands)         \$0         \$0         \$0         \$0           INVESTIGATIONS'           INVESTIGATION CASELOAD           Opened         97         95         97         108         100           Closed         98         92         84         104         103           In Progress at End of Reporting Period         141         147         146         136         131           INVESTIGATIVE RESULTS (Thousands)         8         92         84         104         103           INVESTIGATIVE RESULTS (Thousands)         8         92         84         104         103           INVESTIGATIVE RESULTS (Thousands)         8         92         \$225.3         \$2,805.8°         \$615.2           Projected Savings         \$2,079.1         \$680         \$404.8         \$4.5         \$0           Fines/Penalties/Fees         \$0.7         \$20.5         \$0.2         \$0         \$0.1           Other Monetary Loss         \$40.8         \$0         \$1,291.4         \$0         \$1,418.8           Forfeiture(s) Ordered - Criminal         \$3,041.9         \$0	Cost Savings Identified/Realized (Thousands)	\$0	\$0	\$0	\$0	\$0
NVESTIGATIONS	EVALUATIONS					
INVESTIGATION   STATE   Control	Completed	7	17	4	13	5
NVESTIGATION CASELOAD   Opened	Cost Savings Identified/Realized (Thousands)	\$0	\$0	\$0	\$0	\$0
Opened         97         95         97         108         100           Closed         98         92         84         104         103           In Progress at End of Reporting Period         141         147         146         136         131           INVESTIGATIVE RESULTS (Thousands)           INVESTIGATIVE RESULTS (Thousands)           Recoveries         \$6,250         \$3,730.7         \$225.3         \$2,805.8²         \$615.2           Projected Savings         \$2,079.1         \$680         \$404.8         \$4.5         \$0           Fines/Penalties/Fees         \$0.7         \$20.5         \$0.2         \$0         \$0.1           Other Monetary Loss         \$40.8         \$0         \$1,291.4         \$0         \$1.48.8           Forfeiture(s) Ordered - Criminal         \$3,041.9         \$0         \$0         \$0         \$0           Forfeiture(s) Ordered - Civil         \$0         \$0         \$0         \$0         \$0           MANAGEMENT ACTIONS           Disciplinary Actions Taken (Number of Subjects)         11         6         8         17         11           Counseling/Management Techniques Employed (Number of Subjects)         7	INVESTIGATIONS <sup>1</sup>					
Closed         98         92         84         104         103           In Progress at End of Reporting Period         141         147         146         136         131           INVESTIGATIVE RESULTS (Thousands)         Recoveries         \$6,250         \$3,730.7         \$225.3         \$2,805.8²         \$615.2           Projected Savings         \$2,079.1         \$680         \$404.8         \$4.5         \$0           Fines/Penalties/Fees         \$0.7         \$20.5         \$0.2         \$0         \$0.1           Other Monetary Loss         \$40.8         \$0         \$1,291.4         \$0         \$148.8           Forfeiture(s) Ordered - Criminal         \$3,041.9         \$0         \$0         \$0         \$0           Forfeiture(s) Ordered - Civil         \$0         \$0         \$0         \$0         \$0           MANAGEMENT ACTIONS         Disciplinary Actions Taken (Number of Subjects)         11         6         8         17         11           Counseling/Management Techniques Employed (Number         7         9         10         8         18           of Cases)         0         0         0         0         0         0           PROSECUTIVE ACTIVITIES (Number of Subjects) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
In Progress at End of Reporting Period						100
INVESTIGATIVE RESULTS (Thousands)  Recoveries \$6,250 \$3,730.7 \$225.3 \$2,805.8² \$615.2  Projected Savings \$2,079.1 \$680 \$404.8 \$4.5 \$0  Fines/Penalties/Fees \$0.7 \$20.5 \$0.2 \$0 \$0.1  Other Monetary Loss \$40.8 \$0 \$1,291.4 \$0 \$1,418.8  Forfeiture(s) Ordered - Criminal \$3,041.9 \$0 \$0 \$0 \$0  Forfeiture(s) Ordered - Civil \$0 \$0 \$0 \$0 \$0  MANAGEMENT ACTIONS  Disciplinary Actions Taken (Number of Subjects) 11 6 8 17 11  Counseling/Management Techniques Employed (Number of Cases)  Debarment 0 0 0 0 0 0 0 0  PROSECUTIVE ACTIVITIES (Number of Subjects)  Referred to U.S. Attorneys 5 6 7 10 14  Referred to State/Local Authorities 0 1 0 1 0 10  Indicted/Information Filed 2 8 1 5 11  Convicted 6 4 1 1 3 11		98	92		104	103
Recoveries         \$6,250         \$3,730.7         \$225.3         \$2,805.8²         \$615.2           Projected Savings         \$2,079.1         \$680         \$404.8         \$4.5         \$0           Fines/Penalties/Fees         \$0.7         \$20.5         \$0.2         \$0         \$0.1           Other Monetary Loss         \$40.8         \$0         \$1,291.4         \$0         \$1,418.8           Forfeiture(s) Ordered - Criminal         \$3,041.9         \$0         \$0         \$0         \$0           Forfeiture(s) Ordered - Civil         \$0         \$0         \$0         \$0         \$0           MANAGEMENT ACTIONS         Disciplinary Actions Taken (Number of Subjects)         11         6         8         17         11           Counseling/Management Techniques Employed (Number of Cases)         7         9         10         8         18           Debarment         0         0         0         0         0         0           PROSECUTIVE ACTIVITIES (Number of Subjects)         5         6         7         10         14           Referred to U.S. Attorneys         5         6         7         10         14           Referred to State/Local Authorities         0         1         0	In Progress at End of Reporting Period	141	147	146	136	131
Projected Savings         \$2,079.1         \$680         \$440.8         \$4.5         \$0           Fines/Penalties/Fees         \$0.7         \$20.5         \$0.2         \$0         \$0.1           Other Monetary Loss         \$40.8         \$0         \$1,291.4         \$0         \$1,418.8           Forfeiture(s) Ordered - Criminal         \$3,041.9         \$0         \$0         \$0         \$0           Forfeiture(s) Ordered - Civil         \$0         \$0         \$0         \$0         \$0         \$0           MANAGEMENT ACTIONS         \$0         \$0         \$0         \$0         \$0         \$0         \$0           Management Techniques Employed (Number of Subjects)         11         6         8         17         11           Counseling/Management Techniques Employed (Number of Subjects)         7         9         10         8         18           OEbarment         0         0         0         0         0         0         0           PROSECUTIVE ACTIVITIES (Number of Subjects)         5         6         7         10         14           Referred to U.S. Attorneys         5         6         7         10         14           Referred to State/Local Authorities         0	INVESTIGATIVE RESULTS (Thousands)					
Fines/Penalties/Fees         \$0.7         \$20.5         \$0.2         \$0         \$0.1           Other Monetary Loss         \$40.8         \$0         \$1,291.4         \$0         \$1,418.8           Forfeiture(s) Ordered - Criminal         \$3,041.9         \$0         \$0         \$0         \$0           Forfeiture(s) Ordered - Civil         \$0         \$0         \$0         \$0         \$0           MANAGEMENT ACTIONS         Use of Subjects Subject Subjects Subject Subject Subject Subject Subject	Recoveries	\$6,250	\$3,730.7	\$225.3	\$2,805.8 <sup>2</sup>	\$615.2
Other Monetary Loss         \$40.8         \$0         \$1,291.4         \$0         \$1,418.8           Forfeiture(s) Ordered - Criminal         \$3,041.9         \$0         \$0         \$0         \$0           Forfeiture(s) Ordered - Civil         \$0         \$0         \$0         \$0         \$0           MANAGEMENT ACTIONS         Usiciplinary Actions Taken (Number of Subjects)         11         6         8         17         11           Counseling/Management Techniques Employed (Number of Cases)         7         9         10         8         18           Debarment         0         0         0         0         0         0           PROSECUTIVE ACTIVITIES (Number of Subjects)         Referred to U.S. Attorneys         5         6         7         10         14           Referred to State/Local Authorities         0         1         0         1         0           Indicted/Information Filed         2         8         1         5         1           Convicted         6         4         1         3         1	Projected Savings	\$2,079.1	\$680	\$404.8	\$4.5	\$0
Forfeiture(s) Ordered - Criminal \$3,041.9 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Fines/Penalties/Fees	\$0.7	\$20.5	\$0.2	\$0	\$0.1
MANAGEMENT ACTIONS	•	·		\$1,291.4	\$0	\$1,418.8
MANAGEMENT ACTIONS         Disciplinary Actions Taken (Number of Subjects)       11       6       8       17       11         Counseling/Management Techniques Employed (Number of Cases)       7       9       10       8       18         Debarment       0       0       0       0       0       0       0         PROSECUTIVE ACTIVITIES (Number of Subjects)       8       7       10       14         Referred to U.S. Attorneys       5       6       7       10       14         Referred to State/Local Authorities       0       1       0       1       0         Indicted/Information Filed       2       8       1       5       1         Convicted       6       4       1       3       1		\$3,041.9				
Disciplinary Actions Taken (Number of Subjects)       11       6       8       17       11         Counseling/Management Techniques Employed (Number of Cases)       7       9       10       8       18         Debarment       0       0       0       0       0       0         PROSECUTIVE ACTIVITIES (Number of Subjects)         Referred to U.S. Attorneys       5       6       7       10       14         Referred to State/Local Authorities       0       1       0       1       0         Indicted/Information Filed       2       8       1       5       1         Convicted       6       4       1       3       1	Forfeiture(s) Ordered - Civil	\$0	\$0	\$0	\$0	\$0
Counseling/Management Techniques Employed (Number of Cases)       7       9       10       8       18         Debarment       0       0       0       0       0       0         PROSECUTIVE ACTIVITIES (Number of Subjects)         Referred to U.S. Attorneys       5       6       7       10       14         Referred to State/Local Authorities       0       1       0       1       0         Indicted/Information Filed       2       8       1       5       1         Convicted       6       4       1       3       1						
of Cases)       Debarment       0       0       0       0       0       0       0         PROSECUTIVE ACTIVITIES (Number of Subjects)         Referred to U.S. Attorneys       5       6       7       10       14         Referred to State/Local Authorities       0       1       0       1       0         Indicted/Information Filed       2       8       1       5       1         Convicted       6       4       1       3       1		11	6	8	17	11
Debarment         0         0         0         0         0         0           PROSECUTIVE ACTIVITIES (Number of Subjects)           Referred to U.S. Attorneys         5         6         7         10         14           Referred to State/Local Authorities         0         1         0         1         0           Indicted/Information Filed         2         8         1         5         1           Convicted         6         4         1         3         1		7	9	10	8	18
Referred to U.S. Attorneys         5         6         7         10         14           Referred to State/Local Authorities         0         1         0         1         0           Indicted/Information Filed         2         8         1         5         1           Convicted         6         4         1         3         1		0	0	0	0	0
Referred to U.S. Attorneys         5         6         7         10         14           Referred to State/Local Authorities         0         1         0         1         0           Indicted/Information Filed         2         8         1         5         1           Convicted         6         4         1         3         1	PROSECUTIVE ACTIVITIES (Number of Subjects)					
Referred to State/Local Authorities         0         1         0         1         0           Indicted/Information Filed         2         8         1         5         1           Convicted         6         4         1         3         1		5	6	7	10	14
Indicted/Information Filed         2         8         1         5         1           Convicted         6         4         1         3         1		0	1	0	1	0
		2	8	1	5	1
Pretrial Diversion 0 1 0 0 0	Convicted	6	4	1	3	1
	Pretrial Diversion	0	1	0	0	0

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

<sup>&</sup>lt;sup>2</sup> Amount includes \$1,547,434, also included in AUDIT RESULTS—Recovered by TVA in the September 30, 2016, semiannual period, which was recovered in a qui tam settlement agreement negotiated by the U.S. Attorney's office with Bartlett Holdings, Inc.

#### **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, the Office of the Inspector General issued no contract review reports under this requirement.



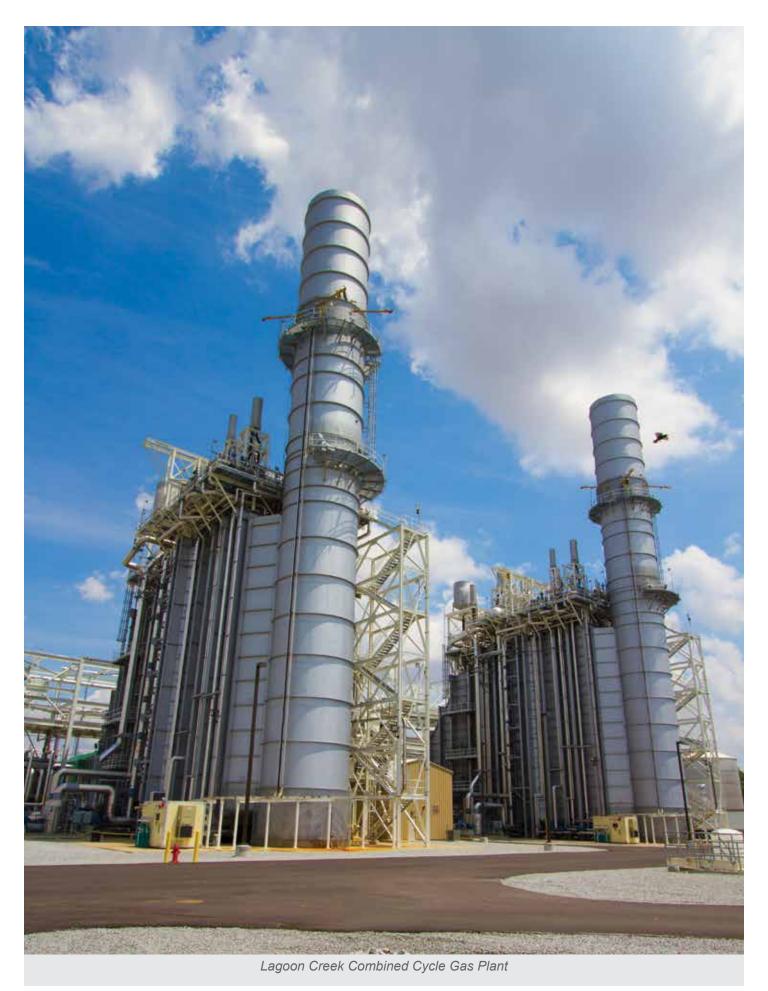
#### PEER REVIEWS OF THE TVA OIG

#### **Audits Peer Review**

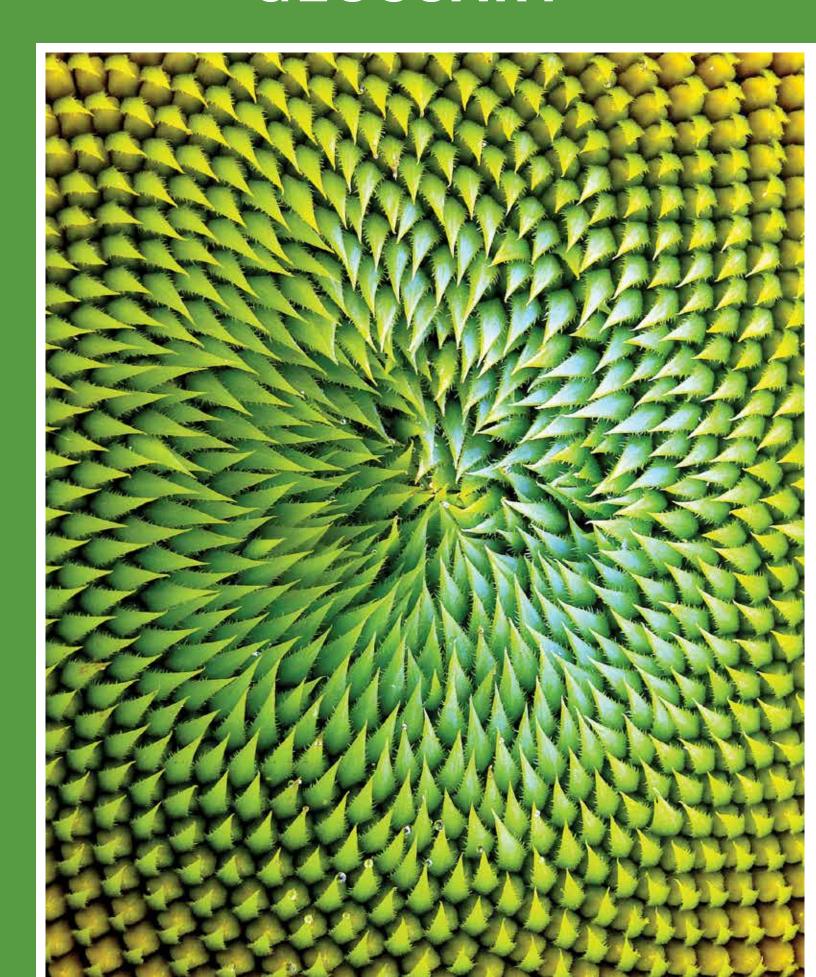
Inspector General audit organizations are required to undergo an external peer review of their system of quality control at least once every three years, based on requirements in the *Government Auditing Standards*. Federal audit organizations can receive a rating of pass, pass with deficiencies, or fail. The Tennessee Valley Authority (TVA) Office of the Inspector General (OIG) underwent its most recent peer review of its audit organization for the period ended September 30, 2016. This review was performed by the Federal Deposit Insurance Corporation OIG. The Federal Deposit Insurance Corporation OIG issued its report, dated May 16, 2017, in which it concluded the system of quality control for the audit organization of TVA OIG in effect for the year ended September 30, 2016, has been suitably designed and complied with to provide TVA OIG with reasonable assurance of performing and reporting in conformity with applicable professional auditing standards in all material respects. Accordingly, the TVA OIG received a rating of pass. The peer review report is posted on our Web site at http://oig.tva.gov/peer\_reports.html.

## Investigations Peer Review

Investigative Operations undergoes an external peer review, Quality Assessment Review, at least once every three years. The U.S. Railroad Retirement Board (RRB) OIG completed a Quality Assessment Review of TVA OIG Investigative Operations on May 23, 2016. RRB OIG found the ". . . system of internal safeguards and management procedures for the investigative function of the Tennessee Valley Authority OIG in affect [sic] through April 1, 2016 is compliant with the quality standards established by the CIGIE and the Attorney General Guidelines. . . ." This confirmation is posted on our Web site at <a href="http://oig.tva.gov/peer reports.html">http://oig.tva.gov/peer reports.html</a>.



# GLOSSARY



#### Disallowed Cost

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

#### Final Action

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

#### **Funds Put To Better Use**

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

## Improper Payment

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

#### Information

A formal accusation of a crime made by a prosecuting officer as distinguished from an indictment presented by a grand jury.

# **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 Cost**

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.

Act	False Claims Act
	Arab (Alabama) Electric Cooperative
	TVA Board of Directors
	Corrective Action Program
CIGIE	Council of the Inspectors General on Integrity and Efficiency
CO	
CRs	
CWA	
CWEL	Chilled Work Environment Letter
DOE	Department of Energy
DOL	
EEOC	Equal Employment Opportunity Commission
EPA CID	U.S. Environmental Protection Agency Criminal Investigation Division
EPRI	Electric Power Research Institute
	Federal Bureau of Investigation
	Fuel Cost Adjustment
	Federal Employees' Compensation Act
	Federal Information Security Modernization Act
	Fixed-Wing Aircraft
	Fiscal Year
	Heating, Ventilation, and Air Conditioning
	Interruptible Power
	Information Security Program
	Information Technology
	Medical Case Management
	Nuclear Regulatory Commission
	Office of the Inspector General
	Office of Workers' Compensation Programs
RCRA	Resource Conservation and Recovery Act
	U.S. Railroad Retirement Board
	Standard Programs and Processes
	Temporary Living Allowance
	Tennessee Valley Authority
WP	



#### Office of the Inspector General

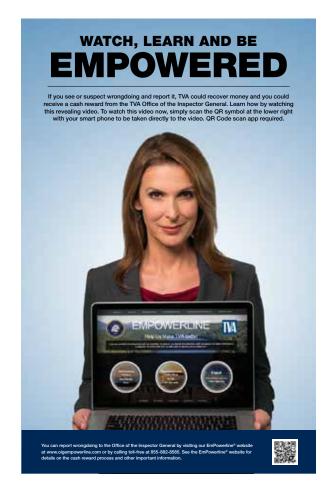
400 West Summit Hill Drive Knoxville, Tennessee 37902

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 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). A third-party contractor will take your call or online concern and immediately forward it to OIG personnel. You may report your concerns anonymously or you may request confidentiality.

# Report Concerns to the OIG EmPowerline



We are a high performing work team that achieves OIG strategic objectives through operational excellence and modeling our values and behaviors every day.

