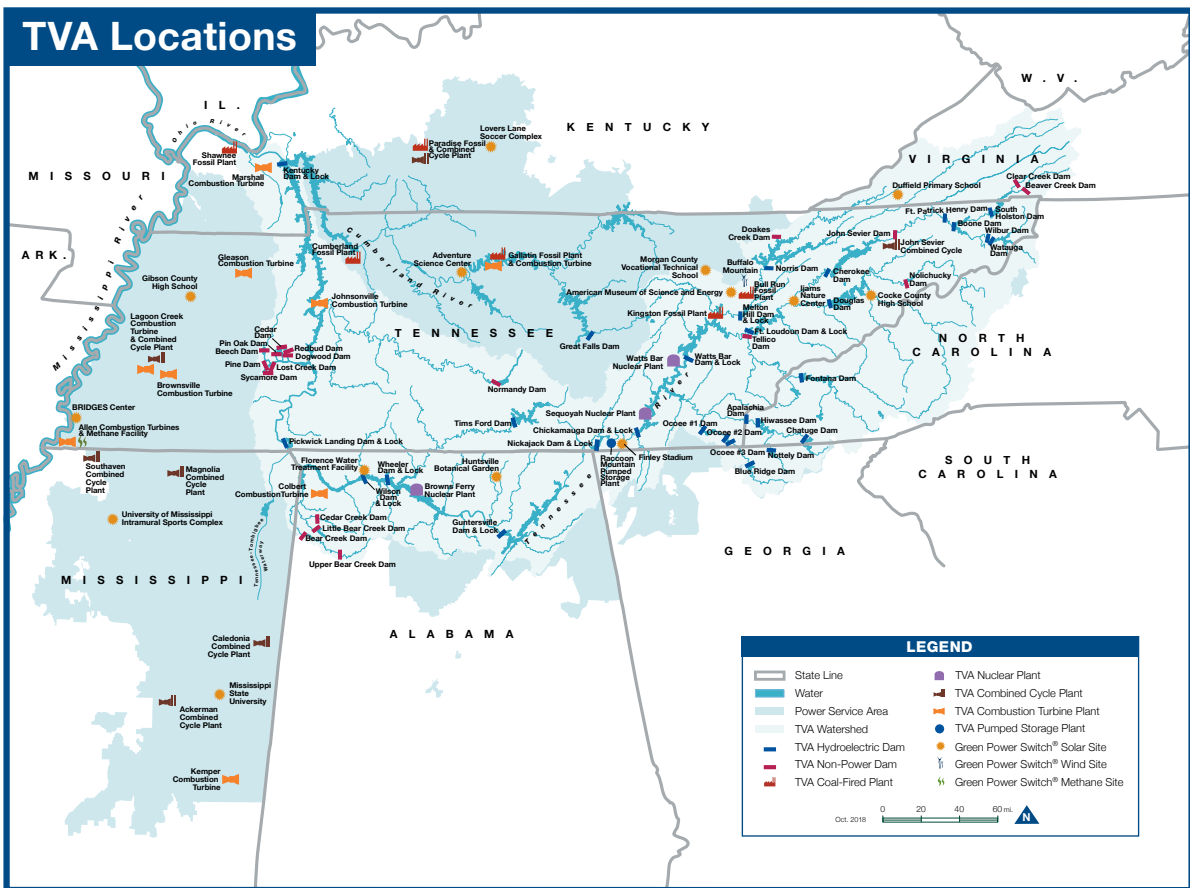
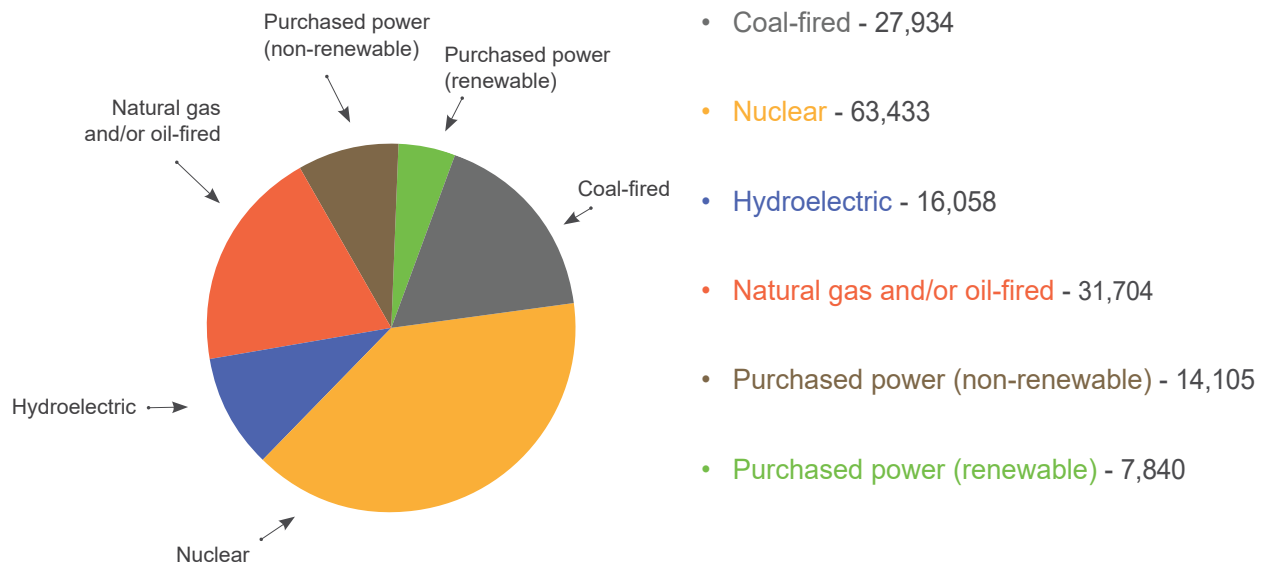




Office of the Inspector General  
TENNESSEE VALLEY AUTHORITY  
Semiannual Report  
April 1, 2019 - September 30, 2019



## Power Supply from TVA-Operated Generation Facilities and Purchased Power Twelve Months Ended September 30, 2019<sup>1</sup> (in millions of kilowatt hours)



<sup>1</sup> For additional detail, see TVA's 10-K for the period ended September 30, 2019.



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# MESSAGE FROM THE DEPUTY INSPECTOR GENERAL



*I am pleased to present our report for the period April 1, 2019, to September 30, 2019. Our independent, professional, and dedicated staff are focused on identifying potential risks to the Tennessee Valley Authority's (TVA) ability to achieve its mission of providing reliable power at the lowest feasible rates, environmental stewardship, and economic development to the Tennessee Valley.*

In this semiannual period, our audit, evaluation, and investigative activities identified more than \$13.7 million in questioned costs, recoveries, and savings, and shared opportunities for TVA to improve its programs and operations. Below are highlights of our work this period.

- A contract compliance audit identified overbillings of \$46,828, and the use of fixed price payment terms caused TVA to pay at least \$11.5 million more than it would have if the contract's cost reimbursable payment terms had been used for those projects.
- An audit of executive travel found several instances where TVA executives did not comply with the Federal Travel Regulation and/or TVA travel policies.
- In a review of the TVA transmission system's internet security, Information Technology (IT) Audits identified vulnerabilities that increase TVA's risk of cyberattacks, a gap in its monitoring system, and device configuration issues. TVA took immediate action to mitigate the vulnerabilities.
- Evaluations of coal and gas plant emergency preparedness and response identified emergency plans that contained inaccurate information and were not reviewed on a timely basis. In addition, some systems necessary for execution of the plans were not available or not functional.
- An evaluation of the design change process in coal operations found the design change process was not always followed resulting in outdated official drawings.
- Organizational effectiveness evaluations of two Hydro generation regions, one fossil plant, nuclear security, Transmission Operations, Reliability and SCADA,<sup>1</sup> and IT Corporate Solutions identified strengths as well as risks that could impact the ability of the groups to achieve their mission.
- A contractor with subject matter expertise reviewed groundwater monitoring activities at the Kingston Fossil Plant Peninsula Disposal Unit and opined that monitoring activities performed there are in

<sup>1</sup> The acronym, SCADA, is defined as Supervisory Control and Data Acquisition.



adherence with the Environmental Protection Agency and the Tennessee Department of Environment and Conservation guidelines. Additionally, the contractor stated the work performed appears to be of high quality and does not likely result in any discrepancies for the program.

- Investigative results included sentencing of a former employee in a theft case, a guilty plea in a temporary living allowance case, recovery of more than \$560,000, and identification of more than \$1.5 million in other monetary loss.

In August 2019, William B. Kilbride of Chattanooga, Tennessee, was sworn in as the newest member of the TVA Board. We welcome Director Kilbride and look forward to a productive working relationship with him.

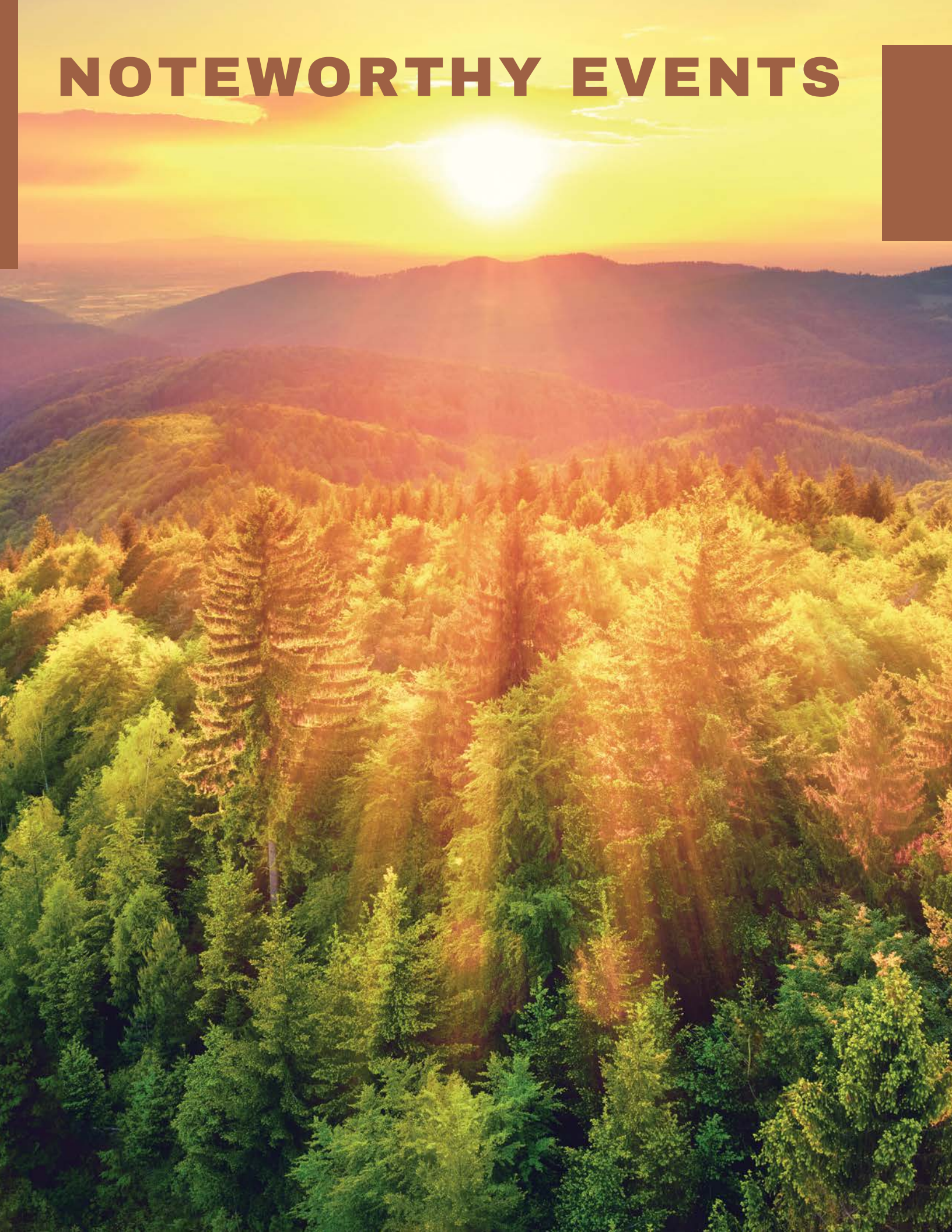
We share a common goal with the TVA Board, the Chief Executive Officer, and TVA employees; we want TVA to succeed for the betterment of the Tennessee Valley. We are committed to continuing to shine a light on potential risks so that TVA Board members and management can make changes to mitigate those risks and better serve the people of the Tennessee Valley.

  
Jill M. Matthews

Deputy Inspector General Performing the  
Duties of the Inspector General



# NOTEWORTHY EVENTS





## ERIC CORBETT RECOGNIZED FOR CONTRIBUTION TO CIGIE TRAINING PROGRAM

The Council of the Inspectors General on Integrity and Efficiency (CIGIE) was established to address integrity, economy, and effectiveness issues that transcend individual government agencies and aid in the establishment of a professional, well-trained, and highly skilled workforce across the 74 Offices of Inspectors General (OIG). CIGIE relies, in part, on people within the Inspector General (IG) community willing to share their experience, expertise, and knowledge with colleagues in the community as adjunct instructors.

On October 17, 2019, CIGIE recognized those individuals from across the community that have served as adjunct instructors for CIGIE learning programs. Our own, Eric Corbett, was one of those recognized for his contributions to CIGIE. Eric leveraged his experience as a Senior Fraud Examiner to create a “Data Analytics in Investigations” teaching block for new agents at the CIGIE IG Criminal Investigator Academy. This interactive course focuses on use of basic data interpretations in an agent’s case work and is intended to broaden the awareness of data uses for agents to source and work their cases.

“We are proud of and glad that Eric can share his experience, knowledge, and expertise with others in the IG community,” stated Deputy Inspector General Jill Matthews. “These types of shared experiences allow all IGs to learn from each other which will help the community perform our work more efficiently and effectively.”

## TVA OIG TEAM WINS CIGIE AWARD

To highlight the good work of federal IGs, CIGIE conducts an annual awards process where individual OIGs submit nominations for outstanding work performed. There are varying types of awards given based on established criteria.

This year, a TVA OIG team composed of Rick Taylor, Maria Edwards, and Ala Young won a CIGIE Award of



*From left to right: Maria Edwards, Rick Taylor, and Ala Young.*

Excellence for their audit of the post-project economic assessment process for TVA capital projects. The electric utility business is capital intensive. In fiscal years (FY) 2018, 2019, and 2020, TVA expected to spend between \$1.7 billion and \$2 billion a year on capital projects. The benefit of a strong, post-project assessment process is being able to apply lessons learned for future capital projects. The team found TVA’s process was not generally being performed, lacked adequate monitoring of actual return on investment, and did not have a robust process to address the results of the assessments.

“I am very proud of this team and the recognition they are receiving for their work. Implementation of this team’s recommendations will provide better information to TVA management in making future capital allocation decisions. These decisions can have a lasting impact on TVA’s ability to achieve its mission in the most cost-effective manner for the ratepayers of the Valley,” stated Jill Matthews, Deputy Inspector General.

The capital projects post-economic assessment review team members received their CIGIE award on October 15, 2019, at an awards ceremony in Washington, D.C.

# EXECUTIVE OVERVIEW





*As the largest public power utility in the United States, TVA is a member of an industry facing change. With the combination of declining demand, technology innovation, and expanding customer expectations, all utilities must challenge their business model to meet the needs of tomorrow. Unlike private utility companies, TVA's status as a government corporation gives it some unique tools. In 1985, legislation was passed to create the TVA OIG to ensure TVA would receive objective and independent oversight. Our office is here to provide insight for effective and efficient operations and the prevention and detection of fraud, waste, and abuse. The work we perform is aligned to fulfill the vision of our office, to help make TVA better.*

## AUDITS

Our audit organization includes three departments that focus on contract audits, financial and operational audits, and IT audits. During this reporting period, these teams completed eight audit, examination, and agreed-upon procedures engagements which identified more than \$11.6 million in questioned costs. We also identified several opportunities for TVA to improve the effectiveness and efficiency of its programs and operations.

### Contract Audits

We completed a compliance audit of costs billed by a contractor under two contracts with expenditures totaling \$119.3 million for engineering services. This audit found (1) the contractor overbilled TVA \$46,828, (2) the use of fixed price payment terms on projects caused TVA to pay at least \$11.5 million more than it would have if the contract's cost reimbursable payment terms had been used for those projects, and (3) issues with TVA's contract administration. 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 executive travel, timely access removal, and employee recognition expenditures. In addition to our audit work, we performed work to assist TVA's external auditor. The Financial and Operational Audits section begins on page 17 of this report.

### IT Audits

IT Audits completed audits of (1) transmission system perimeter attacks, (2) enhanced e-mail and Web security compliance, (3) TVA's information system categorization process, and (4) hydro generation cybersecurity controls. The IT Audits section begins on page 19 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 11 evaluations and six organizational effectiveness reviews, all of which identified opportunities for improvement. In addition, the team conducted two follow-up reviews to previous organizational effectiveness reviews.

### Evaluations

The 11 evaluations completed included reviews of coal and gas plant emergency preparedness and response, the qualifications of safety-sensitive positions in Power Operations, the reliability of inventory data in Maximo, coal plant work management, coal operations' design change notice process, the accuracy of payments made for workers' compensation benefits, the nuclear fatigue rule at Browns Ferry Nuclear Plant (BFN), nuclear outage material management, the winning performance individual performance multiplier, and the system operations center site selection. The Evaluations section begins on page 20 of this report.

## Organizational Effectiveness

This group completed six organizational effectiveness evaluations, including two Hydro Generation regions; Nuclear Security; Transmission Operations, Reliability and SCADA; IT Corporate Solutions; and Shawnee Fossil Plant. In addition, the team conducted two follow-up reviews to previous organizational effectiveness reviews of Supply Chain – Materials and Transportation Management and Supply Chain – Sourcing. The Organizational Effectiveness section begins on page 24 of this report.

## INVESTIGATIONS

This reporting period, we opened 101 cases and closed 83. Our investigative results include one individual's sentencing in federal court, a conviction, and recoveries in one case exceeding \$450,000. The Investigations section begins on page 32 of this report.

### STATISTICAL HIGHLIGHTS

*April 1, 2019 - September 30, 2019*

Audit Reports Issued	8
Evaluations Completed	19
Questioned Costs	\$11,686,244
Questioned Costs Agreed to by TVA	\$11,686,244
Questioned Costs Recovered by TVA	\$108,781
Funds to be Put to Better Use	\$0
Savings Realized by TVA	\$7,439,000
Investigations Opened	101
Investigations Closed	83
Recoveries/Fees	\$569,380
Other Monetary Loss	\$1,510,970
Criminal Actions	2
Administrative Actions (Number of Subjects)	3

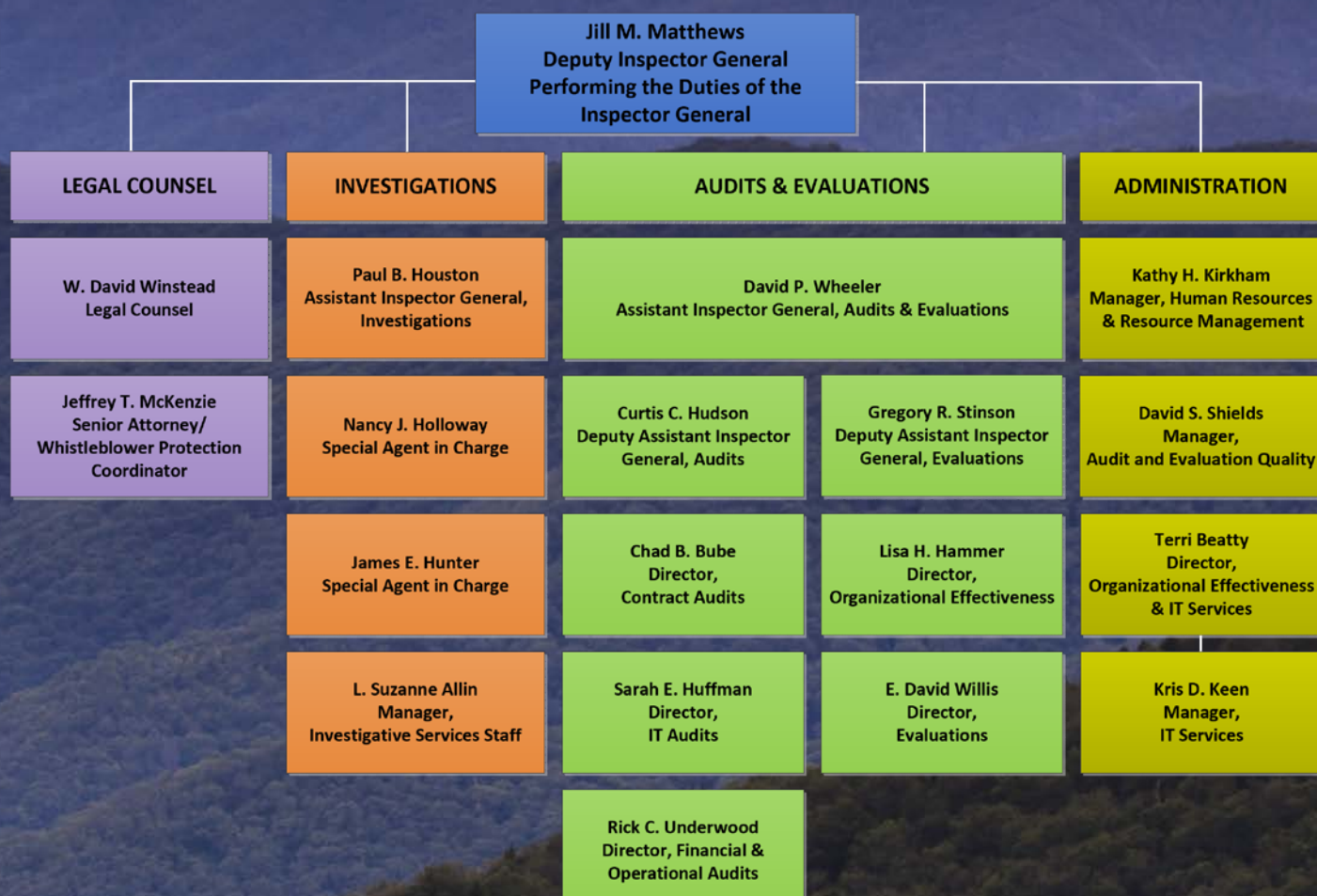




Paradise Fossil Plant



# ORGANIZATION





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

## TVA OIG OFFICE LOCATIONS

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

The OIG has strategically located its offices near all major TVA offices throughout the Tennessee Valley. We are headquartered in TVA's 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 September 30, 2019, the OIG had a total staff of 103 employees.

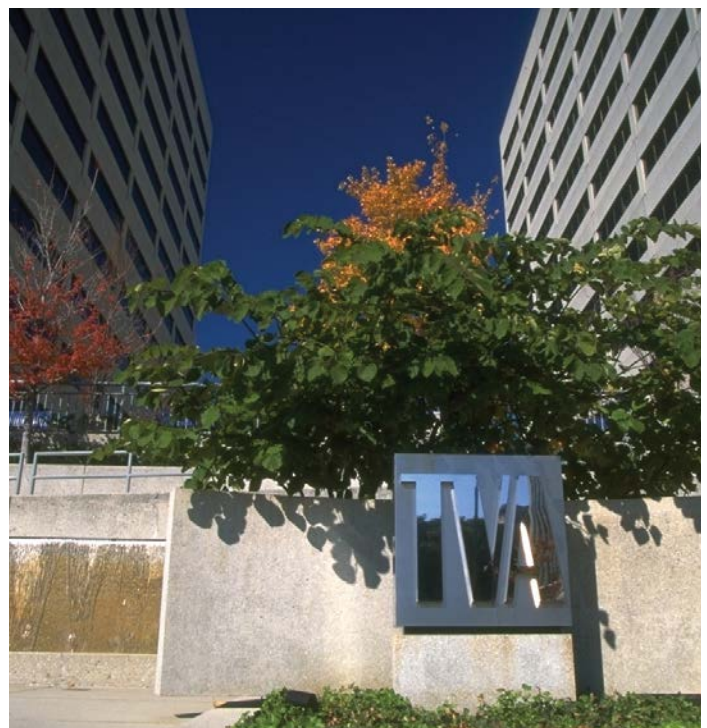
## ADMINISTRATION

**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



## 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

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.

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** conducts 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 CIGIE.

- Evaluations performs both comprehensive reviews and more limited-scope policy and program reviews to monitor compliance 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 (DOJ) 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. 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

#### Health Care Fraud

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

#### Unauthorized Access Into TVA Computer Systems

Accessing a TVA computer without authorization or exceeding authorized access

#### Workers' Compensation Fraud

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

#### Employee Misconduct

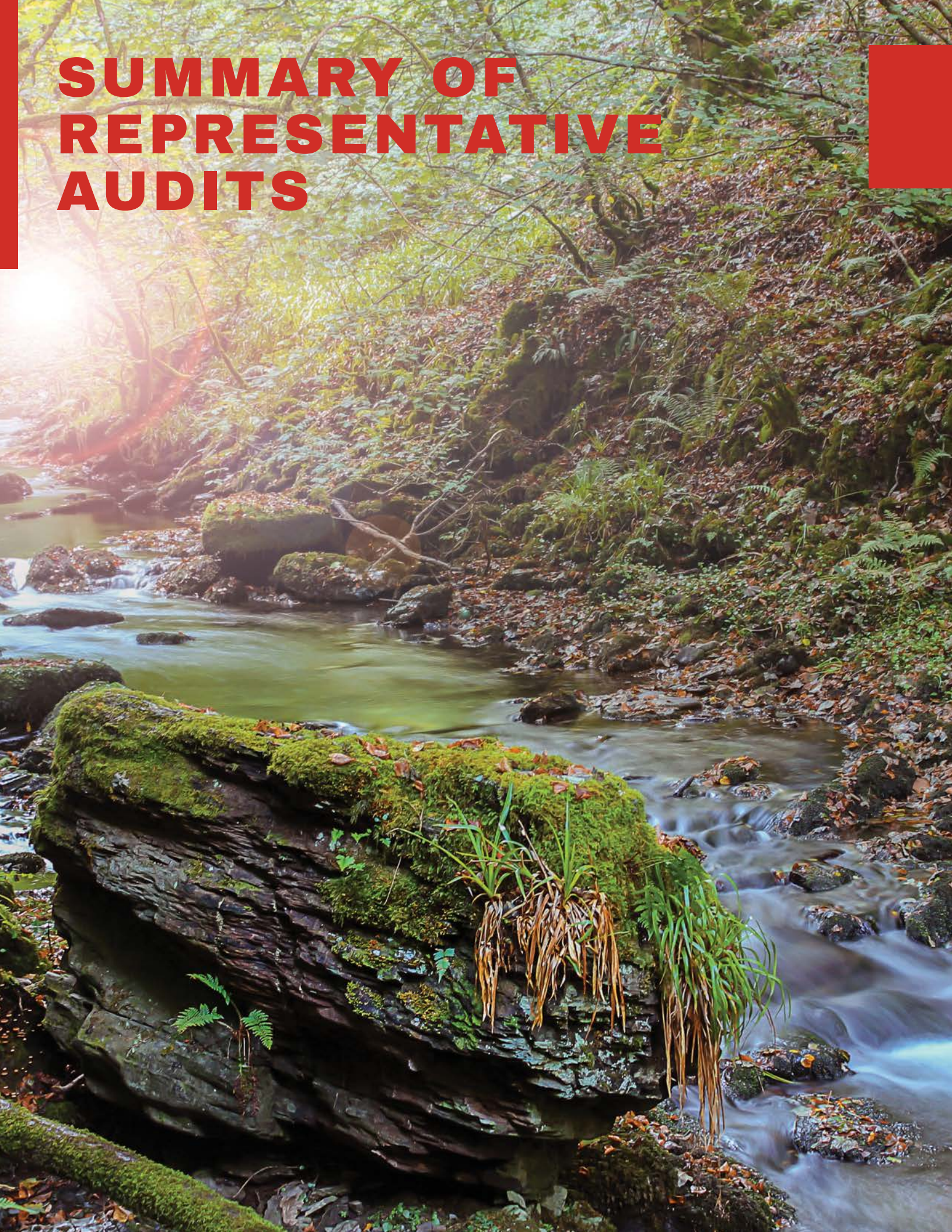
Misuse of TVA-furnished equipment, travel voucher fraud, a multitude of miscellaneous matters of abuse, conflict of interest, and violations of code of conduct

#### Special Projects

Management requests, data mining and predictive analysis, congressional and TVA Board requests, and Fraud Risk Assessments



# SUMMARY OF REPRESENTATIVE AUDITS





*During this semiannual reporting period, the TVA OIG Audit organization completed eight audit, examination, and agreed-upon procedures engagements. This work identified more than \$11.6 million in questioned costs. We also identified several opportunities for TVA to improve the effectiveness and efficiency of its programs and operations.*

## CONTRACT AUDITS

During this semiannual period, we completed one compliance audit of costs billed by a contractor under two contracts for a broad range of engineering, design, and construction support services for the TVA nuclear operating units, transmission lines, substations, and telecommunications facilities. The contracts provided for TVA to compensate the contractor for work on either a cost reimbursable or fixed price basis. Our audit objectives were to determine if (1) costs were billed in accordance with the terms and conditions of the contracts and (2) tasks were issued using the most cost efficient pricing methodology. Our audit scope included about \$119.3 million in costs billed to TVA from July 19, 2014, through December 30, 2017. This included \$21.0 million for cost reimbursable projects and \$98.3 million for fixed price projects. In summary, we determined:

- The contractor overbilled TVA \$46,828 on cost reimbursable projects, including (1) \$43,080 in labor burden and other direct costs and (2) \$3,748 in volume rebates (of which a credit of \$2,236 was subsequently provided to TVA).
- The use of fixed price payment terms on projects caused TVA to pay at least \$11.5 million more than it would have if cost reimbursable payment terms had been used for those projects.

We also noted issues with TVA's contract administration, including inadequate oversight of the (1) fee evaluation process and (2) process for evaluating fixed price proposals. Additionally, TVA may have missed the opportunity to receive \$121,083 in volume rebates due to certain contractual language that benefited the contractor.

## FINANCIAL AND OPERATIONAL AUDITS

During this semiannual period, Financial and Operational Audits completed audits of TVA executive travel, timely access removal, and employee recognition expenditures. In addition to our audit work, we performed work to assist TVA's external auditor.

### Executive Travel

We included an audit of TVA's executive travel expenses in our annual audit plan because of issues of noncompliance with TVA policies and procedures identified during the annual testing of TVA executive officers' expenses as part of the year-end external audit. Our audit objective was to determine if executive travel expenses complied with the Federal Travel Regulation (FTR) and TVA policies and procedures. Our audit scope included TVA executive travel occurring from October 1, 2016, through July 31, 2018. We also reviewed (1) transactions placed on administrative assistants' credit card accounts and the credit card accounts of TVA police assigned as executive protection to determine if those charges were made on behalf of an executive and (2) executive travel costs charged on the credit card accounts for the Chief Executive Officer and his direct reports that were reported to the TVA Board of Directors.

Between October 1, 2016, and July 31, 2018, TVA had 67 executives and paid approximately \$1.8 million for executive travel expenses. Our review found several instances where TVA executives did not comply with the FTR and/or TVA policies for travel, business meetings, and hospitality, including:

- Overpaid meal and incidental expenses per diem.
- Excessive meal costs incurred while in travel status.

- The use of “car services” instead of less expensive modes of transportation in certain locations.<sup>2</sup>
- Foreign travel expenses that did not comply with the FTR and TVA policies.
- Lodging that was not always in compliance with the FTR and TVA policies.
- Some travel costs that were not reported to the TVA Board of Directors.

Additionally, we found domestic airfare was generally in compliance with the FTR, but an area for improvement was identified.

In summary, the actions by some TVA executives indicate a “Tone at the Top” that could send a message to TVA employees that management is not committed to the TVA Code of Conduct and compliance with the FTR and TVA policies and procedures. TVA management agreed there were opportunities for improvement and provided actions they plan to take to address our recommendations for strengthening controls around executive travel.

## Timely Access Removal

Due to potential risks associated with employee separations where some TVA employees ceased active work prior to their last official day of employment, we included an audit of timely access removal as part of our annual audit plan. Our audit objective was to determine if physical and logical access is removed when employees cease active work prior to retirement or other termination. Our scope included TVA employees whose employment ended during calendar year 2018 who ceased active work prior to retirement or other termination.

In summary, we found (1) TVA’s policies and procedures do not provide guidance for supervisors/managers regarding removal of an employee’s logical or physical access if they stop active work prior to separation and (2) employee’s physical and logical access is not

consistently removed on a timely basis (within 7 days of the employee’s last date worked) when employees cease active work prior to retirement or other separation. TVA management agreed with our recommendations to improve its access removal process.

## Employee Recognition Expenditures

TVA’s Compensation and Benefits organization administers an employee recognition program consisting of a variety of formal programs implemented throughout TVA. TVA’s Employee Recognition policy states that the purpose of employee recognition is to provide positive reinforcement to employees by promoting the recognition and acknowledgement of their dedication and contribution towards the accomplishment of organizational goals and success in a regular and timely manner. We included an audit of TVA’s employee recognition expenditures in our annual audit plan due to concerns submitted to our office relating to potentially questionable purchases. Our audit objective was to determine if employee recognition expenditures were made in compliance with TVA policies and procedures. Our audit scope included approximately \$2.6 million in employee recognition expenditures from October 1, 2016, through September 30, 2018 (TVA’s FYs 2017 and 2018).

We found that employee recognition expenditures generally were not made in compliance with TVA policies and procedures. Specifically, we found (1) a lack of appropriate preapprovals, (2) strategic business unit-sponsored employee recognition expenditures not associated with an approved program, (3) transactions for items not allowable as employee recognition, and (4) split transactions. We also found employee recognition transactions that could pose reputational risks to TVA. Further, we found that oversight of employee recognition programs needs improvement, including monitoring of all employee recognition expenditures. Finally, we found that gift card award programs were not properly administered. TVA management agreed with our recommendations to update its policies and enhance oversight of employee recognition transactions.

<sup>2</sup> Car services consisted primarily of a service that put a chauffeur at the executives’ disposal at an hourly rate.



## IT AUDITS

During this semiannual period, IT Audits completed audits of (1) transmission system perimeter attacks, (2) enhanced e-mail and Web security compliance, (3) TVA's information system categorization process, and (4) hydro generation cybersecurity controls.

### Transmission System Perimeter Attacks

We performed an audit of TVA's transmission system's internet security to determine if TVA could appropriately prevent, detect, and defend against cyberattacks from the internet targeting the transmission system. In summary, we (1) identified vulnerabilities that increase TVA's risk of successful cyberattacks, (2) found a gap in how TVA's cybersecurity monitoring system detects cyberattacks against the transmission system, and (3) found TVA had not configured network devices in a consistent manner. TVA management remediated or mitigated all identified vulnerabilities and agreed with our remaining findings and recommendations to create baseline configurations for network devices and make improvements to transmission internet connection cyber monitoring.

### Enhanced E-Mail and Web Security Compliance

We audited TVA's compliance with the Office of Management and Budget's (OMB) memorandum (M) 15-13, *Policy to Require Secure Connections Across Federal Websites and Web Services*, and Department of Homeland Security's (DHS) binding operational directive (BOD) 18-01, *Enhance E-mail and Web Security*, regarding Web site and e-mail security practices. We reviewed TVA's internet domains and publicly accessible Web sites and determined TVA was not in compliance with OMB M-15-13 and DHS BOD-18-01. In addition, we found TVA's Web site inventory was incomplete. TVA management agreed with our findings and recommendations to (1) update its security policies and Web sites and (2) periodically review its Web site inventory.

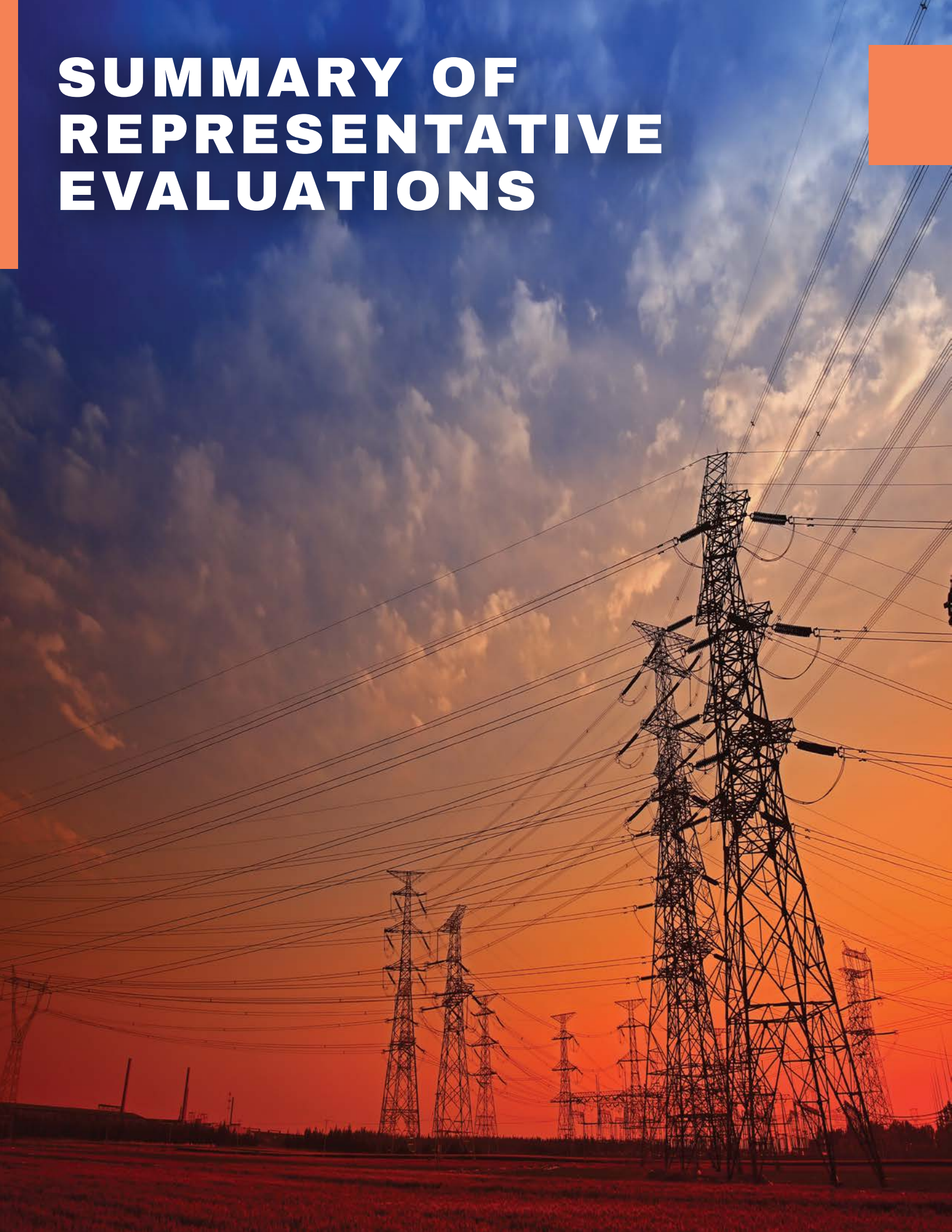
## Information Systems Categorization Process

We audited TVA's information systems categorization process to determine if the process was effective and in compliance with Federal Information Processing Standards (FIPS) Publication 199 and National Institute of Standards and Technology Special Publication (NIST SP) 800-60. We determined that portions of TVA's information systems categorization process were effective. Specifically, we found TVA's process was (1) designed in alignment with the agency's mission and FIPS Publication 199, (2) well understood by TVA Cybersecurity personnel, and (3) clearly documented. However, we found gaps with implementing NIST SP 800-60 guidance. Specifically, we found (1) we could not verify that TVA considered NIST system factors in the systems categorization process, (2) consideration and documentation for interconnecting systems was inconsistent, (3) not all categorized systems were revisited every three years, and (4) several Web sites, systems, and/or subcomponents for larger systems were not categorized. TVA management agreed with our recommendations to correct the identified gaps.

### Hydro Generation Cybersecurity Controls

We performed an audit of TVA Hydro Generation's cybersecurity controls. In summary, we found that TVA generally had logical, physical, and general security controls that were appropriately designed and operating effectively to reduce cybersecurity risk. However, we found TVA had (1) a potential single point of failure that could affect TVA's ability to operate effectively in the event of a disaster, (2) not configured network devices in a consistent manner, and (3) not maintained updated network documentation. TVA management provided its planned actions to address our findings and recommendations.

# SUMMARY OF REPRESENTATIVE EVALUATIONS





*During this reporting period, our teams completed 11 evaluations and six organizational effectiveness reviews, all of which identified opportunities for improvement. In addition, the teams conducted two follow-up reviews to previous organizational effectiveness reviews.*

## EVALUATIONS

The Evaluations department completed evaluations of (1) emergency preparedness and response at coal and gas plants, (2) qualifications of safety-sensitive positions in Power Operations, (3) reliability of inventory data in Maximo, (4) coal plant work management, (5) coal operations' design change notice process, (6) accuracy of payments made for workers' compensation benefits, (7) nuclear fatigue rule at BFN, (8) nuclear outage material management, (9) winning performance individual performance multiplier, and (10) System Operations Center (SOC) site selection.

### Coal and Gas Plant Emergency Preparedness and Response

Due to the importance of an effective response in the event of an emergency, we conducted evaluations of emergency preparedness and response at TVA coal and gas plants. The objectives of our evaluations were to determine if (1) emergency response plans at coal and gas plants were up to date and (2) required systems were available and functional.

- **Coal** – We found (1) three of six emergency plans for active coal plants were not reviewed timely and all six contained inaccurate contact information; (2) two of four emergency plans for retired coal plants were not reviewed timely and plans were not executable because of changed plant conditions; and (3) 14 of 15 emergency action plans required for coal combustion residuals storage facilities were not reviewed on a timely basis. We also found some systems required in emergency response plans were not functional.

- **Gas** – We found 10 of 17 emergency response plans for gas plants were not reviewed on a timely basis and all contained inaccurate contact information. We also found some systems required in emergency response plans were not available or functional. Specifically, we observed availability or functionality issues with at least two of four emergency alerting and notification systems tested at all six gas plants visited.

TVA management provided actions taken, or planned, to address our recommendations to correct the deficiencies.

### Qualifications for Safety-Sensitive Positions in Power Operations

Due to the importance of having qualified personnel in safety-sensitive positions, we conducted an evaluation to determine if minimum job requirements for safety-sensitive positions in Power Operations were met at the time of promotion or hire. We reviewed minimum job requirements for 56 of 141 employees who were hired, rehired, or promoted to safety-sensitive positions in Power Operations during FYs 2017 and 2018. We determined some employees did not meet minimum job requirements for safety-sensitive positions upon hire or promotion. Specifically, 4 employees did not meet one or more of the job requirements related to certifications or experience. In addition, 11 employees in safety-sensitive positions did not meet minimum training requirements listed on the job descriptions to be completed after they were promoted. We also identified an opportunity for improvement regarding documentation of required training. TVA management provided actions planned to address our recommendations regarding minimum job requirements for safety-sensitive positions.

## Reliability of Inventory Data in Maximo

TVA's Enterprise Asset Management system, Maximo, stores and maintains data about assets, facilities, and inventory. Maximo's inventory module helps maximize the availability of items while reducing excess inventory balances. Based upon concerns regarding the reliability of data in Maximo, we conducted an evaluation of inventory data in Maximo to determine if (1) data entered into key inventory fields in Maximo was valid and (2) key inventory fields were utilized consistently. We found most key inventory fields were utilized; however, some of the key fields contained invalid data. Specifically, we determined there was invalid data in fields related to (1) quality assurance levels, (2) inventory status, (3) item descriptions, (4) units of measure, and (5) sites. TVA management agreed with our findings and provided planned actions to address our recommendation to correct the issues and implement validation controls.

## Coal Plant Work Management

Due to the importance of maintaining equipment in good operating condition and concerns raised during past OIG reviews, we conducted an evaluation to determine if (1) Coal Operations fully implemented the work management process improvements recommended by a consultant and (2) performance metrics indicated the changes had improved work management. We were unable to determine if Coal Operations fully implemented work management process improvements recommended

because there were no formal recommendations made for coal plants. While the consultant did not provide recommendations to TVA for coal plants, we reviewed work management metrics and determined that one metric improved while the consultant was on-site while others had mixed results. However, performance declined in the 6 months after the consultant left at several sites. We recommended TVA management track metrics after completion of an initiative to determine if actions were effective and develop detailed implementation plans for work management. TVA management plans to implement each of our recommendations.

## Coal Operations' Design Change Notice Process

TVA's drawing program is designed and maintained to document the configuration of TVA's systems, structures, and components. Drawings are utilized for a variety of reasons, including plant operation, maintenance activities, troubleshooting, and to establish clearance boundaries for isolating equipment so that work can be performed safely. Modifications to configuration should be captured through TVA's Design Change Notice (DCN) process to ensure configuration control is maintained and drawings are updated to reflect the changes. Due to the importance of accurate drawings to plant personnel safety, we performed an evaluation to determine if the DCN process was being followed for modifications made to coal plant drawings.

We determined that when the DCN process was utilized, DCNs were generally in compliance with procedural



Cherokee Dam



requirements and drawings appeared to have been updated accordingly. However, we determined the DCN process was not always followed for modifications made to coal plant drawings. Specifically, we found (1) modified drawings on-site that had not been updated through DCNs; (2) hand-illustrated drawings utilized in lieu of approved, computer-generated drawings; (3) outdated drawings potentially referenced in the course of work; and (4) reluctance at the sites to initiate the DCN process. Additionally, we identified opportunities for improvement related to (1) training, (2) drawing descriptions, (3) communication of DCN status and drawing availability, and (4) outdated standard programs and processes and intergroup agreements. TVA management agreed with our recommendations to address the DCN issues.

## **Accuracy of Payments Made for Workers' Compensation Benefits**

Based on a finding in a previous evaluation where we determined TVA does not verify the accuracy of the amounts billed by the Department of Labor (DOL) for hearing loss claims, we evaluated the process TVA uses to verify the accuracy of payments made to the DOL for workers' compensation benefits. We determined TVA did not have a formal process to verify the accuracy of payments made for schedule awards.<sup>3</sup> Although TVA's Sarbanes-Oxley Act (SOX) controls verified certain aspects of the DOL billings, the SOX controls did not include steps to verify the accuracy of the elements in award of compensation letters and, as a result, some errors were not identified. Additionally, we found TVA was not performing a SOX control related to providing a summary of workers' compensation charges to the applicable organizations for review. TVA management took action to address our recommendation to validate the accuracy of the payments made to the DOL.

## **Nuclear Fatigue Rule - Browns Ferry Nuclear Plant**

Due to the importance of employees being able to safely and competently perform their duties, we performed an evaluation to determine if TVA is in compliance with the Nuclear Fatigue Rule (NFR) at BFN. The NFR specifies minimum days off for covered individuals, as well as overtime rules for how many hours can be worked in specific time periods. Our review of sampled employee and contract employee work hours and badging records for FYs 2017 and 2018 identified no violations of NFR minimum days off or overtime rules. However, we identified areas of deficiencies with BFN's performance of (1) fatigue assessments and (2) NFR compliance reviews. Additionally, we identified areas for improvement related to NFR work-schedule tracking. TVA management agreed with our recommendations to address the issues.

## **Nuclear Outage Material Management**

Due to the risk of incorrectly dispositioning nuclear outage materials, we performed an evaluation to determine if TVA is managing designated outage material following an outage to maximize use and minimize cost. We determined TVA generally managed designated outage materials to maximize use and minimize cost. However, we identified opportunities for improvement related to (1) documentation for material returns and (2) a TVA inventory database control. TVA management agreed with our recommendations.

<sup>3</sup> A schedule award is a compensation benefit provided to federal employees for specified periods of time for the permanent loss or loss of use of certain members, functions, and organs of the body.

## Winning Performance Individual Performance Multiplier

In 2016, TVA implemented an individual performance multiplier (IPM) that allows managers to adjust employees' annual Short-Term Incentive lump-sum payouts based on performance. Since alignment between the multiplier and performance are important to the success of the initiative, we conducted an evaluation to determine if IPMs were in alignment with performance ratings. We reviewed 5,235 adjustable payouts made in FYs 2017 and 2018 and found most of the IPM adjustments were in alignment with overall performance ratings. However, 59 adjustments made in FYs 2017 and 2018 fell outside the recommended ranges established in the IPM guideline. Although the explanations for the exceptions were reasonable, we determined TVA could facilitate supervisors' administration of the process by revising the guidelines being used for the calculation of the IPM. TVA management is evaluating the benefit of the process change.

## System Operations Center Site Selection

In 2011 and 2016, TVA retained a consultant to conduct studies on TVA's existing SOC facilities. The contractor determined the existing SOC did not meet current industry standards. TVA decided to build a new facility to serve as the primary control center and address existing security and computer room limitations. Based on the importance of the SOC to the transmission system, we performed an evaluation of the site-selection process to determine if the selected site (1) met regulatory requirements and established criteria and (2) provided financial or operational benefits over other potential locations considered.

We determined the site selected for the SOC met established criteria and regulatory requirements. However, we could not determine if the site selected provided financial or operational benefits over

other potential locations considered. We identified several issues in the site-selection process, including (1) inaccurate analysis, (2) cost considerations that were high level and not documented, and (3) duplicate parcels. As a result, we determined four of the final six sites were incorrectly considered for selection by TVA because they did not meet one or more of TVA's established criteria. Additionally, we identified one site that was prematurely eliminated from consideration that should have been included in TVA's final site selection evaluation. TVA management reviewed our findings and performed additional analysis and concluded the original site it had selected was still the desirable location. Management agreed to address our recommendation for applying lessons learned to improve its future siting processes.

## ORGANIZATIONAL EFFECTIVENESS

During this semiannual reporting period, the Organizational Effectiveness group completed six organizational effectiveness evaluations, including two Hydro Generation regions; Nuclear Security; Transmission Operations, Reliability and SCADA;<sup>4</sup> IT Corporate Solutions; and Shawnee Fossil Plant. In addition, we conducted two follow-up reviews to previous organizational effectiveness reviews of Supply Chain – Materials and Transportation Management and Supply Chain – Sourcing.

## Hydro Generation

Hydro Generation operates 29 conventional hydroelectric dams and a pumped storage facility, which collectively includes 113 generating units, located throughout the Tennessee Valley. These units account for 5,182 megawatts of net dependable capacity.<sup>5</sup> We assessed the strengths and risks that could impact the organizational effectiveness of Hydro Generation's Northeast and Southwest regions. In both regions we identified several strengths, including (1) organizational alignment, (2) positive interactions within and outside of each group,

<sup>4</sup> The acronym, SCADA, is defined as Supervisory Control and Data Acquisition.

<sup>5</sup> Net dependable capacity is the amount of power a dam can produce on an average day, minus the electricity used by the dam itself.







(3) leadership, and (4) positive ethical culture. However, we also identified risks that could impact each region's effectiveness:

- **Hydro Generation – Northeast**

Hydro Northeast generation, which includes 13 hydro plants, accounts for approximately 27 percent of Hydro Generation's total net dependable capacity. We identified risks that could impact Hydro Northeast's effectiveness, including perceptions of (1) inadequate staffing and (2) lack of accountability.

- **Hydro Generation – Southwest**

Hydro Southwest generation, which includes five hydro plants, accounts for approximately 30 percent of Hydro Generation's total net dependable capacity. We identified risks that could impact Hydro Southwest's effectiveness, including (1) inadequate resources such as training, materials, and staffing and (2) perceptions of upper management support related to spending and lack of hydro experience.

TVA management is taking action to address our recommendations for remediating the identified risks.

## Nuclear Security

Nuclear Security's responsibility is to provide oversight and technical support to TVA's Nuclear organization in the area of security. In addition, within Nuclear Security, Access Services is responsible for unescorted access authorization and providing overall direction for the Nuclear Access Authorization and Fitness for Duty programs. Nuclear Security also interfaces with federal agencies on security-related issues and regulations and participates in industry working groups to assess TVA Nuclear's security operations. Our assessment of strengths and risks that could impact Nuclear Security's organizational effectiveness identified strengths related to (1) organizational alignment, (2) teamwork, (3) ethical culture, and (4) front-line management support. However, we also identified risks that could impact the effectiveness of Nuclear Security, including (1) alignment risks related to achievement of the Nuclear vision and (2) risks to effective execution of responsibilities. TVA management agreed with our findings and recommendations to address the identified risks.







Cumberland Fossil Plant

## Transmission Operations, Reliability, and SCADA

The mission of TVA's Transmission Operations, Reliability, and SCADA (TORS) is to "ensure reliable and compliant transmission system operations through maintaining configuration control over TVA transmission grid, real-time operations of transmission assets, and response to emergency transmission outages." Our assessment of strengths and risks that could impact TORS' organizational effectiveness identified strengths related to (1) organizational alignment for the majority of TORS' personnel, (2) teamwork within departments in TORS, and (3) leadership of first-line supervisors (management level directly above nonmanagerial workers). However, we also identified risks that could impact TORS' effectiveness, including (1) organizational reporting issues with two functions in TORS, (2) career development opportunities in two departments, (3) a perceived lack of accountability of employees in one department, (4) perceptions of inadequate staffing in two departments, and (5) outage scheduling challenges. TVA management agreed with our findings and recommendations to address the identified risks.

## IT Corporate Solutions

IT Corporate Solutions' mission is to "deliver proactive, innovative, cost conscious solutions built on relationships of trust and respect that allow our partners to realize untapped value." Our assessment of strengths and risks that could impact Corporate Solutions' organizational effectiveness identified strengths related to (1) organizational alignment in two departments, (2) positive interactions with management in one department, and (3) teamwork within and outside of Corporate Solutions' departments. However, we also identified risks that could impact IT Corporate Solutions' effectiveness, including (1) risks to effective organizational alignment to IT strategy, (2) engagement issues with management in two departments, and (3) risks to effective execution of the mission related to lack of customer focus and resource issues. TVA management agreed with our recommendations to address the identified risks.

## Shawnee Fossil Plant

Shawnee Fossil Plant (SHF) is one of six coal plants within TVA's Power Operations. Power Operations' mission is to provide low-cost, reliable generation while keeping people safe and ensuring compliance with environmental regulations. SHF currently contains nine generating units with a summer net capacity of 1,206 megawatts. Our assessment of the strengths and risks that could impact SHF's organizational effectiveness identified strengths, including (1) organizational alignment, (2) teamwork within working groups and with other SHF departments, (3) effective leadership, (4) positive ethical culture, and (5) resources necessary for job execution. However, we also identified a risk related to inadequate asset maintenance activities that could impact SHF's effectiveness. TVA management is taking action to address our recommendations for mitigating the identified risks.





## Supply Chain

TVA Supply Chain's responsibility is to "provide materials and services to strategic business units at lowest total cost of ownership and manage and optimize sourcing, procurement, freight, inventory, material distribution, and TVA fleet to ensure reliable operation." We previously issued reports on strengths and risks that could impact the organizational effectiveness of two groups within Supply Chain: Materials and Transportation Management and Sourcing. Each report included recommendations to address areas for improvement. We performed follow-up reviews to assess management's actions to address these risks.

- **Materials and Transportation Management**

We determined Materials and Transportation Management has taken actions to address the remaining risks outlined in our initial organizational effectiveness evaluation. Those risks related to management behaviors, performance management, and cross-functional business unit risks.

- **Sourcing**

We determined Sourcing has taken actions to address the remaining risks outlined in our initial organizational effectiveness evaluation. Those risks related to leadership and workload.

## SPECIAL PROJECT

### Groundwater Monitoring at Kingston Fossil Plant

We contracted with ATC Group Services LLC (ATC)<sup>6</sup> to conduct a review of groundwater monitoring activities at the Kingston Fossil Plant Peninsula Disposal Unit to determine the quality of the program and adherence to regulatory standards. On December 22, 2008, an estimated 5.4 million cubic yards of coal ash spilled from the former coal ash storage dredge cell into the Emory, Clinch, and Tennessee Rivers and associated tributaries. As a result, the



*Kingston Fossil Plant*

Environmental Protection Agency (EPA) and Tennessee Department of Environment and Conservation (TDEC) instated groundwater monitoring programs to monitor and mitigate impacts from the spill.

TDEC manages coal combustion residuals (CCR) under Solid Waste regulations. In April 2015, the EPA passed a rule to regulate the disposal of CCR as solid waste, and TVA has established a Groundwater Monitoring Program to comply with those requirements. ATC stated that in their opinion, monitoring activities performed at TVA Kingston Fossil Plant Peninsula Disposal Unit are in adherence with the EPA and the TDEC guidelines. Furthermore, ATC stated the work performed appears to be of high quality and does not likely result in any discrepancies for the program. All work pertaining to this review was conducted by ATC.

<sup>6</sup> ATC provides integrated environmental consulting and engineering services.











# **SUMMARY OF REPRESENTATIVE INVESTIGATIONS**





*This reporting period, we opened 101 cases and closed 83. Our investigative results include one individual's sentencing in federal court, a conviction, and recoveries in one case exceeding \$450,000. Highlights of this semiannual period follow.*

## **Former Nuclear Technician Sentenced on Theft Conviction**

On September 26, 2018, Tristan James Robinson, former BFN Technician/Clerk, was charged in a two-count federal indictment in the Northern District of Alabama. The first count of the indictment charged Mr. Robinson with stealing TVA measuring/testing equipment with an aggregate value exceeding \$1,000. The second count charged him with making false statements by minimizing the number of items he took from TVA then sold on eBay. On November 26, 2018, Mr. Robinson pled guilty to the first count of the indictment.

Mr. Robinson's plea agreement states that one of his TVA duties was to calibrate equipment, which provided him access to the BFN Measuring and Testing Equipment work area. During an interview with investigators, he provided a list of all items he had taken from TVA and sold, which consisted of approximately 20 items valued at roughly \$20,000.

Per Mr. Robinson's plea agreement, he listed 121 items for sale on his eBay account consistent with the TVA property he admitted selling. The investigation determined the equipment being sold were items TVA routinely purchases and uses at BFN. In total, he sold 68 items on eBay for \$69,133 and attempted to sell another 18 items valued at \$22,024.

At his April 8, 2019, sentencing hearing, Mr. Robinson was ordered to pay \$87,633 in restitution to TVA, and a criminal forfeiture was ordered in the same amount. He is to serve a probationary period of five years, to include six months of home detention.

This investigation was conducted with assistance from TVA Police and Emergency Management.

## **Former Contractor Employee Pleads Guilty**

On September 10, 2019, Cecil Brian Oswald, former contractor employee at Cumberland Fossil Plant (CUF), pled guilty in federal court to a July 22, 2019, one-count Information charging him with falsifying documentation to receive temporary living allowance (TLA) payments over approximately a four-year period.

TLA payments are provided to qualifying TVA and contractor personnel as a means of reimbursing expenses for those who are on-assignment a given distance from their permanent residence. Mr. Oswald's plea agreement stipulates that on nine occasions during the October 2013 - January 2018 timeframe, he submitted documents certifying his permanent residence was over 75 miles from his assigned TVA worksite, which was the distance required to receive TLA reimbursement. In reality, Mr. Oswald's permanent residence was too close to CUF for him to qualify for these payments. As a result of his false statements, he obtained TLA payments from TVA of approximately \$87,402 to which he was not entitled.

Mr. Oswald's sentencing is scheduled for January 10, 2020.

## **TVA Recovers Funds Exceeding \$450,000 and TVA OIG Identifies Waste of Over \$1 Million**

The OIG received an allegation that a TVA employee gave preferential treatment to a contractor because of a close personal relationship, giving that contractor an unfair advantage over others. The complaint was unsubstantiated. However, the OIG found that TVA made a decision to change (1) business units overseeing the relevant contract work at CUF and Kingston Fossil Plant, (2) from a Design-Bid-Build model to an Engineering,

Procurement, and Construction model, and (3) ultimately, change contractors responsible for the work. Upon further review, an overpayment of \$458,966 to the initial contractor was identified because payment had been made for work not yet performed. This overpayment was credited back to TVA. Additionally, the model and contractor changes resulted in a significant amount of work performed by previous contractors being unusable under the new model. We estimated TVA paid more than \$1 million for this work that could not be utilized under the new contracting model.

## Employee Ethics Investigation Results in Management Action

Investigation revealed a TVA manager, who served as the field invoice approver and provided oversight for work provided by a TVA contractor company, negotiated an employment opportunity with the contractor while employed by TVA.

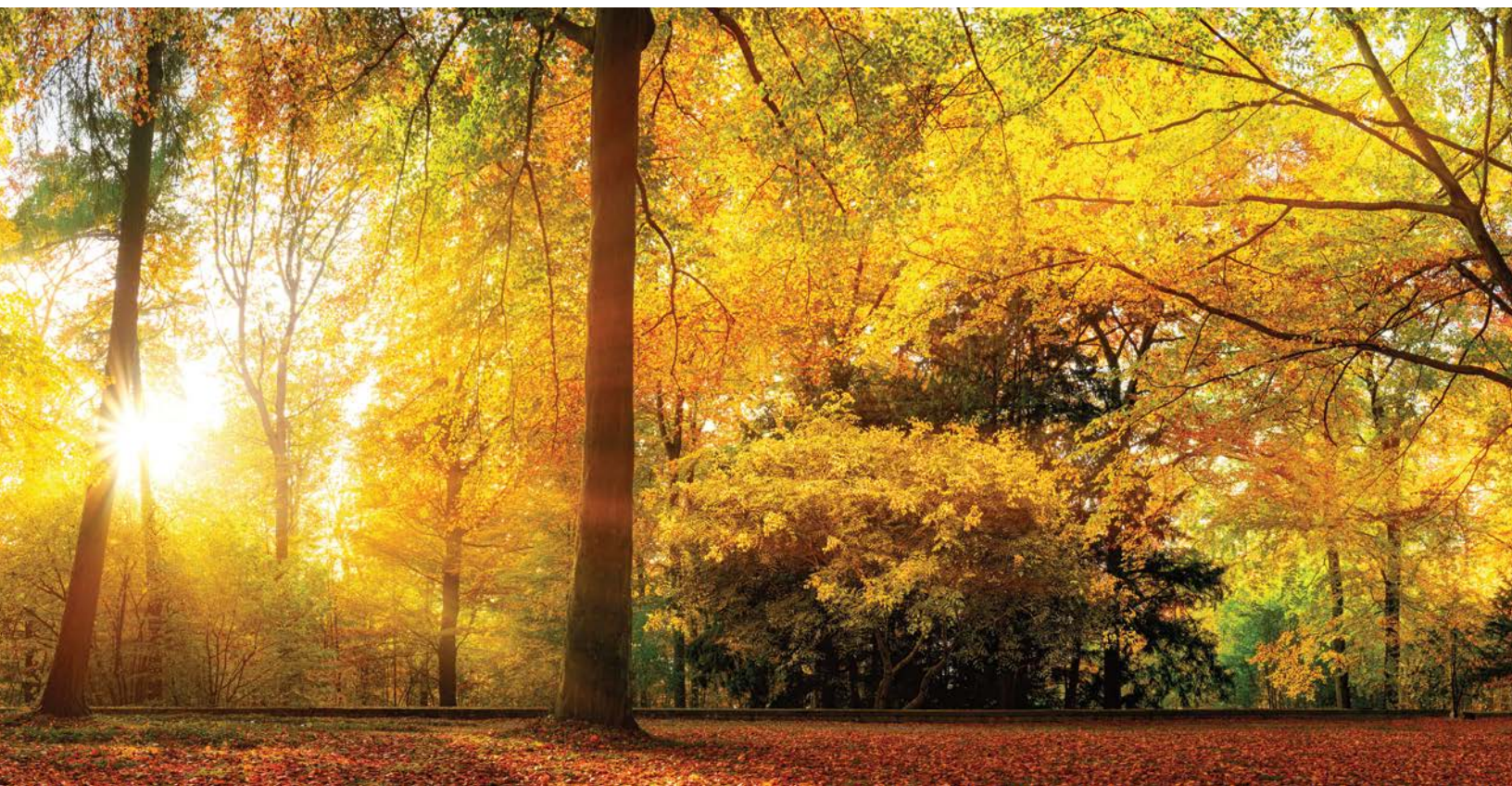
In addition to approving invoices, the employee substantially participated in the company's contract from the initial award throughout execution. Further, management allowed this individual to continue approving invoices from the company despite knowing he was negotiating employment with it.

The employee subsequently went to work for the same contractor company; and, post-TVA employment, he represented the company to TVA on the same contract. He has since become employed by another TVA contractor for which he also participated substantially in matters impacting that contractor as a TVA employee, raising continued questions.

As a result of our Report of Administrative Inquiry, the former employee's organization has taken, or plans to implement, training, internal controls, and administrative actions, to include clear restrictions on communications with the former employee. This case was referred to the U.S. Attorney's Office, which declined prosecution.

## Fraud Risk Assessments

As initially established by the IG Act of 1978, the mission of TVA OIG is to promote economy, efficiency, and effectiveness in the prevention and detection of fraud, waste, and abuse. Today, this is primarily accomplished through the functions of audits, evaluations, and investigations. In addition to the proactive, risk-based nature of audits and evaluations and the reactive nature of investigations, the OIG also conducts Fraud Risk Assessments at the request of TVA.





The Fraud Risk Assessment process identifies potential fraud schemes, existing controls in place to prevent fraud from occurring, and the potential for tightening fraud prevention controls to reduce future risk. The objective is to identify control weaknesses and associated opportunities for improvement. The OIG recognizes the significance of potential fraud and utilizes this platform in addition to audits, evaluations, and investigations to identify fraud and weak controls.

Fraud Risk Assessments are opportunities for the OIG to partner with various business units at TVA for the exchange of thoughts related to potential risk. The OIG facilitates these sessions while offering insight and education related to how fraud has or could occur and some associated considerations. TVA participants are encouraged to brainstorm potential fraud schemes resulting in a collaborative experience for purposes of helping TVA.

In FY 2019, the OIG conducted various fraud risk initiatives. The OIG facilitated five Fraud Risk Assessments around the Tennessee Valley. These included decommissioning efforts at the TVA Allen Fossil Plant, Field Support and Customer Services within the TVA EnergyRight® Program

for Business and Industry, Operations at the TVA Allen Combustion Turbine Plant, and both the North Alabama District and Administrative groups within TVA Customer Delivery. Additionally, OIG Investigations and OIG Contract Audit groups partnered to provide fraud and contract-specific awareness training to TVA Contract Management within the TVA Transmission group.

In each Fraud Risk Assessment, various risk areas are deliberated and fraud schemes considered. From that, various opportunities to strengthen internal controls and reduce potential fraud were identified by the respective personnel within each group. Some of the opportunities included: enhanced oversight in contracts and inventory, vigilance in security measures, the review of accountability measures, coordination with other TVA business units, and the refinement of procedures, processes, pricing schedules, specifications, and accountability documentation.

Dating back to 2005, the OIG has a goal of conducting four Fraud Risk Assessments annually. In conjunction with TVA, program areas of potential concern or risk will be identified, and the associated Fraud Risk Assessment session conducted throughout the year.





# LEGISLATION AND REGULATIONS





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

During this reporting period, TVA OIG has been tracking:

## **H.R. 1847 - “INSPECTOR GENERAL PROTECTION ACT”**

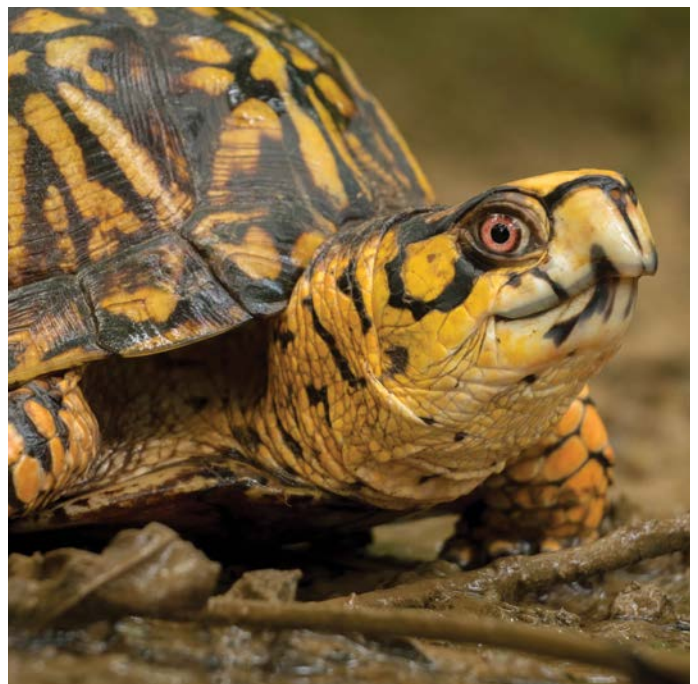
H.R. 1847 was passed by the House, received in the Senate, and referred to the Senate Committee on Homeland Security and Governmental Affairs in July. It amends Section 3(b) and 8(G)(e)(2) of the IG Act, requiring notification to Congress when IGs are placed in paid or unpaid duty status. A notification requirement has been a CIGIE legislative priority. The bill also includes a provision requiring the President to notify Congress as to why the President has failed to make a nomination of an IG within 210 days of a vacancy and a target date for such nomination. The TVA IG position has been vacant for more than 210 days.

## **S.2315 - “THE WHISTLEBLOWER ACT”**

S. 2315 was introduced in the Senate in July 2019 and referred to the Senate Committee on Homeland Security and Governmental Affairs. Companion legislation H.R. 4147 was introduced in the House in August and referred to the House Committee on Oversight and Reform. The bills would implement a CIGIE legislative priority by amending 41 U.S.C. 4712 to clarify that subgrantees and subcontractors are protected from whistleblower retaliation. TVA management takes the position that whistleblower retaliation protections included in 41 U.S.C. 4712 do not currently apply to TVA, and it does not appear that the legislation would expand any protections available to TVA subgrantees and subcontractors.

## **H.R. 4440 - “DEADLY FORCE INDEPENDENT REVIEW ACT OF 2019”**

H.R. 4440 was introduced on September 20, 2019, and referred to the House Committee on the Judiciary. The bill would require federal law enforcement agencies to conduct an investigation every time “deadly force is used” and to establish protocols for such investigations. If the deadly force investigation is not done by an OIG, the agency’s OIG must review the deadly force investigation. The bill also requires CIGIE to: (1) develop guidelines to report and investigate deadly force incidents; and (2) submit quarterly reports to the House Committee on Oversight & Reform, the Senate Homeland Security and Governmental Affairs Committee, the House and Senate Judiciary Committees, and the Comptroller General. The reports must describe all instances that federal law enforcement officers used deadly force, any referral for criminal prosecution, and characteristics of the law enforcement officer and target.





# APPENDICES





## INDEX OF REPORTING REQUIREMENTS UNDER THE INSPECTOR GENERAL ACT

REPORTING	REQUIREMENT	PAGE OR APPENDIX
Section 4(a)(2)	Review of legislation and regulations	36 - 37
Section 5(a)(1)	Significant problems, abuses, and deficiencies	16 - 35
Section 5(a)(2)	Recommendations with respect to significant problems, abuses, and deficiencies	16 - 35
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 that have resulted	Appendix 5
Section 5(a)(5) and 6(b)(2)	Summary of instances where information was refused	None
Section 5(a)(6)	Listing of audit and evaluation reports	Appendix 2
Section 5(a)(7)	Summary of particularly significant reports	16 - 35
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 9
Section 5(a)(15)	List of outstanding recommendations from any peer review conducted by another Office of the Inspector General, including a statement describing the status of the implementation and why implementation is not complete	None

<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.

# APPENDIX 1

## 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	Appendix 10
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 employee <sup>2</sup> were substantiated	None
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 6

<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.



## OIG AUDIT REPORTS • ISSUED DURING THE SIX-MONTH PERIOD ENDED SEPTEMBER 30, 2019

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
CONTRACT AUDITS				
2018-15577 08/07/2019	Sargent & Lundy, LLC - Contract Nos. 12285 and 8444	\$11,686,244	\$0	\$0
FINANCIAL AND OPERATIONAL AUDITS				
2018-15573 09/11/2019	Executive Travel	\$0	\$0	\$0
2019-15634 09/11/2019	Timely Access Removal	0	0	0
2019-15624 09/17/2019	Employee Recognition Expenditures	0	0	0
INFORMATION TECHNOLOGY AUDITS				
2018-15598 04/16/2019	Information Systems Categorization Process	\$0	\$0	\$0
2018-15607 05/29/2019	Enhanced E-Mail and Web Security Compliance	0	0	0
2019-15636 08/26/2019	Transmission System Perimeter Attacks	0	0	0
2018-15530 09/24/2019	Hydro Generation Cybersecurity Controls	0	0	0
TOTAL AUDITS (8)		\$11,686,244	\$0	\$0

## APPENDIX 2

### OIG EVALUATION REPORTS • ISSUED DURING THE SIX-MONTH PERIOD ENDED SEPTEMBER 30, 2019 (CONTINUED)

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
EVALUATIONS				
2018-15579 04/12/2019	Coal Plant Emergency Preparedness and Response	\$0	\$0	\$0
2018-15585 04/17/2019	Gas Plant Emergency Preparedness and Response	0	0	0
2018-15605 04/17/2019	Qualifications for Safety-Sensitive Positions in Power Operations	0	0	0
2018-15603 05/15/2019	Reliability of Inventory Data in Maximo	0	0	0
2018-15581 05/16/2019	Coal Plant Work Management	0	0	0
2018-15587 05/24/2019	Coal Operations' Design Change Notice Process	0	0	0
2018-15591 06/12/2019	Accuracy of Payments Made for Workers' Compensation Benefits	0	0	0
2018-15596 06/21/2019	Nuclear Fatigue Rule - Browns Ferry Nuclear Plant	0	0	0
2018-15601 09/19/2019	Nuclear Outage Material Management	0	0	0
2019-15641 09/24/2019	System Operations Center Site Selection	0	0	0
2019-15626 09/26/2019	Winning Performance Individual Performance Multiplier	0	0	0
ORGANIZATIONAL EFFECTIVENESS				
2019-15638 05/15/2019	Follow-Up to Materials Management Organizational Effectiveness	0	0	0
2018-15610 05/16/2019	Organizational Effectiveness - IT Corporate Solutions	0	0	0
2018-15609 05/22/2019	Organizational Effectiveness - Transmission Operations	0	0	0
2018-15572 07/17/2019	Organizational Effectiveness - Nuclear Security	0	0	0
2019-15627-01 08/05/2019	Organizational Effectiveness - Hydro Generation - South Western Region	0	0	0
2019-15627-02 08/23/2019	Organizational Effectiveness - Hydro Generation - North Eastern Region	0	0	0
2019-15656 09/11/2019	Follow-Up to Sourcing Organizational Effectiveness	0	0	0
2019-15571 09/19/2019	Organizational Effectiveness - Shawnee Fossil Plant	0	0	0
TOTAL EVALUATIONS (19)		\$0	\$0	\$0

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



## OIG SPECIAL PROJECT • ISSUED DURING THE SIX-MONTH PERIOD ENDED SEPTEMBER 30, 2019 (CONTINUED)

Report Number and Date	Title	Questioned Costs	Unsupported Costs	Funds Put To Better Use
SPECIAL PROJECT				
2019-17234 08/22/2019	Groundwater Monitoring Kingston Fossil Plant	\$0	\$0	\$0
TOTAL SPECIAL PROJECT (1)		\$0	\$0	\$0



Apalachia Dam

## APPENDIX 3

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

Audit Reports	Number of Reports	Questioned Costs	Unsupported Costs
A. For which no management decision has been made by the commencement of the period	0	\$0	\$0
B. Which were issued during the reporting period	1	\$11,686,244	\$0
Subtotal (A+B)	1	\$11,686,244	\$0
C. For which a management decision was made during the reporting period	1	\$11,686,244	\$0
1. Dollar value of disallowed costs	1	\$11,686,244	\$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

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	1	\$381,000
B. Which were issued during the reporting period	0	\$0
Subtotal (A+B)	1	\$381,000
C. For which a management decision was made during the reporting period	1	\$381,000
1. Dollar value of recommendations agreed to by management	1	\$239,000
2. Dollar value of recommendations not agreed to by management	1 <sup>1</sup>	\$142,000
D. For which no management decision has been made by the end of the reporting period	0	\$0

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

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

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

## APPENDIX 4

### RECOMMENDATIONS INCLUDED IN A PREVIOUS SEMIANNUAL REPORT AND AWAITING IMPLEMENTATION

At the end of the semiannual period, final corrective action was not complete on 25 recommendations associated with ten audit and three evaluation reports and one special project 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 08/07/2014	<b>Tennessee Valley Authority (TVA) Environmental Risk Management</b>  TVA agreed to update their Environmental Management System to better describe environmental review processes and responsibilities. TVA expects to complete final action by April 30, 2020.
2017-15453 06/13/2018	<b>TVA's Privacy Program</b>  TVA agreed to encrypt certain storage arrays. TVA expects to complete final action by December 6, 2019.
2017-15451 09/13/2018	<b>Key Sarbanes-Oxley Financial Spreadsheets</b>  TVA agreed to (1) review and update the critical spreadsheet certification process to facilitate consistent formatting and classification, (2) map critical spreadsheets by business process, (3) utilize a commercially available tool that includes inherent functionality for version control and storage for backup purposes, (4) incorporate end user computing best practices in control owner briefings and other trainings, (5) create a repository for all critical spreadsheets, and (6) document and review shared accounts on a regular basis. TVA expects to complete final action by March 31, 2020.
2018-15534 10/11/2018	<b>EnergyRight® Solutions Loan Obligations and Receivables</b>  TVA agreed to (1) develop and implement procedures to review program data on a regular basis to identify delinquent loans, (2) revise future contracts between TVA and local power companies to limit TVA's responsibility for interest accrued on delinquent loans, (3) develop procedures to review program data on a regular basis to reconcile loan balances, and (4) update guidelines specifying what loan documentation be retained. TVA expects to complete final action by October 11, 2019.
2018-15529 11/14/2018	<b>Ransomware</b>  TVA agreed to continue with the implementation of its Privileged Access Management Tool, CyberArk, with the systems identified in the project scope on TVA's corporate network-managed systems. TVA expects to complete final action by December 31, 2019.
2018-15565 12/17/2018	<b>Review of Labor and Labor Markup Rates</b>  TVA agreed to request revised (1) labor markup rates for use in negotiating reduced labor markup rates and (2) labor rate ranges reflective of the actual minimum and maximum salary costs for each labor classification. TVA expects to complete final action by December 17, 2019.
2018-15226 12/18/2018	<b>2018 Federal Information Security Modernization Act</b>  TVA agreed to complete development of policies and procedures for the specific requirements within the information security continuous monitoring strategy. TVA expects to complete final action by December 6, 2019.
2018-15542 01/25/2019	<b>GE Mobile Water, Inc. (GE) - Contract No. 75130</b>  TVA agreed to (1) work with GE toward the goal of ensuring GE maintains adequate documentation in regards to fee calculation and (2) ensure the "follow on" contract with GE requires 6-year document retention. TVA expects to complete final action by January 25, 2020.
2018-15531 01/29/2019	<b>PLUS Personally Identifiable Information Access Control</b>  TVA agreed to monitor the Human Resource system for changes made by Human Resource system administrators and ensure access reviews of users with elevated access beyond self-service are consistently performed by the appropriate TVA managers. TVA expects to complete final action by October 25, 2019.
2019-15622 03/28/2019	<b>Human Capital Management Solution</b>  TVA agreed to update processes to document risk mitigation actions conducted in support of future IT projects. TVA expects to complete final action by March 31, 2020.



## 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
2016-15445-01 05/18/2017	<b>Organizational Effectiveness - Human Resources: Business Office</b> TVA agreed to provide the Washington, D.C., Equal Employment Opportunity Commission Office documentation relative to the reporting structure for TVA Equal Opportunity Compliance department. TVA expects to complete final action by December 31, 2019.
2017-15516 07/30/2018	<b>Heat Rate Input Calculations</b> TVA stated it is in the process of implementing thermal performance modeling software, allowing them to automatically monitor unit performance, down to a component level; and calculate daily performance curves, eliminating the need for manual hourly calculations. TVA expects to complete final action by December 31, 2019.
2018-15558 09/26/2018	<b>Organizational Effectiveness - Paradise Combined Cycle Plant</b> TVA agreed to improve the training program at the Paradise Combined Cycle Plant and improve on the core competency of effective communication. TVA expects to complete final action by December 31, 2019.
Special Project Number and Date	Report Title and Actions Agreed to by Management to Resolve Recommendations
2016-16702 04/19/2017	<b>Assessment of Chilled Work Environment at TVA Watts Bar Nuclear Unit 1 by NTD Consulting Group, LLC</b> TVA conducted an independent nuclear safety culture (NSC) assessment for the Watts Bar Nuclear site. TVA developed actions based on the issues identified in the assessment. The actions were oriented toward both near-term mitigation of identified improvement areas as well as a sustainable improved NSC. Subsequently, TVA will re-administer an independent NSC assessment between 18 and 24 months after the original assessment. TVA expects to complete final action by October 31, 2019.



## APPENDIX 5

### INVESTIGATIVE REFERRALS AND PROSECUTIVE RESULTS

Referrals	
Reports Issued to TVA Management	16
Subjects Referred to U.S. Attorneys	9
Subjects Referred to State/Local Authorities	1
Results	
Subjects Indicted/Informations Filed	1
Subjects Convicted	1
Pretrial Diversions	0
Federal Referrals Declined	6
State/Local Referral Declined	1

**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 may include task force activities and joint investigations with other agencies.



## PREVIOUSLY UNDISCLOSED INVESTIGATIONS INVOLVING SENIOR AGENCY OFFICIALS

Case No.	Allegation and Disposition
13C16936	A manager benefitted personally from a contractor company's no-bid selection. Unsubstantiated.
18-0040	A contractor employee provides kickbacks to a manager to extend his/her contract with TVA. Unsubstantiated.
18-0281	Three managers concealed and misclassified work site fire and environmental incidents. Although we found incidents had been misclassified, management took corrective action as a result of our investigation, and allegations against the managers were unsubstantiated.
19-0082	A manager used a TVA credit card to book a hotel for a personal vacation. The use was inadvertent by hotel staff using the card on file from the manager's previous business trips, and the manager sought to correct the problem as soon as it was discovered. No misconduct was substantiated.
19-0113	A contractor company was chosen for TVA construction projects based on a personal relationship between a contract employee and a TVA manager. Unsubstantiated.
19-0130	An executive was aware of and assisted in concealing nepotism between two subordinates, and a concerned employee expected to be terminated for complaining about the situation. Unsubstantiated.
19-0191	A manager knowingly approved a contractor's falsified time and leave records. Unsubstantiated.
19-0235	A senior executive may have violated federal ethics laws related to negotiating post-employment while in the employ of the federal government. Unsubstantiated. (Referred to the U.S. Attorney's Office, which declined prosecution.)

**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.

# APPENDIX 7

## HIGHLIGHTS - STATISTICS

	SEPT 30, 2019	MAR 31, 2019	SEPT 30, 2018	MAR 31, 2018	SEPT 30, 2017
<b>AUDITS</b>					
<b>AUDIT STATISTICS</b>					
Carried Forward	16 <sup>1</sup>	17	21	18	15
Started	7	12	15	13	14
Canceled	(0)	(0) <sup>2</sup>	(0) <sup>3</sup>	(0)	(1)
Completed	(8)	(13)	(18)	(10)	(10)
In Progress at End of Reporting Period	16	16	17	21	18
<b>AUDIT RESULTS (Thousands)</b>					
Questioned Costs	\$11,686	\$0	\$6,155	\$6,829	\$4,672
Disallowed by TVA	\$11,686	\$0	\$6,155	\$6,829	\$5,080
Recovered by TVA	\$109	\$189	\$740	\$0	\$428
Funds to Be Put to Better Use	\$0	\$3,305	\$57,413	\$39,639	\$17,680
Agreed to by TVA	\$239 <sup>4</sup>	\$20,554	\$47,254	\$33,018	\$8,934
Realized by TVA	\$7,439 <sup>5</sup>	\$1,830	\$59,875 <sup>6</sup>	\$8,677	\$4,479
<b>OTHER AUDIT-RELATED PROJECTS</b>					
Completed	8	5	9	5	7
Cost Savings Identified/Realized	\$0	\$0	\$0	\$0	\$0
<b>EVALUATIONS</b>					
Completed	19	4	17	7	17
Cost Savings Identified/Realized (Thousands)	\$0	\$0	(\$104)	\$0	\$0
<b>SPECIAL PROJECTS</b>					
Completed	1	0	0	0	1
<b>INVESTIGATIONS <sup>7</sup></b>					
<b>INVESTIGATION CASELOAD</b>					
Opened	101	78	117	97	95
Closed	83	96	110	98	92
In Progress at End of Reporting Period	140	123	143	141	147
<b>INVESTIGATIVE RESULTS (Thousands)</b>					
Recoveries	\$569.3	\$87	\$86.4	\$6,250	\$3,730.7
Projected Savings	\$0	\$0	\$0	\$2,079.1	\$680
Fines/Penalties/Fees	\$0.1	\$0.3	\$0.2	\$0.7	\$20.5
Other Monetary Loss	\$1,511	\$0	\$30.7	\$40.8	\$0
Forfeiture(s) Ordered - Criminal	\$87.6	\$0	\$0	\$3,041.9	\$0
Forfeiture(s) Ordered - Civil	\$0	\$0	\$0	\$0	\$0
<b>MANAGEMENT ACTIONS</b>					
Disciplinary Actions Taken (Number of Subjects)	3	6	10	11	6
Counseling/Management Techniques Employed (Number of Cases)	15	15	20	7	9
Debarments	0	0	0	0	0
<b>PROSECUTIVE ACTIVITIES (Number of Subjects)</b>					
Referred to U.S. Attorneys	9	2	16	5	6
Referred to State/Local Authorities	1	2	0	0	1
Indicted/Informations Filed	1	1	1	2	8
Convicted	1	2	0	6	4
Pretrial Diversions	0	0	0	0	1

<sup>1</sup> Does not include one project that was postponed during the period.

<sup>2</sup> One project was postponed during the period.

<sup>3</sup> Ibid.

<sup>4</sup> Amount agreed to was identified in prior period audit.

<sup>5</sup> Includes amounts agreed to in a prior period.

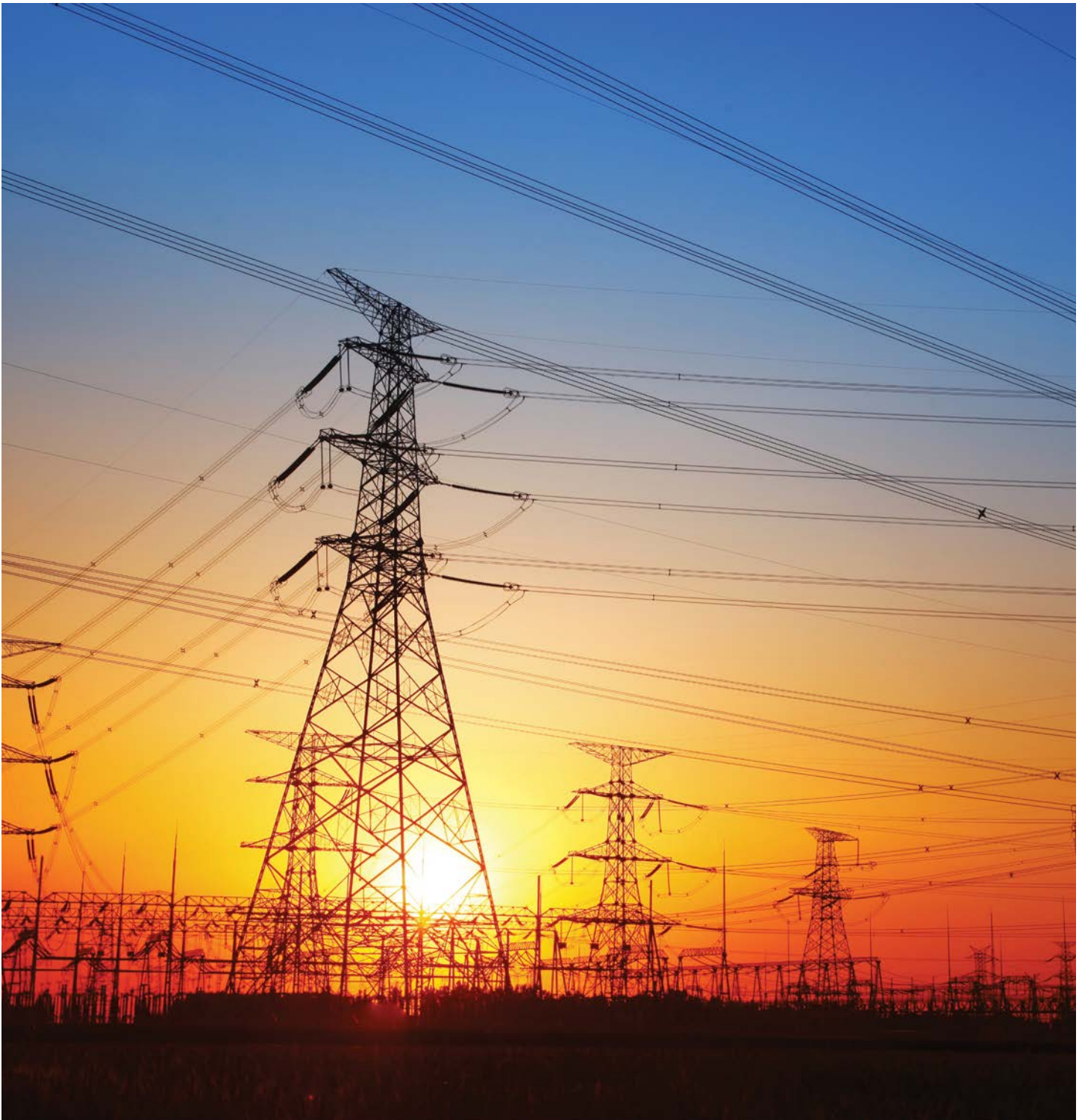
<sup>6</sup> Ibid.

<sup>7</sup> These numbers may include task force activities and joint investigations with other agencies.



## 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 one contract compliance audit with questioned costs totaling \$11,686,244. See page 17 for further discussion of the audit.



## APPENDIX 9

### PEER REVIEWS OF THE TVA OIG

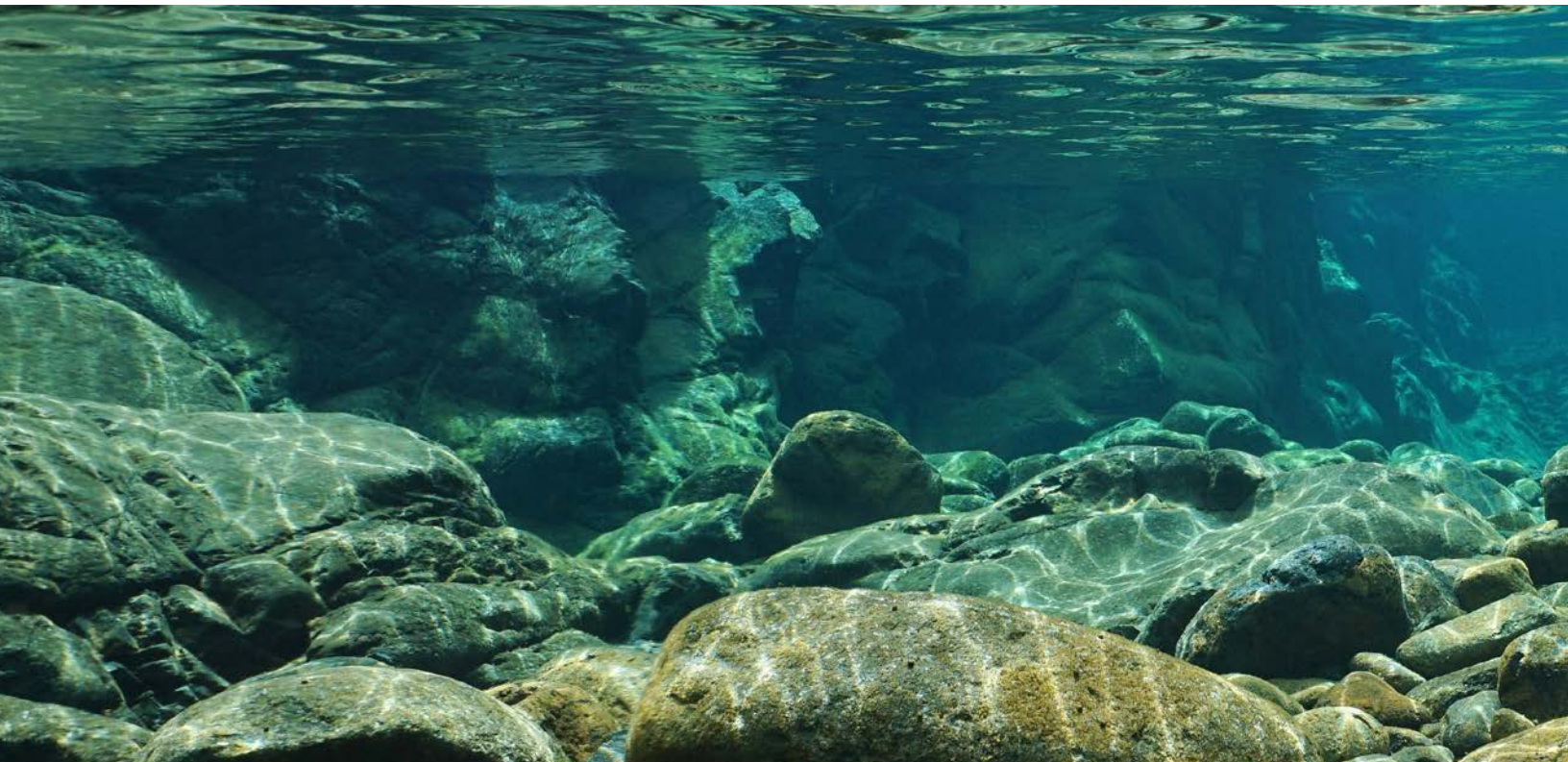
#### Audits Peer Review

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 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 [https://oig.tva.gov/peer\\_reports.html](https://oig.tva.gov/peer_reports.html).

The Pension Benefit Guaranty Corporation OIG is currently performing a peer review of our audit organization for the period ended September 30, 2019. Results of the ongoing review will be included in our next semiannual report.

#### Investigations Peer Review

Investigative operations undergoes a Quality Assessment Review at least once every three years. The Corporation for National & Community Service (CNCS) OIG completed a Quality Assessment Review of TVA OIG Investigative Operations on May 31, 2019. CNCS OIG found “. . . the system of internal safeguards and management procedures for the investigative function of TVA-OIG in effect for the period ending December 31, 2018, was in compliance with the quality standards established by CIGIE and the applicable Attorney General Guidelines. . . .” This confirmation is posted on our Web site at [https://oig.tva.gov/reports/2019\\_Investigations\\_Peer\\_Review.pdf](https://oig.tva.gov/reports/2019_Investigations_Peer_Review.pdf).





## PEER REVIEWS OF OTHER OIGS

### Audits Peer Review

The Tennessee Valley Authority (TVA) Office of the Inspector General (OIG) completed a peer review of the National Railroad Passenger Corporation (Amtrak) OIG audit operations. We issued our final report to the Amtrak Inspector General on April 15, 2019, in which we reported that in our opinion, the system of quality control for the audit organization of Amtrak, in effect for the 12-month period ended September 30, 2018, had been suitably designed and complied with to provide Amtrak with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Accordingly, the Amtrak OIG received a peer review rating of pass. Amtrak OIG has posted its peer review report on its Web site at <https://amtrakoig.gov/reading-room-documents/peer-review/external-peer-review-amtrak-audit-organization-april-2019>.

### Investigations Peer Review

TVA OIG Investigations completed a peer review of Investigative Operations of the Board of Governors of the Federal Reserve System and the Consumer Financial Protection Bureau OIG (Board-CFPB-OIG) during this semiannual period. We issued our final report to the Board-CFPB-OIG on August 9, 2019. We reviewed the organization's internal safeguards and management procedures in effect for the period ending February 28, 2019, and found the organization in compliance with the quality standards established by the Council of the Inspectors General on Integrity and Efficiency and other applicable guidelines and statutes. The Board-CFPB-OIG has posted its peer review report on its Web site at <https://oig.federalreserve.gov/reports/peer-review-investigative-operations-aug2019.pdf>.





# 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 Inspector General questions because (1) of an alleged violation of a law, regulation, contract, grant, 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.

Amtrak .....	National Railroad Passenger Corporation
ATC .....	ATC Group Services LLC
BFN .....	Browns Ferry Nuclear Plant
BOD .....	Binding Operational Directive
CCR .....	Coal Combustion Residuals
CIGIE .....	Council of the Inspectors General on Integrity and Efficiency
CNCS .....	Corporation for National & Community Service
CUF .....	Cumberland Fossil Plant
DCN .....	Design Change Notice
DHS .....	Department of Homeland Security
DOJ .....	U.S. Department of Justice
DOL .....	Department of Labor
EPA .....	Environmental Protection Agency
FIPS .....	Federal Information Processing Standards
FTR .....	Federal Travel Regulation
FY .....	Fiscal Year
IG .....	Inspector General
IPM .....	Individual Performance Multiplier
IT .....	Information Technology
M .....	Memorandum
NFR .....	Nuclear Fatigue Rule
NIST SP .....	National Institute of Standards and Technology Special Publication
OIG .....	Office of the Inspector General
OMB .....	U.S. Office of Management and Budget
SCADA .....	Supervisory Control and Data Acquisition
SHF .....	Shawnee Fossil Plant
SOC .....	System Operations Center
SOX .....	Sarbanes-Oxley Act
TDEC .....	Tennessee Department of Environment and Conservation
TLA .....	Temporary Living Allowance
TORS .....	Transmission Operations, Reliability, and SCADA
TVA .....	Tennessee Valley Authority



# TVA OIG VALUES

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

**Independence**

**Integrity**

**Accountability**

**Trusting Relationships**

**Effective Communications**

**Continuous Improvement**







## 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, TVA OIG's hotline. 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](http://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

  
**A hotline for reporting anonymous and confidential concerns**  
[www.oigempowerline.com](http://www.oigempowerline.com)  
**Toll-Free 855-882-8585**



**We investigate fraud, waste, and abuse in TVA programs and operations. Examples include:**

- **Contract Fraud**
- **Environmental Crimes**
- **Healthcare/Prescription Drug Fraud**
- **Employee Misconduct**
- **Conflict of Interest**
- **Workers' Compensation Fraud**

### Whistleblower Protection

Educates TVA employees about prohibitions on retaliation for protected disclosures, as well as the rights and remedies of employees who have been subjected to workplace retaliation for making protected disclosures. E-mails may be directed to: [whistleblowercoordinator@tva.oig.gov](mailto:whistleblowercoordinator@tva.oig.gov).





Office of the Inspector General  
TENNESSEE VALLEY AUTHORITY  
Semiannual Report  
April 1, 2019 - September 30, 2019