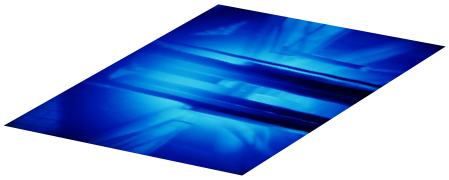
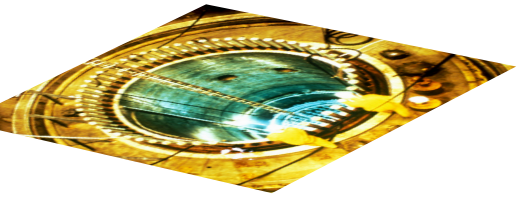
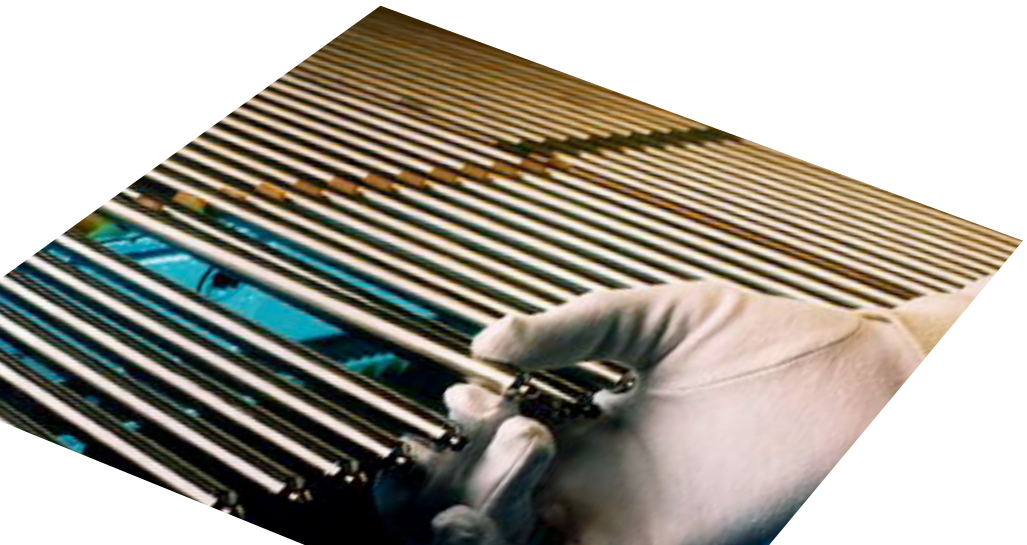




Semiannual Report to Congress

October 1, 2014–March 31, 2015



OIG VISION

OIG will identify the most critical risks and vulnerabilities in agency operations in a timely manner to allow the agency to take any necessary corrective action and to prevent and detect fraud, waste, and abuse.

OIG MISSION

The NRC OIG's mission is to independently and objectively audit and investigate programs and operations to promote effectiveness and efficiency, and to prevent and detect fraud, waste, and abuse.

COVER PHOTOS:

From top to bottom:

Blue glow of the "Cerenkov effect" from the fuel in a nuclear reactor.

Reactor core.

Calhoun Nuclear power plant. (Photo courtesy: Exelon)

Control room at a nuclear power plant.

Nuclear fuel rods.

A MESSAGE FROM THE INSPECTOR GENERAL

I am pleased to present this *Semiannual Report to Congress* on the activities and accomplishments of the Nuclear Regulatory Commission (NRC) Office of the Inspector General (OIG) from October 1, 2014, to March 31, 2015.

Our work reflects the legislative mandate of the Inspector General Act of 1978, as amended, which is to identify and prevent fraud, waste, and abuse through the conduct of audits and investigations relating to NRC programs and operations. In addition, the Consolidated Appropriations Act, 2014, provided that notwithstanding any other provision of law, the Inspector General of the Nuclear Regulatory Commission is authorized in 2014 and subsequent years to exercise the same authorities with respect to the Defense Nuclear Facilities Safety Board (Board), as determined by the Inspector General of the Nuclear Regulatory Commission, as the Inspector General exercises under the Inspector General Act of 1978 (5 U.S.C. App. 3) with respect to the Nuclear Regulatory Commission.

NRC OIG carries out its mission through its Audits and Investigations Programs. The audits and investigations highlighted in this report demonstrate our commitment to ensuring integrity and efficiency in NRC's and DNFSB's programs and operations.

It was an active 6 months for my office in furtherance of our obligation to identify the most critical risks and vulnerabilities in NRC and Board programs and operations in a timely manner to allow NRC and the Board to take any necessary corrective action. The work highlighted in this report includes audits of NRC's information technology procurement process, NRC's information quality with respect to its scientific research program, NRC's oversight of spent fuel pools, and the agency's Task Interface Agreement process. In addition, the work highlighted in this report includes an audit of the Board's compliance with the requirements of the *Government in the Sunshine Act*.

During this semiannual reporting period, we issued 12 NRC and 4 Board audit reports. As a result of this work, OIG identified vulnerabilities in, and made a number of recommendations to improve the effective and efficient operation of, NRC's safety, security, and corporate management programs and those of the Board. OIG also opened 26 investigations, and completed 14 cases. One of the open cases was referred to the Department of Justice, and 25 allegations were referred to management for action.

NRC OIG remains committed to the integrity, efficiency, and effectiveness of NRC and Board programs and operations, and our audits, investigations, and other activities highlighted in this report demonstrate this ongoing commitment. My staff continuously strives to maintain the highest possible standards of professionalism and quality in its audits and investigations. I would like to acknowledge our auditors, investigators, and support staff for their superior work and ongoing commitment to the mission of this office.

Finally, NRC OIG's success would not be possible without the collaborative efforts between my staff and those of the NRC and the Board to address OIG findings and to timely implement recommended corrective actions. I wish to thank them for their dedication and support, and I look forward to their continued cooperation as we work together to ensure the integrity and efficiency of NRC and Board operations.

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Hubert T. Bell

Hubert T. Bell
Inspector General

Brunswick Nuclear Power Station. *Photo courtesy of Progress Energy*

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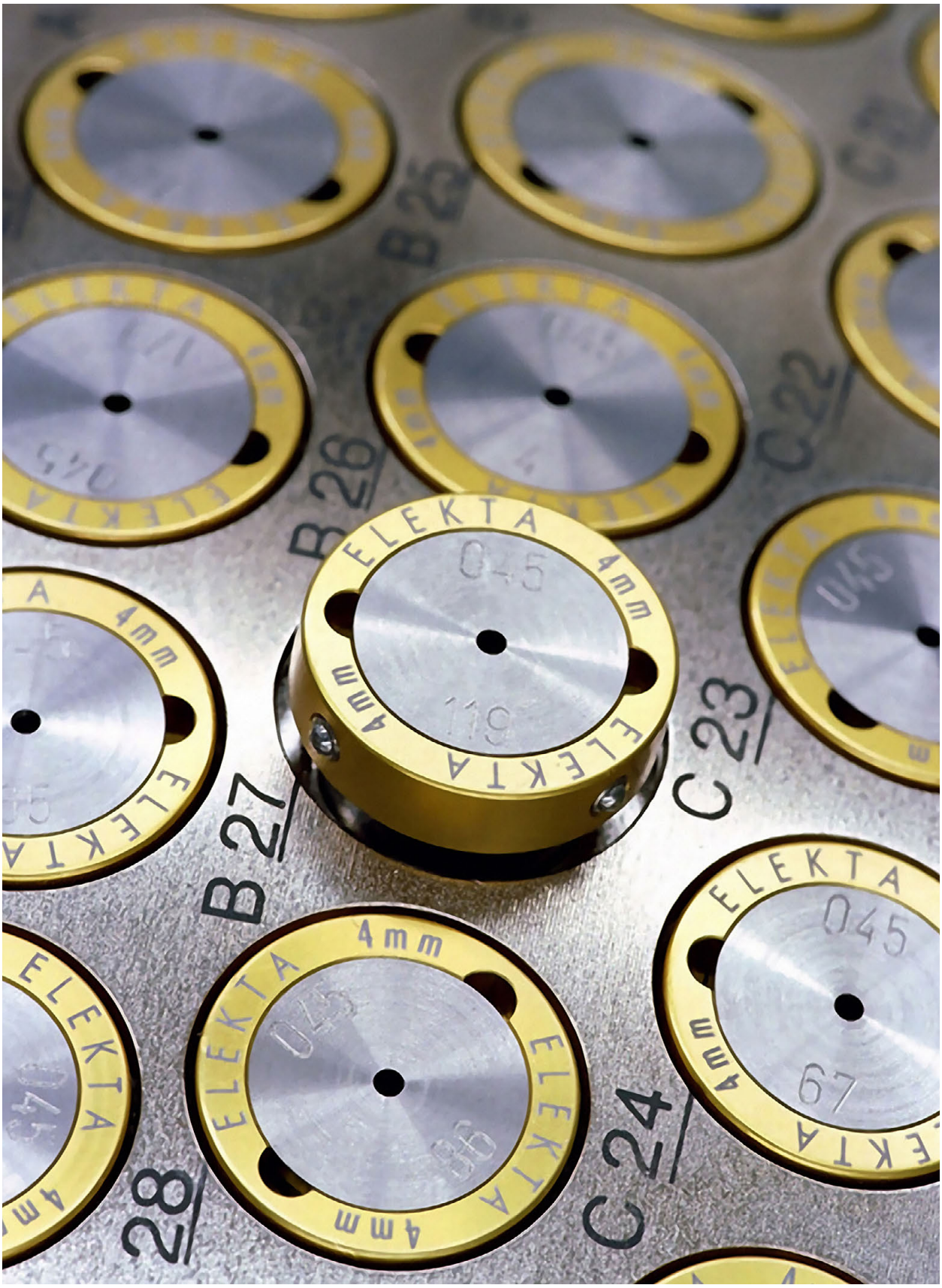


Collimator of a Gamma Knife, used for treating brain tumors. *Photo courtesy of Elekta*

HIGHLIGHTS

The following two sections highlight selected audits and investigations completed during this reporting period. More detailed summaries appear in subsequent sections of this report.

NRC Audits

- The U.S. Nuclear Regulatory Commission (NRC) is required by law to offset a substantial percent of its budget authority through fees billed to licensees and license applicants. NRC provides licensing services to agency licensees and license applicants. The agency recovers the costs to provide licensing services by invoicing licensees and applicants for staff time and contractor costs. Each fiscal year, NRC publishes a schedule of fees in 10 Code of Federal Regulations (CFR) Part 170 for licensing services directly provided to NRC licensees and applicants, and in 10 CFR Part 171 for annual fees billed to identifiable NRC license holders for generic regulatory costs not otherwise recovered through 10 CFR Part 170 fees. The audit objective was to determine whether NRC has established and implemented an effective system of internal controls over the recordation and reconciliation of fee revenue.

- On July 22, 2010, the *Improper Payments Elimination and Recovery Act of 2010* (IPERA) was signed into law, which amended *Improper Payments Information Act of 2002* (IPIA). IPERA requires Federal agencies to periodically review all programs and activities that the agency administers and identify all programs and activities that may be susceptible to significant improper payments. The *Improper Payments Elimination and Recovery Improvement Act of 2012* (IPERIA) was signed into law on January 10, 2013. This law established the Do Not Pay Initiative, which directs agencies to verify the accuracy of payments using databases before making payments. The audit objective was to assess NRC's compliance with IPIA, as amended by IPERA and IPERIA, and report any material weaknesses in internal control.

- Cost-effective information technology (IT) procurement is critical as NRC aims to provide staff with technology that helps them perform their mission and manage information security risk, while also maintaining fiscal discipline in the face of declining resources. There are several processes for procuring IT at NRC, depending upon variables such as transaction cost, availability through existing contracts, and similarity to products already in use at NRC. The audit objective was to assess the effectiveness of NRC's IT procurement process in meeting the agency's current and future IT needs.

- NRC's regulatory research program addresses issues in nuclear reactors, nuclear materials, and radioactive waste. The Office of Nuclear Regulatory Research is a technical support office that supplies technical tools, analytical models, analyses, experimental data, and technical guidance to support NRC's regulatory programs and decisions. To ensure information integrity, Federal agencies are required to adopt Office of Management and Budget standards for information quality. The audit objective was to determine whether NRC has controls in place to assure that scientific research is objective, credible, and transparent.

- The *Federal Managers' Financial Integrity Act* (FMFIA) requires ongoing evaluations and reports of the adequacy of the systems of internal accounting and administrative control of each executive agency. Further, the FMFIA requires that, each year, the head of each executive agency report to the President and the Congress on their agency's compliance with the FMFIA requirements. The Office of Management and Budget requires agencies to include the annual FMFIA report as part of the Performance and Accountability Report under the heading "Management Assurances." Additionally, this circular requires management to provide a separate assurance statement relating to the effectiveness of internal control over financial reporting. The audit objective was to assess NRC's FY 2014 compliance with the FMFIA.

- NRC is responsible for developing the regulatory framework, analytical tools, and data needed to ensure safe and secure storage, transportation, and disposal of spent nuclear fuel. For both operating and permanently shut down nuclear power plants in the United States, there are a total of 93 spent fuel pools. Recent NRC staff studies demonstrating the safety of spent fuel pools and the safety of continued storage of spent fuel at reactor sites highlight the need to ensure the safety of pool operations for longer periods than originally envisioned. The audit objective was to determine whether NRC's oversight of spent fuel pools and the nuclear fuel they contain provides adequate protection for public health and safety, and the environment.

- The Office of Nuclear Reactor Regulation (NRR) is responsible for a broad range of regulatory activities in the licensing and oversight of commercial nuclear power reactors to protect public health and safety and the environment. NRR works with the regions and other offices to accomplish its mission, including providing technical assistance to the regions and other offices. A Task Interface Agreement (TIA) is one such form of technical assistance that NRR provides the regions and other offices. A TIA is a request for NRR technical assistance from other NRC organizations and contains questions on subjects involving regulatory or policy interpretations, specific plant events, or inspection findings. The audit objective was to determine if the agency's TIA process facilitates effective and efficient responses.

- *The Chief Financial Officers Act of 1990*, as amended, requires the Inspector General (IG) or an independent external auditor, as determined by the IG, to annually audit NRC's financial statements to determine whether they are free of material misstatement. The audit, conducted by CliftonLarsonAllen, LLP, under a contract with the Office of the Inspector General (OIG), includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. It also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall financial statement presentation. In addition, the audit evaluated the effectiveness of internal controls over financial reporting and the agency's compliance with laws and regulations.

- *The Federal Information Security Management Act* (FISMA) of 2002 outlines the information security management requirements for agencies, which include an annual independent evaluation of an agency's information security program and practices to determine their effectiveness. This evaluation must include testing the effectiveness of information security policies, procedures, and practices for a representative subset of the agency's information systems. The evaluation also must include an assessment of compliance with FISMA requirements and related information security policies, procedures, standards, and guidelines. The objective was to perform an independent evaluation of NRC's implementation of FISMA for FY 2014.

- On January 24, 2000, Congress enacted the *Reports Consolidation Act of 2000*, requiring Federal agencies to provide financial and performance management information in a more meaningful and useful format for Congress, the President, and the public. The act requires the Inspector General of each Federal agency to annually summarize what he or she considers to be the most serious management and performance challenges facing the agency and to assess the agency's progress in addressing those challenges.

Defense Nuclear Facilities Safety Board Audits

- The purpose of the *Government in the Sunshine Act* (Sunshine Act) is to open Federal Government deliberation processes to public scrutiny. The act applies to agencies, such as the Board, which are headed by presidentially appointed collegial bodies and requires that when these agency heads deliberate on behalf of their agencies, these meetings be publicly announced and open to the public. The audit objective was to determine if the Board complies with the requirements of the Sunshine Act.

- The *Accountability for Tax Dollars Act of 2002*, requires the Inspector General (IG) or an independent external auditor, as determined by the IG, to annually audit the Board's financial statements in accordance with applicable standards. The audit, conducted by Acuity Consulting, Inc., under a contract with OIG, includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. It also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall financial statement presentation.

- On January 24, 2000, Congress enacted the *Reports Consolidation Act of 2000*, requiring Federal agencies to provide financial and performance management information in a more meaningful and useful format for Congress, the President, and the public. The act requires the IG of each Federal agency to annually summarize what he or she considers to be the most serious management and performance challenges facing the agency and to assess the agency's progress in addressing those challenges.

Investigations

- OIG completed an investigation into an allegation that NRC allowed the Palisades Nuclear Plant, operated by Entergy Nuclear Operations, Inc., an NRC licensee, to operate with pressure boundary leakage levels that exceeded the plant's technical specifications. The Palisades Nuclear Plant's technical specifications require the plant to shut down when an unidentified leak reaches a certain established rate level.

- OIG completed an event inquiry pertaining to NRC's oversight of the replacement steam generators installed at the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 in 2010 and 2011, respectively. Southern California Edison is the NRC license holder for SONGS, which replaced its steam generators subsequent to its application of the regulatory process described in 10 CFR 50.59, "Changes, Tests and Experiments." 10 CFR 50.59 establishes the conditions under which licensees may make changes to their facility or procedures and conduct tests or experiments without prior NRC approval. In January 2012, approximately 1 year after SONGS replaced its Unit 3 steam generators, control room operators identified a leak in one of Unit 3's two steam generators, and the plant was shut down in accordance with plant procedures. At the time the Unit 3 leak was identified, Unit 2 was shut down for a routine refueling outage. Subsequent inspections discovered unexpected wear of generator tubes in both Units 2 and 3. In June 2013, Southern California Edison announced its decision to permanently cease operations of SONGS Units 2 and 3.

- OIG initiated an investigation to provide technical assistance to the Department of Justice (DOJ) in a lawsuit pertaining to a False Claims Act filed by DOJ against General Electric-Hitachi (GEH). The NRC OIG and Department of Energy OIG assisted the DOJ Civil Division, U.S. Attorney's Office for the Eastern District of North Carolina, in its suit against GEH. Between 2007 and 2012, GEH received funding from the Department of Energy to cover up to half the cost of developing, engineering, and obtaining design certification for the Economically Simplified Boiling Water Reactor (under an ESBWR Cooperative agreement).

- OIG completed an investigation into an allegation that a retired NRC manager may have violated pre-employment and post-employment relevant statutes. Prior to the manager departing from NRC, the manager announced that he was retiring from NRC to work for an NRC regulated licensee. After departing from NRC, the manager may have attempted to influence NRC resident inspectors during a public meeting on a particular issue. 18 U.S.C. Section 208, Acts Affecting a Personal Financial Interest and 18 U.S.C Section 207, Restrictions on Former Officers, Employees, and Elected Officials of the Executive and Legislative Branches, are the relevant pre-employment and post-employment statutes, respectively.

OVERVIEW OF NRC AND OIG

NRC's Mission

NRC was formed in 1975, in accordance with the Energy Reorganization Act of 1974, to regulate the various commercial and institutional uses of nuclear materials. The agency succeeded the Atomic Energy Commission, which previously had responsibility for both developing and regulating nuclear activities.

NRC's mission is to regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment. NRC's regulatory mission covers three main areas:

- **Reactors**—Commercial reactors that generate electric power and research and test reactors used for research, testing, and training.
- **Materials**—Uses of nuclear materials in medical, industrial, and academic settings and facilities that produce nuclear fuel.
- **Waste**—Transportation, storage, and disposal of nuclear materials and waste, and decommissioning of nuclear facilities from service.

Under its responsibility to protect public health and safety, NRC has three principal regulatory functions: (1) establish standards and regulations, (2) issue licenses for nuclear facilities and users of nuclear materials, and (3) inspect facilities and users of nuclear materials to ensure compliance with the requirements. These regulatory functions relate both to nuclear power plants and other uses of nuclear materials—like nuclear medicine programs at hospitals, academic activities at educational institutions, research, and such industrial applications as gauges and testing equipment.

NRC maintains a current Web site and a public document room at its headquarters in Rockville, MD; holds public hearings and public meetings in local areas and at NRC offices; and engages in discussions with individuals and organizations.

OIG History, Mission, and Goals

OIG History

In the 1970s, Government scandals, oil shortages, and stories of corruption covered by newspapers, television, and radio stations took a toll on the American public's faith in its Government. The U.S. Congress knew it had to take action to restore the public's trust. It had to increase oversight of Federal programs and operations. It had to create a mechanism to evaluate the effectiveness of Government programs. And, it had to provide an independent voice for economy, efficiency, and effectiveness within the Federal Government that would earn and maintain the trust of the American people.

In response, Congress passed the landmark legislation known as the Inspector General Act (IG Act), which President Jimmy Carter signed into law in 1978. The IG Act created independent Inspectors General, who would protect the integrity of Government; improve program efficiency and effectiveness; prevent and detect fraud, waste, and abuse in Federal agencies; and keep agency heads, Congress, and the American people fully and currently informed of the findings of IG work.

Today, the IG concept is a proven success. The IGs continue to deliver significant benefits to our Nation. Thanks to IG audits and investigations, billions of dollars have been returned to the Federal Government or have been better spent based on recommendations identified through those audits and investigations. IG investigations have also contributed to the prosecution of thousands of wrongdoers. In addition, the IG concepts of good governance, accountability, and monetary recovery encourage foreign governments to seek advice from IGs, with the goal of replicating the basic IG principles in their own governments.

OIG Mission and Goals

NRC's OIG was established as a statutory entity on April 15, 1989, in accordance with the 1988 amendment to the IG Act. NRC OIG's mission is to independently and objectively audit and investigate programs and operations to promote effectiveness and efficiency, and to prevent and detect fraud, waste, and abuse.

OIG is committed to ensuring the integrity of NRC programs and operations. Developing an effective planning strategy is a critical aspect of accomplishing this commitment. Such planning ensures that audit and investigative resources are used effectively. To that end, OIG developed a Strategic Plan that includes the major challenges and critical risk areas facing NRC.

The plan identifies OIG's priorities and establishes a shared set of expectations regarding the goals OIG expects to achieve and the strategies that will be employed to do so. OIG's Strategic Plan features three goals, which generally align with NRC's mission and goals:

1. **Strengthen NRC's efforts to protect public health and safety and the environment.**

2. **Enhance NRC's efforts to increase security in response to an evolving threat environment.**

3. **Increase the economy, efficiency, and effectiveness with which NRC manages and exercises stewardship over its resources.**

Resident Inspector performs a walk through inspection at Calvert Cliffs nuclear power station.

NRC OIG PROGRAMS AND ACTIVITIES

Audit Program

The OIG Audit Program focuses on management and financial operations; economy or efficiency with which an organization, program, or function is managed; and whether the programs achieve intended results. OIG auditors assess the degree to which an organization complies with laws, regulations, and internal policies in carrying out programs, and they test program effectiveness as well as the accuracy and reliability of financial statements. The overall objective of an audit is to identify ways to enhance agency operations and promote greater economy and efficiency. Audits comprise four phases:

- **Survey phase**—An initial phase of the audit process is used to gather information, without detailed verification, on the agency's organization, programs, activities, and functions. An assessment of vulnerable areas determines whether further review is needed.

- **Verification phase**—Detailed information is obtained to verify findings and support conclusions and recommendations.

- **Reporting phase**—The auditors present the information, findings, conclusions, and recommendations that are supported by the evidence gathered during the survey and verification phases. Exit conferences are held with management officials to obtain their views on issues in the draft audit report. Comments from the exit conferences are presented in the published audit report, as appropriate. Formal written comments are included in their entirety as an appendix in the published audit report.

- **Resolution phase**—Positive change results from the resolution process in which management takes action to improve operations based on the recommendations in the published audit report. Management actions are monitored until final action is taken on all recommendations. When management and OIG cannot agree on the actions needed to correct a problem identified in an audit report, the issue can be taken to the NRC Chairman for resolution.

Each October, OIG issues an *Annual Plan* that summarizes the audits planned for the coming fiscal year. Unanticipated high-priority issues may arise that generate audits not listed in the *Annual Plan*. OIG audit staff continually monitor specific issues areas to strengthen OIG's internal coordination and overall planning process. Under the OIG Issue Area Monitor (IAM) program, staff designated as IAMs are assigned responsibility for keeping abreast of major agency programs and activities. The broad IAM areas address nuclear reactors, nuclear materials, nuclear waste, international programs, security, information management, and financial management and administrative programs.

Investigative Program

OIG's responsibility for detecting and preventing fraud, waste, and abuse within NRC includes investigating possible violations of criminal statutes relating to NRC programs and activities, investigating misconduct by NRC employees, interfacing with the Department of Justice on OIG-related criminal matters, and coordinating investigations and other OIG initiatives with Federal, State, and local investigative agencies and other OIGs. Investigations may be initiated as a result of allegations or referrals from private citizens; licensee employees; NRC employees; Congress; other Federal, State, and local law enforcement agencies; OIG audits; the OIG Hotline; and OIG initiatives directed at areas bearing a high potential for fraud, waste, and abuse.

Because NRC's mission is to protect the health and safety of the public, OIG's Investigative Program directs much of its resources and attention to investigating allegations of NRC staff conduct that could adversely impact matters related to health and safety. These investigations may address the following allegations:

- Misconduct by high-ranking NRC officials and other NRC officials, such as managers and inspectors, whose positions directly impact public health and safety.
- Failure by NRC management to ensure that health and safety matters are appropriately addressed.
- Failure by NRC to appropriately transact nuclear regulation publicly and candidly and to openly seek and consider the public's input during the regulatory process.
- Conflicts of interest involving NRC employees and NRC contractors and licensees, including such matters as promises of future employment for favorable or inappropriate treatment and the acceptance of gratuities.
- Fraud in the NRC procurement program involving contractors violating Government contracting laws and rules.

OIG has also implemented a series of proactive initiatives designed to identify specific high-risk areas that are most vulnerable to fraud, waste, and abuse. A primary focus is electronic-related fraud in the business environment. OIG is committed to improving the security of this constantly changing electronic business environment by investigating unauthorized intrusions and computer-related fraud, and by conducting computer forensic examinations. Other proactive initiatives focus on determining instances of procurement fraud, theft of property, Government credit card abuse, and fraud in Federal programs.

OIG General Counsel Regulatory Review

Regulatory Review

Pursuant to the *Inspector General Act*, 5 U.S.C. App. 3, Section 4(a)(2), OIG reviews existing and proposed legislation, regulations, policy, and implementing Management Directives, and makes recommendations to the agency concerning their impact on the economy and efficiency of agency programs and operations.

Regulatory review is intended to provide assistance and guidance to the agency prior to the concurrence process so as to avoid formal implementation of potentially flawed documents. OIG does not concur or object to the agency actions reflected in the regulatory documents, but rather offers comments.

Comments provided in regulatory review reflect an objective analysis of the language of proposed agency statutes, directives, regulations, and policies resulting from OIG insights from audits, investigations, and historical data and experience with agency programs. OIG review is structured so as to identify vulnerabilities and offer additional or alternative choices.

To effectively track the agency's response to OIG regulatory review, comments include a request for written replies within 90 days, with either a substantive reply or status of issues raised by OIG.

From October 1, 2014, through March 31, 2015, OIG reviewed a variety of agency documents including Commission papers (SECYs), Staff Requirements Memoranda, and Federal Register Notices, and Management Directives, as well as draft policies and statutes.

Comments provided on particular matters addressed during this period are described below:

- Management Directive (MD) and Handbook (DH) 12.5, *NRC Cybersecurity Program*, implements cyber security measures to protect and ensure reliable access to NRC information and IT systems for authorized individuals, including computer-based hardware, software, or associated administrative and operational procedures that are used to process, store, or transmit NRC information, whether it is classified information, Safeguards Information, or Sensitive Unclassified Non-Safeguards Information.

  The current draft is intended to document transitioning information on the Telecommunications System Security Program from MD 12.4 to MD 12.5. In addition, this revision adds a frame of reference to ensure consistent direction regarding security incidents. OIG commentary noted, as a preliminary matter, that many of the hyperlinks provided in the draft required additional review and verification to resolve connection and content issues. In addition, comments were provided on notification requirements levied by the *Inspector General Act* and agency regulations.

- MD and DH 10.78, *NRC Nuclear Safety Professional Development Program*, provides detailed recruitment guidance to attract undergraduate, graduate, and other highly qualified entry level employees, and to systematically train and develop them to full performance level. OIG comments suggested additional specialty areas and clarification of Executive Director for Operations and Office of the Chief Human Capital Officer roles and delegations.

- With regard to MD and DH 10.159, *NRC Differing Professional Opinion Program*, OIG comments identified areas of responsibility needing additional clarification. OIG also suggested that the Differing Professional Opinion Program contact OIG before advising employees with concerns related to their differing opinions.

- With regard to *NRC Information Technology/Information Management Strategic Plan for Fiscal Years 2015-2016*, OIG comments focused on identifying areas needing additional definition and clarification. This included distinguishing differences in key terms, such as "cyber risk" and "cybersecurity," and performance indicator models.

NRC MANAGEMENT AND PERFORMANCE CHALLENGES

Most Serious Management and Performance Challenges Facing the Nuclear Regulatory Commission* as of October 1, 2014 *(as identified by the Inspector General)*
Challenge 1 *Internal Controls.*
Challenge 2 *Guidance and Procedures.*
Challenge 3 *Training.*
Challenge 4 *Acquisition, Contracting, and Procurement.*
Challenge 5 *Project Management.*
Challenge 6 *Internal Communication and Coordination.*
Challenge 7 *Human Capital Management.*
Challenge 8 *Accountability.*
Challenge 9 *Cyber Security.*

**For more information on the challenges, see OIG-15-A-01, Inspector General's Assessment of the Most Serious Management and Performance Challenges Facing NRC, http://pbadupws.nrc.gov/docs/ML1428/ML14289A326.pdf*

NRC AUDITS

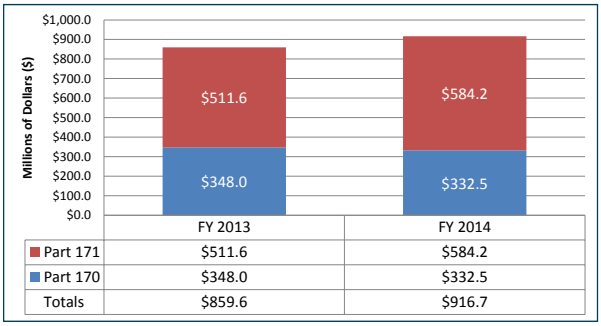
To help the agency improve its effectiveness and efficiency during this period, OIG completed 12 financial and performance audits or evaluations, 10 of which are summarized here that resulted in numerous recommendations to NRC management. In addition, the Defense Contract Audit Agency completed one contract audit for OIG.

Audit Summaries

Audit of NRC's Internal Controls Over Fee Revenue

OIG Strategic Goal: Corporate Management

Estimated Fee Recovery for FYs 2013 and 2014



	FY 2013	FY 2014
Part 171	$511.6	$584.2
Part 170	$348.0	$332.5
Totals	$859.6	$916.7

Source: NRC

NRC is required by law to offset a substantial percent of its budget authority through fees billed to licensees and license applicants.

NRC provides licensing services to agency licensees and license applicants. The agency recovers the costs to provide licensing services by invoicing licensees and applicants for staff time and contractor costs. Each fiscal year, NRC publishes a schedule of fees in 10 CFR Part 170 for licensing services directly provided to NRC licensees and applicants, and in 10 CFR Part 171 for annual fees billed to identifiable NRC license holders for generic regulatory costs not otherwise recovered through 10 CFR Part 170 fees.

Licensing and inspection fees include the full cost of professional staff time for specific inspections and plant and licensee-specific performance reviews, project manager and resident inspector overhead cost, and reimbursable contractor costs with certain exclusions specified in Part 170. Project managers are NRC employees responsible for overseeing projects for licensees and applicants. Resident inspectors are NRC employees assigned to a specific facility and provide major onsite NRC presence for inspection and assessment of licensee performance.

The audit objective was to determine whether NRC has established and implemented an effective system of internal controls over the recordation and reconciliation of fee revenue.

Audit Results:

While NRC generally meets its fee recovery percentages, more effective internal controls would increase efficiency, effectiveness, and transparency of the agency's fee revenue process and reduce the risk for the agency to overbill or underbill NRC licensees and applicants.

Controls for setting up timekeeping codes and their definitions are inconsistent and not standardized, making it difficult for staff to identify the correct code for charging time. In addition, controls to prevent errors in selecting timekeeping codes for charging staff time can be improved. These procedures are ineffective and inefficient because agency management has not centralized control over billing codes, and quarterly validation reports are ineffective.

Similarly, the overhead cost allocation process also needs improvement. The allocation calculation is based on dockets assigned to project managers and resident inspectors and not on activity or work effort. Moreover, a recent agency study reported that the current process is subject to a high error rate.

Finally, NRC validation reports for project managers and resident inspectors as well as agency invoices lack adequate contractor details regarding services provided to licensees and applicants and related reimbursable costs. Lack of contractor detail in NRC validation reports and invoices sent to licensees and applicants increases the risk of billing errors.

(Addresses Management and Performance Challenges #1 and #2)

Audit of NRC's Fiscal Year 2014 Compliance with Improper Payment Laws

OIG Strategic Goal: Corporate Management

On July 22, 2010, the *Improper Payments Elimination and Recovery Act of 2010* (IPERA) was signed into law, which amended *Improper Payments Information Act of 2002* (IPIA). IPERA requires Federal agencies to periodically review all programs and activities that the agency administers and identify all programs and activities that may be susceptible to significant improper payments.

Source: Shutterstock

In addition, IPERA requires each agency to conduct recovery audits with respect to each program and activity of the agency that expends $1,000,000 or more annually, if conducting such audits would be cost-effective. *The Improper Payments Elimination and Recovery Improvement Act of 2012* (IPERIA) was signed into law on January 10, 2013. This law established the Do Not Pay Initiative, which directs agencies to verify the accuracy of payments using databases before making payments.

Office of Management and Budget (OMB) guidance specifies that each agency's Inspector General should review agency improper payment reporting in the agency's annual Performance and Accountability Report (PAR) and accompanying materials to determine whether the agency complied with IPERA.

The audit objective was to assess NRC's compliance with IPIA, as amended by IPERA and IPERIA, and report any material weaknesses in internal control.

Audit Results:

Based on our review of NRC's FY 2014 PAR and other documentation provided by the agency, OIG determined that the agency is in compliance with the requirements of IPIA, as amended by IPERA and IPERIA. OIG also concluded that agency reporting of improper payments is accurate and complete.

(Addresses Management and Performance Challenge #1)

Audit of NRC's IT Technology Procurement Process

OIG Strategic Goal: Corporate Management

Source: Shutterstock

Cost-effective information technology (IT) procurement is critical as NRC aims to provide staff with technology that helps them perform their mission and manage information security risk while also maintaining fiscal discipline in the face of declining resources. The need to "innovate with less"[1] is reinforced by trends in NRC's annual IT spending, which decreased from approximately $165 million in FY 2011 to approximately $152 million in FY 2015. This spending supports mission and management data systems, such as NRC's incident response, official agency recordkeeping, and core financial accounting systems.

There are several processes for procuring IT at NRC, depending upon variables such as transaction cost, availability through existing contracts, and similarity to products already in use at NRC.

The audit objective was to assess the effectiveness of NRC's IT procurement process in meeting the agency's current and future IT needs.

Audit Results:

NRC has governance groups that review IT investments in the planning, development, and operational stages. The agency is also taking steps to streamline and improve the cost-effectiveness of its IT procurements. However, NRC could more effectively meet agencywide IT needs by developing and applying investment criteria, and by communicating these criteria to all staff involved in the IT procurement process.

NRC IT governance groups should apply IT investment criteria that are well defined and understood by all staff involved in the IT procurement process. NRC IT governance groups do not consistently apply these investment criteria in reviewing and approving staff requests for new technology. Specifically, OIG found cases dating from 2010 to the present in which NRC purchased items to meet particular customer needs without establishing standardized selection criteria or applying such criteria to business case justifications for the procurements. Additionally, staff interviews and internal agency analysis corroborate a need for better coordination of IT procurement planning, budgeting, and prioritization.

IT governance groups do not consistently apply investment criteria in reviewing requests for new IT because they lack standardized technical and financial selection criteria. As a result, IT items are sometimes deployed without full functionality and NRC does not always realize full return on its procurement investment.

(Addresses Management and Performance Challenges #2 and #6)

[1] *The Office of Management and Budget (OMB) has directed Federal agencies to "innovate with less" by ending low priority and duplicative IT investments. See OMB Memorandum M-12-10, Implementing PortfolioStat, March 30, 2012.*

Audit of NRC's Process for Ensuring Integrity in Scientific Research

OIG Strategic Goal: Safety

NRC's regulatory research program addresses issues in nuclear reactors, nuclear materials, and radioactive waste. The Office of Nuclear Regulatory Research is a technical support office that supplies technical tools, analytical models, analyses, experimental data, and technical guidance to support NRC's regulatory programs and decisions.

To ensure information integrity Federal agencies are required to adopt OMB standards for information quality. The standards require agencies to designate "influential" information, implement a means for people to seek and obtain correction of disseminated information, follow peer review requirements for designated influential scientific information, and report publicly on the receipt and resolution of information correction requests, designated influential information, and peer reviews.

The audit objective was to determine whether NRC has controls in place to assure that scientific research is objective, credible, and transparent.

Audit Results:

While NRC has controls in place, there is room for improvement. NRC needs to strengthen its Information Quality Program and adopt OMB guidelines on peer review to improve data quality and transparency, and maximize public confidence in the quality and credibility of its research products.

Although NRC has established an Information Quality Program that meets OMB requirements, it is largely ineffective because of a lack of program oversight. The program does not ensure effective or efficient processing of information requests in accordance with OMB requirements, and it does not consistently review information products against Influential Scientific Information and Highly Influential Scientific Assessment criteria.

In addition, NRC has not adopted OMB requirements on peer review as its official guidelines because NRC lacks an effective mechanism to ensure that internal office guidance that could be affected by new or revised Federal guidance is regularly reviewed to determine if revisions are necessary.

(Addresses Management and Performance Challenges #2, #6, and #8)

Audit of NRC's Implementation of the Federal Managers' Financial Integrity Act for FY 2014

OIG Strategic Goal: Corporate Management

The Federal Managers' Financial Integrity Act (FMFIA) requires ongoing evaluations and reports of the adequacy of the systems of internal accounting and administrative control of each executive agency. Further, the FMFIA requires that, each year, the head of each executive agency report to the President and the Congress on their agency's compliance with FMFIA requirements.

OMB requires agencies to include the annual FMFIA report as part of the Performance and Accountability Report (PAR) under the heading "Management Assurances." Additionally, this circular requires management to provide a separate assurance statement relating to the effectiveness of internal control over financial reporting.

The audit objective was to assess NRC's FY 2014 compliance with the FMFIA.

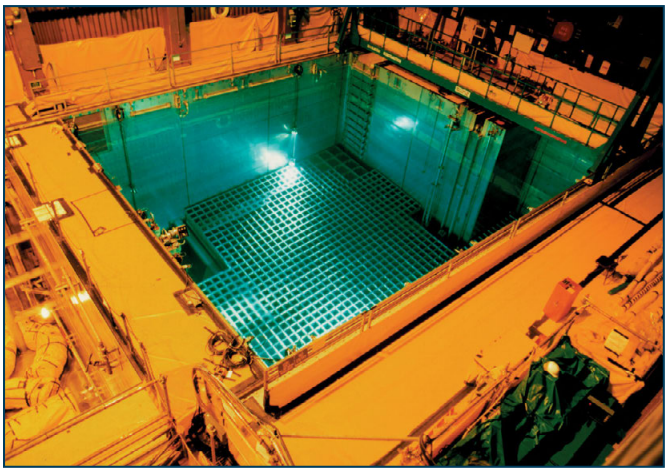
Audit Results:

In the agency's FY 2014 PAR, the NRC Chairman provided reasonable assurance that internal control over operations, compliance with laws and regulations, and internal control over financial reporting were operating effectively and no material weaknesses were found. The Inspector General concurs with the assurances made and found that NRC complied with the FMFIA requirements.

(Addresses Management and Performance Challenge #4)

Audit of NRC's Oversight of Spent Fuel Pools

OIG Strategic Goal: Safety



Spent fuel pool.
Source: NRC

Spent fuel pools are deep pools of water that hold thermally hot and intensely radioactive spent (used) nuclear fuel after its removal from a nuclear reactor. The water in the spent fuel pools acts as a shield to reduce the radiation levels that people working outside the pool may be exposed to, and it also cools the spent fuel that continues to produce heat for several years after removal from the reactor.

NRC is responsible for developing the regulatory framework, analytical tools, and data needed to ensure safe and secure storage, transportation, and disposal of spent nuclear

fuel. For both operating and permanently shut down nuclear power plants in the United States, there are a total of 93 spent fuel pools that currently store spent fuel.

Recent NRC staff studies demonstrating the safety of spent fuel pools and the safety of continued storage of spent fuel at reactor sites highlight the need to ensure the safety of pool operations for longer periods than originally envisioned.

The audit objective was to determine whether NRC's oversight of spent fuel pools and the nuclear fuel they contain provides adequate protection for public health and safety, and the environment.

Audit Results:

NRC provides adequate oversight of spent fuel pools and the nuclear fuel they contain to protect public health and safety and the environment; however, opportunities exist for improvement.

Regulatory uncertainty exists in NRC's evaluation of spent fuel pool criticality safety analyses. NRC should regulate in a manner that clearly communicates requirements and ensures that regulations are consistently applied and are practical. However, there is an absence of effective spent fuel pool criticality analyses guidance for both licensees and NRC staff. This could lead to a reduction in program efficiency and effectiveness.

There are gaps in NRC's spent fuel pool inspection program as inspections of spent fuel pools greatly vary between licensee sites and are limited in scope. To fulfill its responsibility to protect public health and safety, NRC must inspect and assess licensee operations and facilities to ensure compliance with its regulatory requirements. However, variations in spent fuel pool inspections result from guidance that is either outdated or virtually silent on spent fuel pools. Without improved guidance, spent fuel pools could potentially be overlooked.

Recent NRC staff studies demonstrating the safety of spent fuel pools and the safety of continued storage of spent fuel at reactor sites highlight the need to ensure the safety of pool operations for longer periods than originally envisioned. To accomplish this, NRC's spent fuel pool oversight would be more effective for the long term with additional guidance for NRC staff and licensees in the following areas:

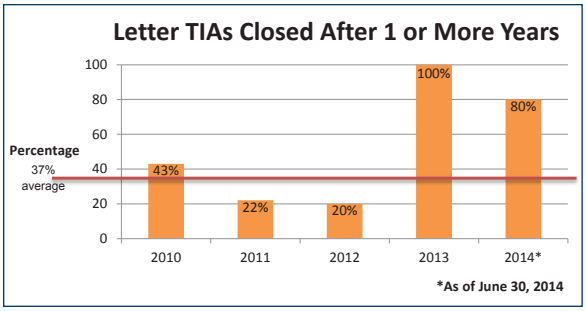
- Improved criticality analyses guidance and reviews to enhance the clarity and predictability of NRC's licensing process related to spent fuel pools.

- Enhanced reactor oversight process inspection guidance to call attention to spent fuel pools and their related systems.

(Addresses Management and Performance Challenges #2 and #6)

Audit of NRC's Task Interface Agreement Process

OIG Strategic Goal: Safety



The Office of Nuclear Reactor Regulation (NRR) is responsible for a broad range of regulatory activities in the licensing and oversight of commercial nuclear power reactors to protect public health and safety and the environment. NRR works with the regions and other offices to accomplish its mission, including providing technical assistance to the regions and other offices.

A Task Interface Agreement (TIA) is one such form of technical assistance that NRR provides the regions and other offices. A TIA is a request for NRR technical assistance from other NRC organizations and contains questions on subjects involving regulatory or policy interpretations, specific plant events, or inspection findings. In some instances, the questions can be time-sensitive and related to safety-significant systems. A TIA could also be used to obtain technical assistance on an allegation-related issue.

The requesting organization may use a TIA to obtain information on specific plant licensing bases, applicable staff positions, regulatory requirements, NRR technical positions, or the safety or risk significance of particular plant configurations or operating practices. Ensuring that adequate, appropriate, and timely feedback is provided to the requesting organization is central to the agency's mission to protect public health and safety and the environment.

The audit objective was to determine if the agency's TIA process facilitates effective and efficient responses.

Audit Results:

Staff requesting technical assistance from NRR are generally satisfied with the technical content provided through the TIA process. However, there are concerns regarding the efficiency of the process and, conceivably, long overdue TIAs could be regarded as eroding overall effectiveness of the TIA process.

NRC's TIA process should ensure that questions raised by other NRC organizations are resolved and communicated in a timely manner. However, roughly one-third of TIA requests are not resolved and communicated in a timely manner because NRC lacks controls to ensure TIA timeliness performance measures are met. While NRR has several tools that could potentially serve as internal controls – such as the agency's time and attendance system, a biweekly status report, and the TIA library – each has inherent limitations.

Staff failures to consistently meet metrics established by guidance and approved by agency management results in a variety of TIA-process specific and agencywide impacts. TIA responses that take months or years could affect the safe operation of nuclear power plants. Failure to meet performance metrics could potentially affect the agency's safety oversight mission as well as overall TIA process effectiveness and agency accountability.

(Addresses Management and Performance Challenge #1)

Results of the Audit of NRC's Financial Statements for Fiscal Years 2014 and 2013

OIG Strategic Goal: Corporate Management

The Chief Financial Officers Act of 1990, as amended, requires the Inspector General or an independent external auditor, as determined by the Inspector General, to annually audit NRC's financial statements to determine whether the agency's financial statements are free of material misstatement. The audit, conducted by CliftonLarsonAllen, LLP, under a contract with OIG, includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. It also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall financial statement presentation.

Source: Shutterstock

In addition, the audit evaluated the effectiveness of internal controls over financial reporting and the agency's compliance with laws and regulations.

Audit Results:

Financial Statements: The auditors expressed an unmodified opinion on the agency's FY 2013 and FY 2014 financial statements.

Internal Controls: The auditors expressed an unqualified opinion on the agency's internal controls.

Compliance with Laws and Regulation: The auditors found no reportable instances of noncompliance.

(Addresses Management and Performance Challenge #1)

Independent Evaluation of NRC's Implementation of the Federal Information Security Management Act for Fiscal Year 2014

OIG Strategic Goal: Security

Source: Shutterstock

The *Federal Information Security Management Act* (FISMA) of 2002 outlines the information security management requirements for agencies, which include an annual independent evaluation of an agency's information security program and practices to determine their effectiveness. This evaluation must include testing the effectiveness of information security policies, procedures, and practices for a representative subset of the agency's information systems. The evaluation also must include an assessment of compliance with FISMA requirements and related information security policies, procedures, standards, and guidelines. FISMA requires the annual evaluation to be performed by the agency's OIG or by an independent external auditor.

The objective was to perform an independent evaluation of NRC's implementation of FISMA for FY 2014.

Evaluation Results:

While the agency has continued to make improvements in its IT security program and has made progress in implementing the recommendations resulting from previous FISMA evaluations, the evaluation identified the following IT security program weaknesses:

- Continuous monitoring is not performed as required. Continuous monitoring is essential for determining risk associated with systems and for ensuring risk-based decisions are made concerning continued system operation. Some of the required continuous monitoring activities were not performed by the agency. As a result, NRC cannot ensure the effectiveness of information security controls for NRC systems and cannot identify and control risk.

There are two repeat findings from previous FISMA evaluations:

1. Configuration management procedures are still not consistently implemented. As a result, information security protections may not be commensurate with the risk and magnitude of the harm resulting from unauthorized access, use, disclosure, disruption, modification, or destruction of NRC information and information systems.

2. Plan of action and milestone management (POA&M) still needs improvement. POA&Ms are intended to track and monitor known information security weaknesses. POA&Ms that do not include all known security weaknesses and are not updated in a timely manner are not effective at monitoring the progress of corrective efforts relative to known weaknesses in IT security controls. As a result, the POA&M does not provide an accurate measure of security program effectiveness.

(Addresses Management and Performance Challenges #1 and #9)

Inspector General's Assessment of the Most Serious Management and Performance Challenges

OIG Strategic Goal: Corporate Management

On January 24, 2000, Congress enacted the *Reports Consolidation Act of 2000*, requiring Federal agencies to provide financial and performance management information in a more meaningful and useful format for Congress, the President, and the public. The act requires the Inspector General (IG) of each Federal agency to annually summarize what he or she considers to be the most serious management and performance challenges facing the agency and to assess the agency's progress in addressing those challenges. Congress left the determination and threshold of what constitutes a most serious management and performance challenge to the discretion of the IGs.

To accomplish this assessment, the NRC IG considered OIG's overall work, the OIG staff's general knowledge of agency operations, and other relevant information to develop and update the list of management and performance challenges and assess the agency's progress in addressing these challenges.

The IG identified the following as the most serious management and performance challenges facing NRC as of October 1, 2014:

1. Internal Controls.
2. Guidance and Procedures.
3. Training.
4. Acquisition, Contracting, and Procurement.
5. Project Management.
6. Internal Communication and Coordination.
7. Human Capital Management.
8. Accountability.
9. Cyber Security.

(Addresses All Management and Performance Challenges)

Audits in Progress

Audit of NRC's Regulatory Analysis Process

OIG Strategic Goal: Corporate Management

NRC uses a structured process to support Commission decisions for approval of new regulations, orders, bulletins, generic letters, regulatory guides, standard review plans, and standard technical specifications. The process is called regulatory analysis, which is designed to be a comprehensive and disciplined process to justify new requirements.

The regulatory analyses support numerous NRC actions that affect nuclear power reactor and non-power reactor licensees. The document titled *Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission* (NUREG/BR-0058) provides the guidance for performing regulatory analyses. This guidance specifies that regulatory analyses should determine the impact of rulemaking and other activities. Impacts include the cost of the activity to licensees and to State and local governments.

Some cost estimates performed as part of the regulatory analysis process have proven to be significantly different from the actual costs of implementation of new NRC requirements. For example, licensees have said that NRC estimates for complying with fire protection regulations were six times lower than actual costs. Stakeholders have stated that for NRC's new fatigue management rules, actual costs exceeded the agency's estimate between two and five times. In regulations on reactor security, the NRC's estimate was 19 times lower than the cost of implementation.

The audit objective is to determine the adequacy of NRC's cost estimate analyses during the regulatory analysis process.

Audit of NRC's Oversight of Medical Uses of Nuclear Material

OIG Strategic Goal: Safety

NRC oversees medical uses of nuclear material through licensing, inspection, and enforcement programs. NRC issues medical use licenses to medical facilities and authorized users, develops guidance and regulations for use by licensees, and maintains a committee of medical experts to obtain advice about the use of byproduct materials in medicine. The types of medical uses regulated by NRC include diagnostic, therapeutic, and research. In the United States about 18 million nuclear medicine procedures are conducted per year. Medical procedures account for nearly all (~96%) human exposure to manmade radiation.

On an annual basis, NRC submits a report to Congress on abnormal occurrences that take place across the country. An abnormal occurrence is an unscheduled incident or event that NRC determines to be significant from the standpoint of

public health or safety. For a 10-year period (2001-2011), NRC reported 129 abnormal occurrences and almost 80 percent of those were due to medical events.

The audit objective is to determine if NRC's oversight of medical uses of radioactive isotopes adequately protects public health and safety.

Audit of NRC's Oversight of Management Storage and Disposal of Low-Level Radioactive Waste

OIG Strategic Goal: Safety

Low-level radioactive waste (LLRW) is typically produced at nuclear power reactors, hospitals, research facilities, and clinics from the use of nuclear materials for industrial and medical purposes. NRC regulates the management, storage, and disposal of radioactive waste produced as a result of NRC-licensed activities. LLRW includes contaminated protective clothing, reactor water treatment residues, equipment and tools, medical supplies, and laboratory animal tissues.

Low-level waste disposal occurs at commercially operated low-level waste disposal facilities that must be licensed by either NRC or an Agreement State. In 1980, Congress passed the Low-Level Radioactive Waste Policy Act, which established a compact system to encourage States to collaborate in building LLRW disposal facilities. There are four existing low-level waste disposal facilities in the United States that accept various types of low-level waste. However, these low-level waste disposal sites accept waste only from certain States or accept only limited types of low-level wastes.

LLRW that cannot be disposed of at a commercially operated facility is stored "onsite" where it was produced. Onsite storage increases the risk of accident and subjects workers to an increased likelihood of an unplanned exposure. NRC regulates approximately 1,600 materials licensees whose State compact does not have a LLRW disposal facility or is not affiliated in a compact.

The audit objective is to determine if NRC has the requisite processes in place for oversight of management, storage and disposal of low-level waste for NRC licensees.

Audit of NRC's Nuclear Reactor Safety Business Lines

OIG Strategic Goal: Corporate Management

The nuclear reactor safety business lines are a part of NRC's overall internal control framework for improving the accountability and effectiveness of NRC programs and operations. In compliance with the Federal Managers' Financial Integrity Act as well as OMB Circular A-123—Management's Responsibility for Internal Control—NRC has established business lines for major programs, including two nuclear reactor

safety business lines. The responsible business line managers for these reactor safety business lines are the Directors of the Office of Nuclear Reactor Regulation and the Office of New Reactors.

Nuclear reactor safety business line managers establish internal control processes to reasonably ensure that the agency's internal control complies with Federal and NRC requirements. This includes internal controls for both financial and non-financial, programmatic activities. As per MD 4.4, Internal Control, business line managers are required to develop and maintain an Internal Control Plan, assess risks, and test programmatic, non-financial internal controls.

The audit objective is to determine the extent to which NRC has developed effective reactor safety business line internal control processes for non-financial programmatic activities.

Audit of NRC's Construction Reactor Oversight Process

OIG Strategic Goal: Safety

The Division of Construction Inspection and Operational Programs developed the construction reactor oversight process (cROP) to oversee the construction of new nuclear power plants. The cROP includes developing and maintaining programs in the areas of construction inspection, assessment, and enforcement; inspections, tests, analyses, and acceptance criteria (ITAAC) closure verification; quality assurance; vendor and construction inspection; and operator licensing.

The cROP is intended to serve as an objective and consistent means by which to evaluate new reactor construction through inspection. Findings resulting from new reactor construction inspections are evaluated for significance and a regulatory enforcement action is determined in accordance with the cROP's Construction Action Matrix. Additionally, the agency has also developed a cROP Enforcement Working Group which has been tasked to develop a consensus approach for determining enforcement actions related to violations or other non-conformances.

NRC's ability to oversee the construction of new reactors depends significantly on the successful implementation of the cROP, which in turn affects the agency's ability to meet its mission.

The audit objective is to assess the efficiency and effectiveness of NRC's cROP.

Audit of NRC's Management of Change

OIG Strategic Goal: Corporate Management

Change management consists of the processes, tools, and techniques for managing change. Change management is frequently used in private industry and government organizations to facilitate and monitor implementation of a major change. Most change processes contain three phases that respectively address (1) preparing for change, (2) managing change, and (3) reinforcing change.

Change management is typically applied in a graded approach with more structure, oversight, and effort for more significant and potentially difficult changes. It has proven effective in implementing technical system changes, such as new software systems for recording time and attendance, as well as organizational changes, such as the establishment of new offices.

NRC's ability to effectively manage organizational, technical, and procedural change is a critical performance characteristic that can significantly affect NRC's ability to carry out its mission.

The audit objective is to assess the efficiency and effectiveness of NRC's management of change.

Audit of NRC's Web-Based Licensing System

OIG Strategic Corporate Management

NRC's Web-Based Licensing (WBL) system is an NRC and Agreement State material licensing system that manages the licensing information of businesses that use radioactive materials. WBL allows NRC and Agreement States to manage the licensing life cycle from initial application, license issuance, amendment, reporting, and license termination through an online system.

NRC deployed WBL in August 2012. There are plans to integrate legacy systems into the WBL including import/export licensing, the Sealed Source and Device Registry, the Reciprocity Tracking System, and the General License Tracking System.

Entities with key roles include NRC's Office of Nuclear Material Safety and Safeguards, which maintains all materials licensing database management systems including the Sealed Source and Device Registry, the General License Tracking System, and the License Tracking System, and played a key role in developing WBL; the Computer Security Office, which is responsible for planning, directing, and overseeing the implementation of a comprehensive, coordinated, integrated and cost-effective information technology security program; and Office of Information Services, which plans, directs, and oversees the delivery of the centralized

information technology infrastructure, applications, and information management services, and the development and implementation of IT and information management plans, architecture, and policies.

The audit objective is to determine if WBL meets its operational requirements and provides for the security, availability, and integrity of the system's data.

Audit of NRC's Emergency Preparedness Program

OIG Strategic Goal: Security

In November 2011, NRC issued a final rule updating emergency preparedness regulations in 10 CFR Parts 50 and 52. The new regulations mandate certain voluntary protective measures recommended in NRC Bulletin 2005-02, Emergency Preparedness and Response Actions for Security Based Events, and codify requirements similar to ones previously imposed by Commission orders. Security-related issues covered in the new regulations include emergency response staffing and organization, Emergency Action Levels for hostile-action events, and drills and exercises based on hostile-action scenarios. They also address issues without a direct nexus to security, including alert and notification systems, emergency operations facilities, and the process for changing licensees' emergency preparedness plans.

In developing the new regulations, NRC and the Federal Emergency Management Agency conducted outreach with a broad range of public stakeholders, including representatives from State, local, and Tribal governments; non-governmental organizations; and the nuclear power industry. The two agencies also engaged public stakeholders to understand issues that could adversely affect implementation.

The audit objectives are to (1) assess NRC's coordination with external stakeholders to support implementation of new emergency preparedness requirements codified by recent changes to 10 CFR Parts 50 and 52, and (2) assess NRC's plans for managing issues that may hinder implementation of the new requirements.

NRC INVESTIGATIONS

During this reporting period, OIG received 117 allegations, initiated 26 investigations, and closed 14 cases. In addition, OIG made 25 referrals to management and one to the Department of Justice.

Investigative Case Summaries

NRC's Handling of Pressure Boundary Leakage at the Palisades Nuclear Plant

OIG Strategic Goal: Safety

OIG completed an investigation into an allegation that NRC allowed Palisades Nuclear Plant (PNP), an Entergy Nuclear Operations, Inc. (Entergy) licensee, to operate with pressure boundary leakage that exceeded levels established in the plant's technical specifications.

Entergy discovered that an unidentified Primary Coolant System (PCS) leak at PNP had been gradually increasing since starting up from a forced outage on July 10, 2012. The licensee conducted a number of containment entries to identify the source of the PCS leak, but was unable to locate the source. The licensee determined an administrative limit and that a shutdown would commence if the leak and confirmatory leak rate measurements exceeded 0.5 gallons per minute (gpm). The technical specification limit is 1.0 gpm for unidentified PCS leakage. On August 9, 2012, the licensee notified the NRC that it intended to shut down the plant to investigate the source of elevated PCS unidentified leakage. At the point of the shutdown, unidentified leakage was approximately 0.3 gpm.

On August 12, 2012, with the reactor shut down, a containment entry was performed to conduct a visual inspection of PCS areas inaccessible during power operation. A control rod drive mechanism (CRDM) housing assembly was identified as the source of the leak. The leak was coming from an area on the CRDM, about 1 foot above the reactor head vessel flange, had no bolts connection, and was insoluble from the PCS, making it pressure boundary leakage. Therefore, it was in violation of PNP's technical specifications, which allow no pressure boundary leakage whatsoever.

Investigative Results:

OIG found that PNP operated consistent with the expected and safe application of its technical specification 3.4.13, Primary Coolant System Operational Leakage, and 10 CFR Chapter 50, Appendix A, General Design Criteria. OIG did not identify any evidence to suggest that NRC staff failed in their responsibilities to ensure public health and safety.

OIG reviewed PNP's technical specification 3.4.13, which requires the plant to shut down when the unidentified leak rate exceeds 1.0 gpm. If the leak is determined to be a pressure boundary leak prior to reaching the leak rate of 1.0 gpm, the plant must shut down regardless of the gpm rate.

OIG reviewed the basis for PNP's technical specification and noted that the 1.0 gpm unidentified leakage rate takes into account the possibility of pressure boundary leakage and is based on the assumption the plant can safely tolerate this amount of even pressure boundary leakage.

OIG learned that on September 5, 2012, NRC completed a special inspection at PNP in response to the circumstances surrounding the PCS leak on the CRDM housing. The inspection examined activities conducted under PNP's license as they related to safety, compliance with the Commission's rules and regulations, and with the conditions of PNP's license. The inspectors reviewed selected procedures and records, conducted field walk-downs, and interviewed personnel. Based on the results of this inspection, no findings of significance were identified.

On September 30, 2012, NRC completed an inspection at PNP. As part of the inspection, inspectors evaluated outage activities for a forced outage that began on August 11, 2012, due to elevated PCS unidentified leakage. The inspectors observed or reviewed the reactor shutdown and cool down, outage equipment, configuration and risk management, electrical lineups, control and monitoring of decay heat removal, control of containment activities, personnel fatigue management, startup and heat-up activities, and identification and resolution of problems associated with the outage. The source of the leakage was determined to be from the pressure housing of the CRDM. Based on the results of this inspection, no findings were identified.

OIG learned that the agency did issue a finding and an associated non-cited violation of NRC's requirements. The finding was issued because of the licensee's failure to take corrective actions to prevent the recurrence of control rod drive mechanism cracking and leakage.

(Addresses Management and Performance Challenge # 2)

NRC Oversight of Licensee's Use of 10 CFR 50.59 Process To Replace San Onofre Nuclear Generating Station Stream Generators

OIG Strategic Goal: Safety

OIG completed an event inquiry in response to concerns pertaining to NRC's oversight of replacement steam generators installed at San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 in 2010 and 2011, respectively. Southern California Edison (SCE), the license holder for SONGS, replaced the steam generators subsequent to its application of the regulatory process described in 10 CFR 50.59, "Changes, Tests and Experiments." 10 CFR 50.59 establishes the conditions under which licensees may make changes to their facility or procedures and conduct tests or experiments without prior NRC approval (i.e., without an amendment to their NRC license).

In January 2012, approximately 1 year after SONGS replaced its Unit 3 steam generators, control room operators identified a leak in one of Unit 3's two steam generators, and the plant was shut down in accordance with plant procedures. Initial inspection confirmed one small leak in one tube in one of the two steam generators. Continuing inspections of all of the steam generator tubes in both Unit 3 steam generators discovered unexpected wear, including tubes rubbing against each other as well as against retainer bars. At the time the Unit 3 leak was identified, Unit 2 was shut down for a routine refueling outage. Subsequent inspections of all Unit 2 steam generator tubes also discovered unexpected wear.

Over the next approximate 1½ years, SCE pursued evaluation of Unit 3 and restart of Unit 2; however, on June 7, 2013, SCE announced its decision to permanently cease operations of SONGS Units 2 and 3. SCE's June 12, 2013, letter to NRC conveying this decision did not provide the reason for the permanent shutdown.

OIG's event inquiry examined NRC's oversight of SCE's application of the 10 CFR 50.59 process for the replacement steam generators in SONGS Units 2 and 3. OIG also sought to ascertain from NRC officials whether SONGS required a license amendment for the steam generator replacements and whether the problems at SONGS could have been identified through NRC's license amendment review process.

Background

Nuclear power reactors are licensed based on a given set of requirements, depending primarily on the type of plant. This set of requirements is called the plant's "licensing basis." A principal licensing basis document is the plant's final safety analysis report (FSAR). The FSAR and the plant's NRC license and associated technical specifications are the principal regulatory documents describing how the plant is designed, constructed, and operated. The FSAR is also a key reference document used by NRC inspectors during both plant construction and operation, and it must be sufficiently detailed to permit the staff to determine whether the plant can be built and operated without undue risk to public health and safety.

Because a plant's design and operation are not static, certain changes are necessary over the course of a facility's operating life. Reactor licensees must follow NRC regulations to justify and implement changes in the design basis and licensing basis for their facilities, and they are required to document such changes in the FSAR. 10 CFR 50.71(e) requires the FSAR to be periodically updated. The objectives of 10 CFR 50.71(e) are to ensure that licensees maintain the information in the updated FSAR (UFSAR) to reflect the current status of the facility and address new issues as they arise so that the UFSAR can be used as a reference document in safety analysis.

NRC has defined the changes that a licensee may make to a licensed facility without prior NRC approval. Pursuant to 10 CFR 50.59 (c)(1), the holder of a license may, without obtaining a license amendment, (1) make changes in the facility as described in the FSAR (as updated), or (2) make changes in the procedures as described in the

FSAR (as updated), and conduct tests or experiments not described in the FSAR (as updated) as long as a change to the technical specifications incorporated in the license is not required, and the change, test, or experiment does not meet any of the eight 10 CFR 50.59 (c)(2) criteria. If any of the criteria in 10 CFR 50.59 are not met (i.e., the change involves modification to the technical specifications or involves one of the eight criteria), the license holder must apply to NRC for a license amendment and obtain NRC's approval before implementing the change. NRC staff document their safety analysis of a license amendment request in a safety evaluation providing the technical, safety, and legal basis for NRC's disposition of the license amendment request.

Licensee Implementation of the 10 CFR 50.59 Process

The Nuclear Energy Institute's (NEI) November 2000 *Guidelines for 10 CFR 50.59 Implementation* (NEI 96-07)[2] identifies three steps in the 10 CFR 50.59 process:

- Applicability and Screening: Determine if a 10 CFR 50.59 evaluation is required. First, licensee determines if an evaluation is applicable to the proposed activity and, if so, performs screening to determine if the activity should be evaluated against the 10 CFR 50.59 evaluation criteria.

- Evaluation: If it is determined that a given activity requires a 10 CFR 50.59 evaluation, the licensee applies the eight 10 CFR 50.59 evaluation criteria (10 CFR 50.59 (c) (2) (i-viii)) to determine if a license amendment must be obtained from NRC. This is a written evaluation.

- Documentation and Reporting: Document and report to NRC the activities implemented under 10 CFR 50.59. Records maintained must include a written evaluation that provides the basis for the determination that the change, test, or experiment does not require a license amendment.

OIG learned that nuclear reactor licensees have used the 10 CFR 50.59 process thousands of times to make changes without NRC preapproval. Licensees conduct about 475 10 CFR 50.59 screenings per unit per year, and about 5 10 CFR 50.59 evaluations per unit per year for a nationwide total of about 49,000 screenings and evaluations per year.

Since 1989, 53 of the 65 plants that utilize steam generators have replaced their steam generators under 10 CFR 50.59, while 6 replacements were made subsequent to a license amendment.

NRC inspects licensees' application of the 10 CFR 50.59 process through an NRC Reactor Oversight Process (ROP) baseline inspection procedure, IP 71111.17, "Evaluations of Changes, Tests, or Experiments and Permanent

[2] *In its November 2000 Regulatory Guide 1.187, Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments, NRC states that NEI 96-07 provides methods that are acceptable to the NRC staff for complying with the provisions of 10 CFR 50.59.*

Plant Modifications." This triennial inspection is intended to provide assurance that required license amendments have been obtained.

Investigative Results:

OIG investigative findings are addressed in the following three areas:

I. Missed Opportunities During NRC Region IV 2009 Inspection

OIG found that NRC missed an opportunity during a 2009 triennial baseline inspection of SONGS' implementation of the 10 CFR 50.59 process to identify weaknesses in the SONGS steam generator 50.59 screening and evaluation package. While a Region IV inspection team selected the SONGS Unit 2 steam generator 10 CFR 50.59 screening and evaluation package as one of 35 items sampled during a 2009 triennial baseline ROP inspection at SONGS, the inspection team did not identify various shortcomings noted more recently by NRC subject matter experts who reviewed the steam generator screening and evaluation package subsequent to SONGS' shutdown due to problems with steam generator design.

The 2009 inspection team concluded from its review of the 35 items sampled that SONGS had correctly determined that the changes SONGS made could be made without a license amendment. However, the NRC subject matter experts who reviewed the Unit 2 steam generator screening and evaluation package following SONGS' shutdown identified questions pertaining to the Unit 2 steam generator 10 CFR 50.59 screening and evaluation, some of which NRC says cannot now be answered based on available information. The questions raised by the subject matter experts pertain to (1) insufficient support for 10 CFR 50.59 evaluation conclusions that contributed to the decision that a license amendment was not needed and (2) methodology changes that should have been considered for screening but were not listed in the screening documentation. OIG found that (1) without knowing whether everything that should have been screened was screened, and the outcomes of these screenings, and (2) without reviewing additional information concerning the evaluation conclusions, there is no assurance that NRC reached the correct conclusion in its 2009 inspection that SONGS did not need a license amendment for its steam generator replacement.

II. Augmented Inspection Team Review of SCE's 10 CFR 50.59 Evaluation

OIG found that although an NRC Region IV Augmented Inspection Team (AIT), established to assess the circumstances surrounding the tube leak and unexpected wear of tubes in the Unit 3 steam generators, included a review of the SONGS 50.59 steam generator package to determine whether SONGS needed a license amendment prior to installing the new steam generators, the AIT did not document an answer to this question. In its initial July 18, 2012, inspection report, the AIT communicated that the Office of Nuclear Reactor Regulation (NRR) Project Manager assigned to perform the review identified one unresolved item (URI number 10, "Change of methodologies associated with 10 CFR 50.59 review") for which additional information was needed to determine if performance

deficiencies exist or if the issues constituted violations of NRC requirements. The URI described two instances that failed to adequately address whether the change involved a departure of the method of evaluation described in the UFSAR. Although NRC's November 9, 2012, AIT followup report documented the closure of this URI, and stated that neither change would have required a license amendment, it did not answer the overall question of whether a license amendment was required.

The AIT Team Leader and the current Region IV Deputy Regional Administrator told OIG that based on what NRC reviewed during its inspections, the conclusion was that a license amendment was not needed, although each allowed that the sampling approach used to perform this assessment could have missed something. The Acting NRR Director said he could not determine if an amendment was needed or not due to the gaps that may exist regarding items that may require screening and/or evaluation. The current Region IV Deputy Regional Administrator said additional inspection would be required to answer whether a license amendment was required, and questioned whether it would be a prudent use of resources to go back and accomplish that. The former Region IV Deputy Regional Administrator said that in hindsight, he believes that SONGS should have requested a license amendment from NRC prior to making the change. He also believes the steam generator design was fundamentally flawed and would not have been approved as designed. He said the AIT discussed a potential 50.59 criteria violation because of the design issues; however, the AIT ultimately identified a design control violation.

OIG found that NRC's justification for closing out URI number 10 does not align with specific language in 10 CFR 50.59 concerning NRC approval for a change in methodology, but was based instead on Region IV's interpretation (in consultation with NRR) of the rule. 10 CFR 50.59 (a)(2)(ii) reflects that changes from a method described in the UFSAR to another method are permissible without NRC preapproval if that method has already been approved by the NRC for the "intended" application. In closing out the URI, however, the AIT followup report determined the change of methods would not have required a license amendment based on NRC's approval for the use of the method at other nuclear power plants in "similar" applications. OIG notes that while the AIT characterized the issue as a change in methodology, it justified closing the matter based on approval for a "similar" application rather than the "intended" application as stated by the rule.

III. NRC Oversight of SONGS UFSAR

OIG found that NRC does not consistently use one of its primary oversight methods to assess whether licensees are keeping their power plant licensing basis documentation up to date as required by 10 CFR 50.71(e). Although licensees are required, per 10 CFR 50.71(e), to biannually submit UFSAR updates reflecting the current status of the facility so that the document can be used as a reference document in safety analysis, the NRR project managers tasked to review these submittals do not always conduct the reviews within the required 90-day timeframe.

Moreover, although licensees also must biannually submit, per 10 CFR 50.59(d)(2), information concerning changes made under 10 CFR 50.59 without NRC prior approval, NRR project managers – who are instructed to consider this information during their review of 10 CFR 50.71(e) submittals – do not always take the 10 CFR 50.59(d)(2) information into consideration during their reviews. OIG found that while NRC expects a plant's UFSAR to accurately reflect a plant's licensing basis, the former Region IV Deputy Regional Administrator said that during the SONGS AIT, Region IV staff noted the licensee had made many changes to the steam generators over a 25-year period that were not reflected in the UFSAR or consistent with the original Safety Analysis Report.

OIG reviewed documentation of project manager reviews in two NRR branches and found project managers reviewed only 5 of the 21 most recently received licensee UFSAR submittals within the 90-day timeframe, while 7 were reviewed between 90 days and a year after receipt, and 9 reports more than a year after receipt. Moreover, only two of the project manager reviews contained a reference to review of 10 CFR 50.59 documentation submitted by licensees even though project manager guidance directs that this occurs. OIG also found that over a 10-year period, NRC staff documented two reviews of changes to SONGS' UFSAR, although the licensee submitted six UFSAR updates during this period as required, and neither NRC review mentioned consideration of 10 CFR 50.59 changes.

(Addresses Management and Performance Challenges #1, 2, 3, and 6)

Potential Violation of the False Claims Act by General Electric-Hitachi

OIG Strategic Goal: Safety

OIG initiated this investigation to provide technical assistance to the Department of Justice (DOJ) to support DOJ's investigation into the False Claims Act suit that was filed in the U.S. District Court for the Eastern District of North Carolina, captioned United States ex rel. Dandy v. General Electric-Hitachi (GEH) Nuclear Energy Americas, LLC, General Electric Company, 7:12-cv-009 (E.D.N.C.). This case was handled by DOJ's Civil Division, the U.S. Attorney's Office for the Eastern District of North Carolina, and OIGs for both the NRC and the Department of Energy (DOE).

In July 2007, the DOE awarded GEH a cooperative agreement for development of the Economically Simplified Boiling Water Reactor (the ESBWR Cooperative Agreement). Between 2007 and 2012, GEH received funding from DOE to cover up to half the cost of developing, engineering, and obtaining design certification for the ESBWR. On January 10, 2012, a Qui Tam[3] was filed in district court alleging that GEH had submitted and caused to be submitted false claims relative to the

[3] *Actions in which citizens are authorized to bring, as "private Attorneys General," lawsuits on behalf of the United States alleging frauds upon the government.*

ESBWR Cooperative Agreement by knowingly violating NRC requirements and knowingly submitting false statements and information to the NRC relative to an ESBWR component known as the steam dryer. DOJ intervened in the Civil Action on October 24, 2013.

Investigative Results:

DOJ determined that to avoid delay, uncertainty, inconvenience, and the expense of protracted litigations of the claims made, the best course of action was to enter a settlement agreement with GEH. Pursuant to 31 USC 3729-3733, GEH agreed to pay $2.7 million to the U.S. Government. OIG supported DOJ's investigation by providing technical support.

(Addresses Management and Performance Challenge #1)

Possible Pre- and Post-Employment Violations by Former NRC Manager

OIG Strategic Goal: Corporate Management

OIG completed an investigation regarding a retired NRC senior manager, who was alleged to have violated pre-employment statutes. Specifically, prior to the senior manager departing from NRC, the manager announced that he was retiring from the NRC to work for an NRC regulated licensee. During the investigation, OIG learned that after departing the NRC, the senior manager may have attempted to influence NRC resident inspectors during a public meeting on an issue. As a result, OIG broadened its investigation to determine if the retired manager also violated any post-employment statutes.

Potential violations relevant to this investigation are:

- 18 U.S.C. Section 207, "Restrictions on Former Officers, Employees, and Elected Officials of the Executive and Legislative Branches" (a former employee is barred from representing another person or entity by making a communication to or appearance before a Federal department, agency, or court concerning the same particular matter involving specific parties with which the former employee was involved while serving the Government).

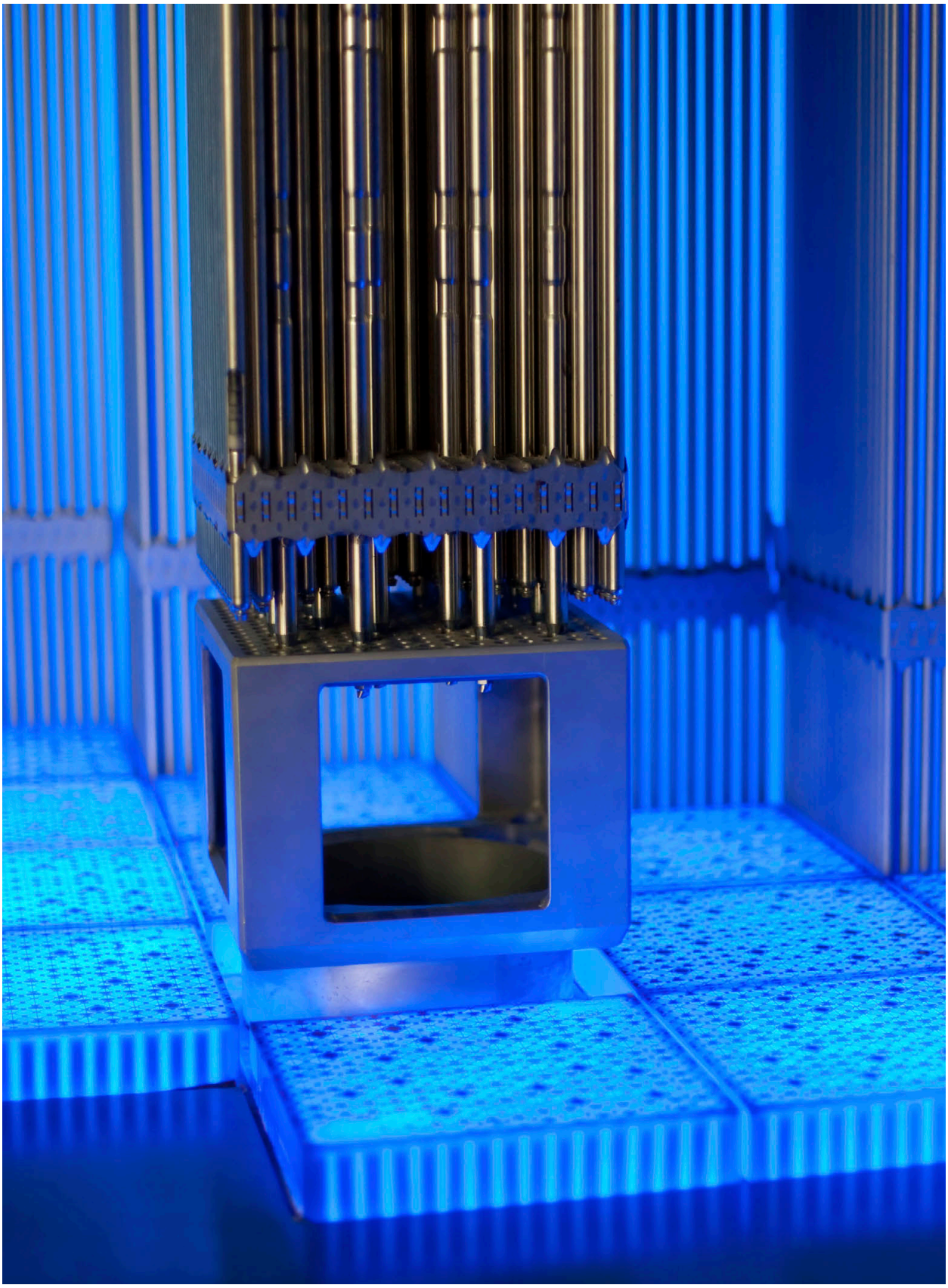
- 18 U.S.C. Section 208, Acts Affecting a Personal Financial Interest" (prohibits an Executive Branch employee from participating personally and substantially in a particular Government matter that will affect his own financial interests, as well as the financial interests of an organization in which he serves as an employee, or a person with whom he is negotiating for, or, has an arrangement concerning prospective employment).

Investigative Results:

OIG determined that the former NRC senior manager had communicated with a licensee regarding his employment opportunities prior to requesting NRC management to recuse him from activities involving the licensee; however, the former NRC manager did not have any influence on any decision or action pertaining to the licensee while serving as an NRC senior manager, prior to his recusal request. OIG also found that while the former NRC manager attempted to solicit information from NRC concerning regulatory issues after his retirement from NRC, he was unsuccessful in his attempt, and NRC subsequently issued him a letter to cease representing the licensee to NRC until a "cooling off" period had expired, in accordance with the post-employment restrictions.

DOJ declined to pursue criminal charges against the former NRC senior manager. The investigative report pertaining to this matter was provided to the NRC Office of the General Counsel for reporting to the Office of Government Ethics.

(Addresses Management and Performance Challenge #2)



Fuel Rod Assembly

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Congress created the Defense Nuclear Facilities Safety Board (Board) as an independent agency within the Executive Branch to identify the nature and consequences of potential threats to public health and safety at the Department of Energy's defense nuclear facilities, to elevate such issues to the highest levels of authority, and to inform the public. Since the Department of Energy is a self-regulating entity, the Board constitutes the only independent technical oversight of operations at the Nation's defense nuclear facilities. The Board is composed of experts in the field of nuclear safety with demonstrated competence and knowledge relevant to its independent investigative and oversight functions.

The Consolidated Appropriations Act, 2014, provided that notwithstanding any other provision of law, the Inspector General of the Nuclear Regulatory Commission is authorized in 2014 and subsequent years to exercise the same authorities with respect to the Defense Nuclear Facilities Safety Board, as determined by the Inspector General of the Nuclear Regulatory Commission, as the Inspector General exercises under the *Inspector General Act of 1978* (5 U.S.C. App.) with respect to the Nuclear Regulatory Commission.

Inspector General's Assessment of the Most Serious Management and Performance Challenges Facing the Board

On January 24, 2000, Congress enacted the Reports Consolidation Act of 2000, requiring Federal agencies to provide financial and performance management information in a more meaningful and useful format for Congress, the President, and the public. The act requires the IG of each Federal agency to annually summarize what he or she considers to be the most serious management and performance challenges facing the agency and to assess the agency's progress in addressing those challenges. Congress left the determination and threshold of what constitutes a most serious management and performance challenge to the discretion of the IGs.

The IG identified the following as the most serious management and performance challenges facing the Board as of October 1, 2014:

1. Human capital management.

2. Internal controls.

3. Change management.

(Addresses All Management and Performance Challenges.)

BOARD AUDITS

Audit Summaries

Audit of the Board's Compliance With the Sunshine Act

The purpose of the *Government in the Sunshine Act* (Sunshine Act), is to open Federal Government deliberation processes to public scrutiny. The act applies to agencies, such as the Board, which are headed by presidentially appointed collegial bodies and requires that when these agency heads deliberate on behalf of their agencies, these meetings be publicly announced and open to the public.

Rules Implementing the Government in the Sunshine Act convey the Board's Sunshine Act requirements. A meeting under the Board's Sunshine Act requirements is the deliberation of three or more Board members (a quorum) where deliberations determine or result in the joint conduct or disposition of official Board business. The Board also holds public hearings. When a hearing has a quorum in attendance, the hearing is considered a combined meeting and hearing. Staff publicize hearings in the Federal Register as public meetings and hearings in case Board members choose to deliberate. These hearings/meetings are open to the public and the Board posts both transcripts and video recordings to the Board's public Web site. Although the videos are available for a short period of time, CDs of the hearings may always be requested.

The audit objective was to determine if the Board complies with the requirements of the Sunshine Act.

Audit Results:

The Board is in compliance with Sunshine Act requirements for open meetings and, during the time period reviewed, did not hold any closed meetings. In a recent report, the U.S. Government Accountability Office had findings and made recommendations intended to promote transparency and openness at the Board with regard to its notational voting process, which entails the circulation of written materials for Board members to review, comment on, and vote in writing.[4] Therefore, OIG made no recommendations.

(Addresses Management and Performance Challenge #2)

[4] *Defense Nuclear Facilities Safety Board, Improvements Needed to Strengthen Internal Control and Promote Transparency, GAO-15-181 (Washington, D.C.: January 2015).*

Results of the Audit of the Board's Financial Statements for FYs 2014 and 2013

The *Accountability for Tax Dollars Act of 2002* requires the IG or an independent external auditor, as determined by the IG, to annually audit the Board's financial statements in accordance with applicable standards. The audit, conducted by Acuity Consulting, Inc., under a contract with OIG, includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. It also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall financial statement presentation.

Audit Results:

Financial Statements. The auditors expressed an unmodified opinion on the agency's FY 2013 and FY 2014 financial statements.

Internal Controls Over Financial Reporting. The auditors expressed an unqualified opinion, with two significant deficiencies: the Board did not consistently implement effective internal control over its aged population of undelivered orders to determine whether they remained valid, and the Board did not perform any testing of internal controls to independently verify they were operating effectively.

Compliance with Laws and Regulations. The auditors found no reportable instances of noncompliance.

(Addresses Management and Performance Challenge #2)

Independent Evaluation of the Board's Implementation of FISMA for FY 2014

FISMA outlines the information security management requirements for agencies, which include an annual independent evaluation of an agency's information security program and practices to determine their effectiveness. This evaluation must include testing the effectiveness of information security policies, procedures, and practices for a representative subset of the agency's information systems. The evaluation also must include an assessment of compliance with FISMA requirements and related information security policies, procedures, standards, and guidelines. FISMA requires the annual evaluation to be performed by the agency's OIG or by an independent external auditor.

The evaluation objective was to perform an independent evaluation of the Board's implementation of FISMA for FY 2014.

Evaluation Results:

The Board has issued a directive and operating procedure for implementing its information systems security program (ISSP). However, the majority of the policies and procedures supporting the Board's ISSP are draft documents and, therefore, have not been fully implemented. While the Board's ISSP includes all of the elements required by FISMA, OMB, and the National Institute of Standards and Technology, OIG was not able to evaluate fully every element of the Board's ISSP due to the lack of final, approved policies and procedures. OIG was able to evaluate some elements of the Board's ISSP and identified the following ISSP weaknesses:

- Continuous monitoring is not performed as required.
- The security assessment and authorization of the Board's general support system did not follow the National Institute of Standards and Technology risk management framework.
- The Board's plan of action and milestones management is inadequate.
- Oversight of systems operated by contactors or other agencies is inadequate.

(Addresses Management and Performance Challenge #2)

Audits in Progress

Audit of the Board's Travel Card and Travel Program

The *Government Charge Card Abuse Prevention Act of 2012* (Charge Card Act), Public Law 112-194, requires all executive branch agencies to establish and maintain safeguards and internal controls for charge cards. The Office of Management and Budget provided supplemental guidance through Memorandum M-13-21, *Implementation of the Government Charge Card Abuse Prevention Act of 2012*, dated September 6, 2013. The guidance requires each agency head to provide an annual certification that the appropriate policies and controls are in place or that corrective actions have been taken to mitigate the risk of fraud and inappropriate charge card practices. The annual certification should be included as part of the existing annual assurance statement under the Federal Managers' Financial Integrity Act of 1982 (31 U.S.C. 3512(d)(2)).

Under the Charge Card Act, IGs are required to conduct periodic risk assessments of agency charge card programs to analyze the risks of illegal, improper, or erroneous purchases. These risk assessments shall be used by OIG to determine whether an audit or review should be performed and what the nature, scope, and timing of the audit should be. OIG conducted a risk assessment for the Board Travel Card Program. As a result of this risk assessment, OIG has determined that an audit of the Board's Travel Card and Travel Program should be performed.

The audit objective is to determine whether internal controls are in place and operating effectively to maintain compliance with applicable travel card and travel program laws, regulations, and Board policies.

Survey of the Board's Culture and Climate

Culture is defined as the complex sum of the mission, characteristics, and policies of an organization, and the thoughts and actions of its individual members which, in the case of the Board, support nuclear health and safety as overriding priorities. Climate refers to the current work environment which affects employees' performance and behavior.

Conducting an initial survey to evaluate the current safety culture and climate of the Board will facilitate identification of the organization's strengths and opportunities for improvement, as it continues to experience significant challenges. These challenges include the implementation of new policies and oversight mechanisms, staff turnover, operating with a reduced budget, and legislation that froze Federal civilian pay rates. The survey will also provide an opportunity for benchmarking against national and Government norms.

The survey objectives are to (1) measure the Board's safety culture and climate to identify areas of strength and opportunities for improvement, and (2) provide, where practical, benchmarks for the qualitative and quantitative findings against other organizations.

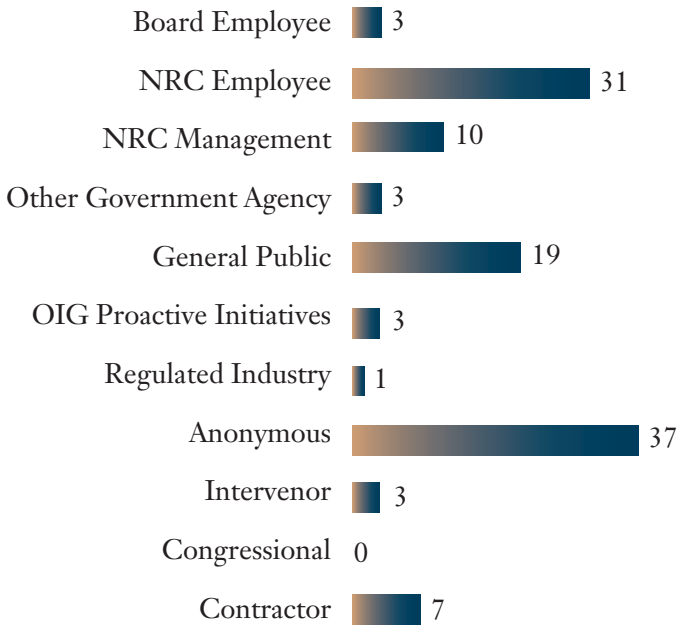
Pilgrim Nuclear Power Station. *Photo courtesy of Entergy*

SUMMARY OF NRC OIG ACCOMPLISHMENTS

October 1, 2014, through March 31, 2015

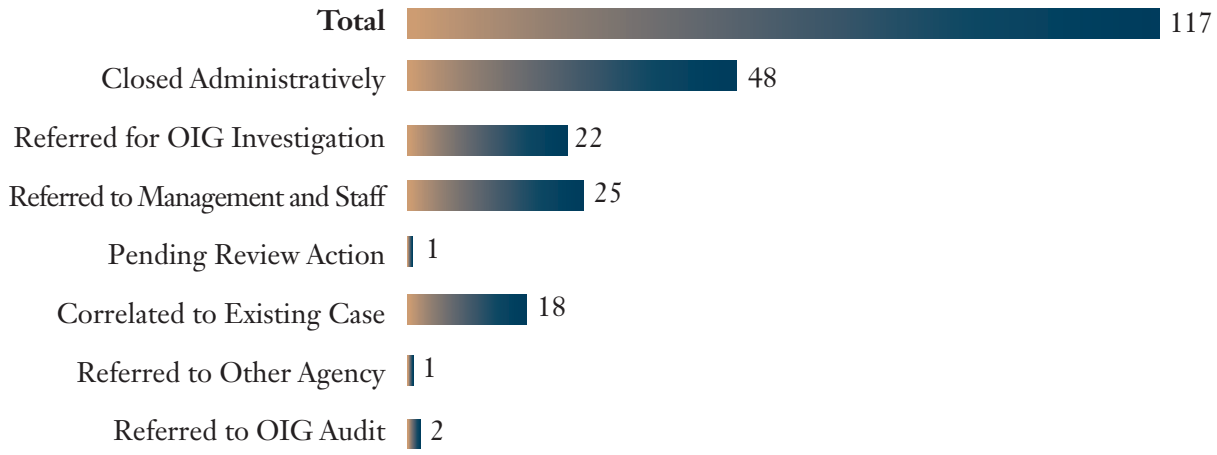
Investigative Statistics

Source of Allegations



Allegations resulting from Hotline calls: 50 **Total: 117**

Disposition of Allegations



Status of Investigations

DOJ Referrals 1
DOJ Acceptance 0
DOJ Pending 0
DOJ Declinations 1
Criminal Convictions 0
Criminal Penalty Fines 0
Civil Recovery $850,500
NRC Administrative Actions:
- Counseling and Letter of Reprimand 1
- Terminations and Resignations 2
- Suspensions and Demotions 1
- Other (Letter from Chairman, Review of Policy and ADR) 1

State Referrals 1
State Declinations 1
State Accepted 0
PFCRA[5] Referral 1
PFCRA Acceptance 0
PFCRA Declinations 0

Summary of Investigations

Classification of Investigations	Carryover	Opened Cases	Closed Cases	Cases in Progress
Conflict of Interest	1	0	0	1
Employee Misconduct	8	11	5	14
External Fraud	7	1	1	7
False Statements	3	1	0	4
Management Misconduct	11	7	3	15
Miscellaneous	3	3	1	5
Proactive Initiatives	9	0	1	8
Technical Allegations	5	2	1	6
Theft	1	1	2	0
Grand Total	**48**	**26**	**14**	**60**

[5] *Program Fraud Civil Remedies Act.*

NRC Audit Listings

Date	Title	Audit Number
03/19/2015	Audit of NRC's Internal Controls Over Fee Revenue	OIG-15-A-12
03/16/2015	Audit of NRC's Fiscal Year 2014 Compliance With Improper Payment Laws	OIG-15-A-11
02/12/2015	Transmittal of the Independent Auditors' Report on the Summary Financial Statements	OIG-15-A-10
02/11/2015	Audit of NRC's IT Technology Procurement Process	OIG-15-A-09
02/10/2015	Audit of NRC's Process for Ensuring Integrity In Scientific Research	OIG-15-A-08
02/10/2015	Audit of NRC's Implementation of the Federal Managers' Financial Integrity Act for Fiscal Year 2014	OIG-15-A-07
02/10/2015	Audit of NRC's Oversight of Spent Fuel Pools	OIG-15-A-06
11/25/2014	Audit of NRC's Task Interface Agreement Process	OIG-15-A-05
11/18/2014	Independent Auditors' Report on the U.S. Nuclear Regulatory Commission's Closing Package Financial Statements as of September 30, 2014 and 2013 and for the Years then Ended	OIG-15-A-04
11/14/2014	Results of the Audit of the United States Nuclear Regulatory Commission's Financial Statements for Fiscal Years 2014 and 2013	OIG-15-A-03
11/13/2014	Independent Evaluation of NRC's Implementation of the Federal Information Security Management Act for Fiscal Year 2014	OIG-15-A-02
10/16/2014	Inspector General's Assessment of the Most Serious Management and Performance Challenges	OIG-15-A-01

Board Audit Listings

Date	Title	Audit Number
03/16/2015	Audit of the Defense Nuclear Facilities Safety Board's Compliance with the Sunshine Act	DNFSB-15-A-04
11/14/2014	Results of the Audit of the Defense Nuclear Facilities Safety Board's Financial Statements for Fiscal Years 2014 and 2013	DNFSB-15-A-03
11/12/2014	Independent Evaluation of the Board's Implementation of the Federal Information Security Management Act for Fiscal Year 2014	DNFSB-15-A-02
10/01/2014	Inspector General's Assessment of the Most Serious Management and Performance Challenges Facing the Defense Nuclear Facilities Safety Board	DNFSB-15-A-01

NRC Contract Audit Reports

OIG Issued Date	Contractor/Title/ Contract Number	Questioned Costs (Dollars)	Unsupported Costs (Dollars)
03/19/2015	**Southwest Research Institute** Independent Audit Report on Southwest Research Institute's Disclosed Accounting Practice Changes NRC-02-04-014 NRC-02-06-018 NRC-02-06-021 NRC-02-07-006 NRC-03-09-070 NRC-03-20-066 NRC-03-10-070 NRC-03-10-078 NRC-03-10-081 NRC-04-07-108 NRC-04-10-144 NRC-41-08-004 NRC-41-09-001 NRC-HQ-11-C-03-0047 NRC-HQ-11-C-03-0058	0	0

Audit Resolution Activities

TABLE I

OIG Reports Containing Questioned Costs[6]

Reports		Number of Reports	Questioned Costs (Dollars)	Unsupported Costs (Dollars)
A.	For which no management decision had been made by the commencement of the reporting 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:			
	(i) dollar value of disallowed costs	0	0	0
	(ii) dollar value of costs not disallowed	0	0	0
D.	For which no management decision had been made by the end of the reporting period	0	0	0

[6] *Questioned costs are costs that are questioned by OIG because of an alleged violation of a provision of a law, regulation, contract, grant, cooperative agreement, or other agreement or document governing the expenditure of funds; a finding that, at the time of the audit, such costs are not supported by adequate documentation; or a finding that the expenditure of funds for the intended purpose is unnecessary or unreasonable.*

TABLE II

OIG Reports Issued with Recommendations That Funds Be Put to Better Use[7]

Reports		Number of Reports	Dollar Value of Funds
A.	For which no management decision had been made by the commencement of the reporting period	0	0
B.	Which were issued during the reporting period	0	0
C.	For which a management decision was made during the reporting period:		
	(i) dollar value of recommendations that were agreed to by management	0	0
	(ii) dollar value of recommendations that were not agreed to by management	0	0
D.	For which no management decision had been made by the end of the reporting period	0	0

[7] *A "recommendation that funds be put to better use" is a recommendation by OIG that funds could be used more efficiently if NRC or Board management took actions to implement and complete the recommendation, including reductions in outlays; deobligation of funds from programs or operations; withdrawal of interest subsidy costs on loans or loan guarantees, insurance, or bonds; costs not incurred by implementing recommended improvements related to the operations of NRC or the Board, a contractor, or a grantee; avoidance of unnecessary expenditures noted in preaward reviews of contract or grant agreements; or any other savings which are specifically identified.*

TABLE III

NRC Significant Recommendations Described in Previous Semiannual Reports on Which Corrective Action Has Not Been Completed

Date	Report Title	Number
5/26/2003	**Audit of NRC's Regulatory Oversight of Special Nuclear Materials**	**OIG-03-A-15**
	Recommendation 1: Conduct periodic inspections to verify that material licensees comply with material control and accountability (MC&A) requirements, including, but not limited to, visual inspections of licensees' special nuclear material (SNM) inventories and validation of reported information.	
	Recommendation 3: Document the basis of the approach used to risk inform NRC's oversight of MC&A activities for all types of materials licensees.	
2/02/2009	**Audit of the Committee to Review Generic Requirements**	**OIG-09-A-06**
	Recommendation 1: Develop, document, implement, and communicate an agencywide process for reviewing backfit issues to ensure that generic backfit are appropriately justified based on NRC regulations and policy.	
7/12/2012	**Audit of NRC's Inspections, Test, Analyses and Acceptance Criteria (ITAAC) Process**	**OIG-12-A-16**
	Recommendation 10: Develop and implement a change management process to address future change in the ITAAC process that can create barriers to effective communication and coordination.	

ABBREVIATIONS AND ACRONYMS

AIT	Augmented Inspection Team
CFR	Code of Federal Regulations
CRDM	control rod drive mechanism
cROP	construction reactor oversight process
DH	Directive Handbook
DOE	Department of Energy
DOJ	Department of Justice
DPO	Differing Professional Opinion
ESBWR	Economically Simplified Boiling Water Reactor
FISMA	Federal Information Security Management Act of 2002
FMFIA	Federal Managers' Financial Integrity Act
FSAR	final safety analysis report
FY	fiscal year
GEH	General Electric-Hitachi
gpm	gallons per minute
IAM	Issue Area Monitor
IG	Inspector General
IPERA	Improper Payments Elimination Recovery Act of 2010
IPERIA	Improper Payments Elimination and Recovery Improvement Act of 2012
IPIA	Improper Payments Information Act of 2002
ISSP	information systems security program
IT	information technology
ITAAC	inspections, tests, analyses, and acceptance criteria
LLRW	low-level radioactive waste
MCLA	material control and accountability
MD	Management Directive
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation (NRC)
OIG	Office of the Inspector General
OMB	Office of Management and Budget
PAR	Performance and Accountability Report
PCS	primary coolant system
PFCRA	Program Fraud Civil Remedies Act
PNP	Palisades Nuclear Plant
POA&M	plan of action and milestone management
ROP	Reactor Oversight Process
SCE	Southern California Edison
SNM	special nuclear material
SONGS	San Onofre Nuclear Generating Station
TIA	Task Interface Agreement
UFSAR	updated FSAR
URI	unresolved item
WBL	Web-Based Licensing

REPORTING REQUIREMENTS

The Inspector General Act of 1978, as amended (1988), specifies reporting requirements for semiannual reports. This index cross-references those requirements to the applicable pages where they are fulfilled in this report.

Citation	Reporting Requirements	Page
Section 4(a)(2)	Review of Legislation and Regulations	7–8
Section 5(a)(1)	Significant Problems, Abuses, and Deficiencies	10–19, 25–33, 35–38
Section 5(a)(2)	Recommendations for Corrective Action	10–19, 35–38
Section 5(a)(3)	Prior Significant Recommendations Not Yet Completed	48
Section 5(a)(4)	Matters Referred to Prosecutive Authorities	42
Section 5(a)(5)	Information or Assistance Refused	None
Section 5(a)(6)	Listing of Audit Reports	43–44
Section 5(a)(7)	Summary of Significant Reports	10–19, 25–33, 35–38
Section 5(a)(8)	Audit Reports — Questioned Costs	46
Section 5(a)(9)	Audit Reports — Funds Put to Better Use	47
Section 5(a)(10)	Audit Reports Issued Before Commencement of the Reporting Period for Which No Management Decision Has Been Made	None
Section 5(a)(11)	Significant Revised Management Decisions	None
Section 5(a)(12)	Significant Management Decisions With Which the OIG Disagreed	None

Sec. 989C. of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Public Law 111-203) requires Inspectors General to include the results of any peer review conducted by another Office of Inspector General during the reporting period; or if no peer review was conducted, a statement identifying the date of the last peer review conducted by another Office of Inspector General; and a list of any peer review conducted by the Inspector General of another Office of the Inspector General during the reporting period.

Section 989C.	Peer Review Information	51

APPENDIX

Peer Review Information

The OIG Audit and Investigative Programs undergo a peer review every three years.

Peer Reviews of NRC OIG Conducted by Another Office of Inspector General

Investigations

The NRC OIG Investigative program was peer reviewed most recently by the Corporation for National and Community Service Office of Inspector General on September 16, 2013.

Audits

The NRC OIG Audit Program was peer reviewed most recently by the National Archives and Records Administration Office of Inspector General on September 27, 2012.

OIG STRATEGIC GOALS

1. Safety: Strengthen NRC's efforts to protect public health and safety and the environment.
2. Security: Enhance NRC's efforts to increase security in response to an evolving threat environment.
3. Corporate Management: Increase the economy, efficiency, and effectiveness with which NRC manages and exercises stewardship over its resources.

The NRC OIG Hotline

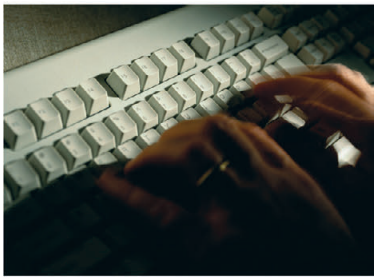
The Hotline Program provides NRC and DNFSB employees, other Government employees, licensee/utility employees, contractors, and the public with a confidential means of reporting suspicious activity concerning fraud, waste, abuse, and employee or management misconduct. Mismanagement of agency programs or danger to public health and safety may also be reported. We do not attempt to identify persons contacting the Hotline.

What should be reported:

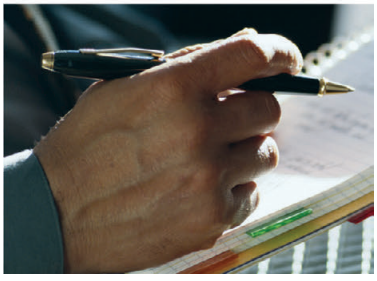
- Contract and Procurement Irregularities
- Conflicts of Interest
- Theft and Misuse of Property
- Travel Fraud
- Misconduct
- Abuse of Authority
- Misuse of Government Credit Card
- Time and Attendance Abuse
- Misuse of Information Technology Resources
- Program Mismanagement

Ways To Contact the OIG

Call:
OIG Hotline
1-800-233-3497
TDD: 1-800-270-2787
7:00 a.m. – 4:00 p.m. (EST)
After hours, please leave a message.



Submit:
Online Form
www.nrc.gov
Click on Inspector General
Click on OIG Hotline



Write:
U.S. Nuclear Regulatory Commission
Office of the Inspector General
Hotline Program, MS O5 E13
11555 Rockville Pike
Rockville, MD 20852-2738

NUREG-1415, Vol. 28, No. 2
April 2015

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