U.S.NRC

United States Nuclear Regulatory Commission

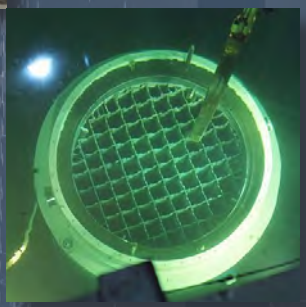
Protecting People and the Environment

Semiannual Report to Congress

April 1, 2011–September 30, 2011

OFFICE OF THE INSPECTOR GENERAL

U.S. NUCLEAR REGULATORY COMMISSION

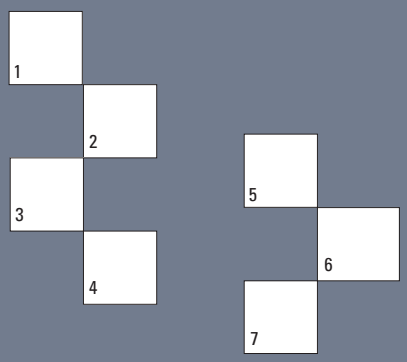


OIG VISION

"We are agents of positive change striving for continuous improvement in our agency's management and program operations."

OIG MISSION

NRC OIG's mission is to (1) independently and objectively conduct and supervise audits and investigations relating to NRC's programs and operations; (2) prevent and detect fraud, waste, and abuse; and (3) promote economy, efficiency, and effectiveness in NRC's programs and operations.



COVER PHOTOS:

1. Spent fuel stored in pool.
   Photo courtesy of the Nuclear Energy Institute.
2. Dual purpose canister being inserted into transfer cask prior to used fuel loading at nuclear reactor site.
   Photo courtesy of Holtec International, Inc.
3. Fuel storage basket inside dual purpose canister is visible.
   Photo courtesy of Holtec International, Inc.
4. Spent fuel assembly being loaded into a Holtec dual purpose canister.
   Photo courtesy of Holtec International, Inc.
5. Dual purpose canister lid being installed underwater.
   Photo courtesy of Holtec International, Inc.
6. Spent fuel cask transported to storage.
7. Dry cask storage of spent nuclear fuel.

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 April 1, 2011, to September 30, 2011.

Our work reflects the legislative mandate of the Inspector General Act, which is to identify and prevent fraud, waste, and abuse through the conduct of audits and investigations relating to NRC programs and operations. The audits and investigations highlighted in this report demonstrate our commitment to ensuring integrity and efficiency in NRC's programs and operations.

NRC continues to perform its critical agency functions to ensure the safe and secure civilian use of byproduct, source, and special nuclear materials. During this reporting period, NRC OIG continued its focus on critical agency operations to include NRC's oversight of independent spent fuel storage installations, master materials licensees, and tritium production at commercial nuclear power plants. Our efforts to work with NRC to identify risks and vulnerabilities early on affords the agency the opportunity to take any necessary corrective action.

During this semiannual period, we issued 11 performance audit reports and analyzed 11 contract audit reports. As a result of this work, OIG made a number of recommendations to improve the effective and efficient operation of NRC's safety, security, and corporate management programs. OIG also opened 30 investigations, and completed 33 cases. Five of the open cases were referred to the Department of Justice, and 19 allegations were referred to NRC management for action.

NRC OIG remains committed to the integrity, efficiency, and effectiveness of NRC programs and operations. The audits, investigations, and other activities highlighted in this report demonstrate that ongoing commitment. I would like to acknowledge our auditors, investigators, and support staff for their superior work and commitment to the mission of our office.

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

Hubert T. Bell
Inspector General

Dry storage casks

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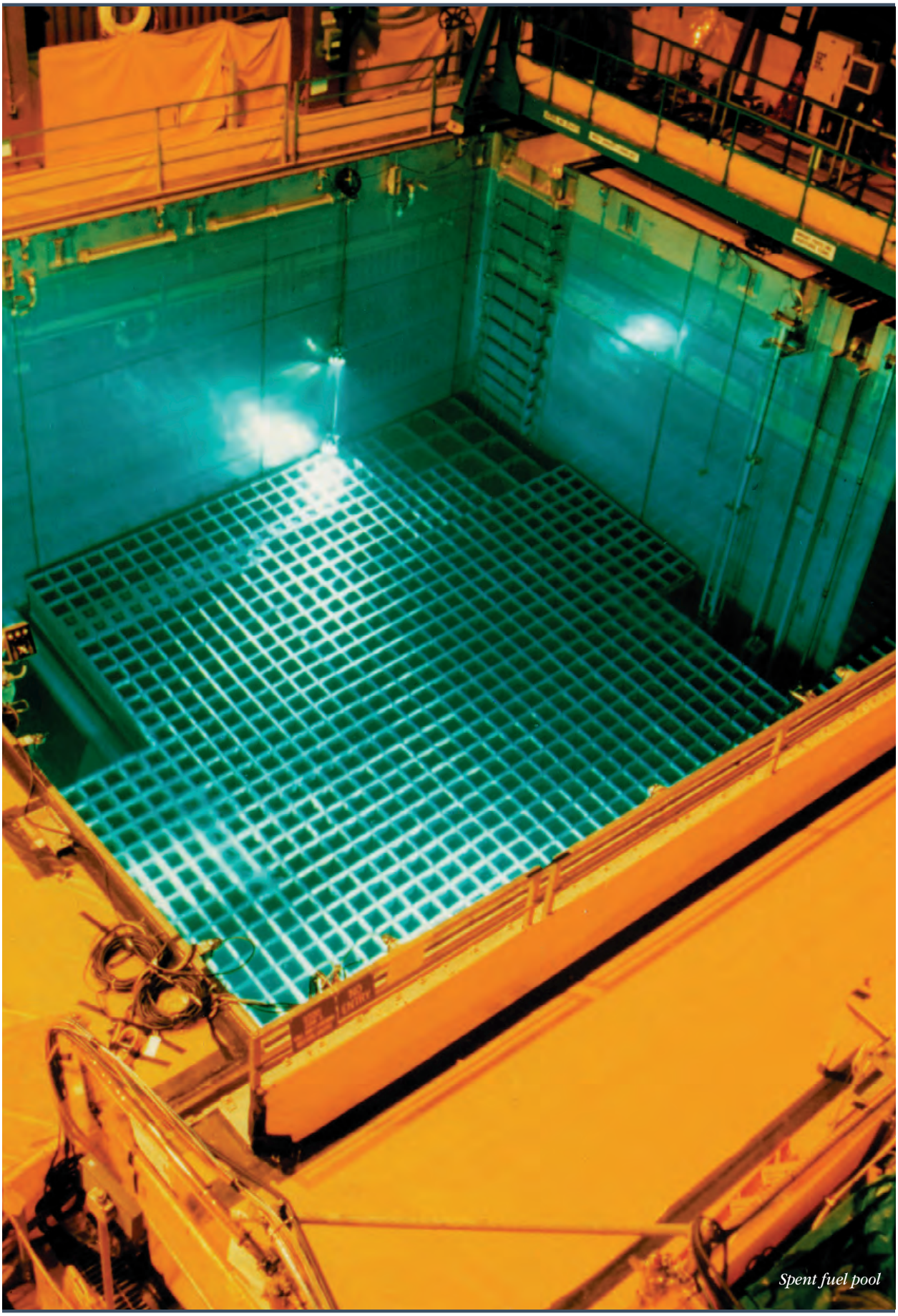


Spent fuel pool

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.

AUDITS

- With the anticipated growth of nuclear power in the United States and the uncertainty over the permanent storage of spent fuel at Yucca Mountain, nuclear power plants have a growing need for additional spent fuel storage capacity to support continued operation. Independent spent fuel storage installations (ISFSI) are NRC-licensed facilities that store dry casks containing used nuclear reactor fuel, otherwise known as spent fuel. Most ISFSIs are located at operating reactor sites. An ISFSI typically consists of a concrete storage pad, storage containers (casks), and any support facilities. OIG conducted two audits related to ISFSI safety and security, respectively. The ISFSI safety audit objective was to determine if NRC has the requisite processes in place for reviewing ISFSI safety. The ISFSI security audit objective was to determine the adequacy of NRC's oversight of ISFSI security.

- On March 21, 2007, NRC initiated a shuttle service that now operates between its main headquarters complex (White Flint) in Rockville, Maryland, and several nearby interim facilities opened to provide temporary workspace during the construction of a new office building at White Flint. OIG conducted an audit of NRC's shuttle service based on a request made by the Office of the Executive Director for Operations. The audit objective was to determine the effectiveness, efficiency, and economy of the shuttle service versus public transportation.

- The Governmentwide Purchase Card Program was established in the late 1980s as a way for agencies to streamline the Federal acquisition processes by providing a low-cost, efficient vehicle for obtaining goods and services directly from vendors. Purchase cards can be used for micro-purchases, as well as to place orders and make payments on contract activities. From December 1, 2008, through March 31, 2010, NRC had about 160 purchase cardholders who incurred transactions totaling approximately $8.3 million. The audit objective was to determine whether NRC has established and implemented an effective system of internal control over the use of Federal purchase cards.

- NRC regulates medical, industrial, and academic uses of nuclear materials through a combination of regulatory requirements, including licensing, inspection, and enforcement. NRC also issues Master Materials Licenses (MML) to Federal agencies. An MML is a materials license issued to a Federal agency authorizing use of material at multiple sites that fall under the jurisdiction of the Federal agency. The MML allows the Federal agency to conduct some activities as a regulator, such as issuing permits for radioactive materials use at the sites that use materials (referred to as permittees), conducting inspections, handling allegations, following up on incidents and events, and taking enforcement actions. NRC, in turn, provides oversight of MML licensees and permittees through various means. The audit objective was to determine whether NRC's oversight of MML licensees adequately protects public health and safety and the environment.

- NRC staff process on agency networks a category of sensitive unclassified information unique to NRC called Sensitive Unclassified Non-Safeguards Information (SUNSI). NRC defines SUNSI as "…any information of which the loss, misuse, modification, or unauthorized access can reasonably be foreseen to harm the public interest, the commercial or financial interests of the entity or individual to whom the information pertains, the conduct of NRC and Federal programs, or the personal privacy of individuals." NRC staff process electronic documents containing SUNSI in a variety of ways. Regardless of how NRC employees exchange SUNSI on agency networks, Federal law requires that NRC maintain adequate controls over the confidentiality, integrity, and availability of this information. The audit objective was to assess whether NRC effectively protects electronic documents containing Personally Identifiable Information and other types of SUNSI on NRC's shared network drives.

- NRC implemented the iLearn Learning Management System in April 2008 in response to the E-Government Act of 2002. iLearn is a vehicle for providing training distribution and tracking services directly to employees. It serves as a central point for training activities across the agency and allows employees to see all NRC-offered courses, develop a learning plan, register for training, track training history, access online training, and complete evaluations from their desktop. The audit objective was to determine the effectiveness of the iLearn Learning Management System to support the agency's current and future training needs.

- One way NRC provides oversight of licensees is through the management of regulatory commitments. Commitments are docketed, written statements describing a specific action that the licensee has agreed or volunteered to take. They often result from a licensing action such as a license amendment, including power uprates, or from a generic communication, such as generic letters and bulletins. Commitments are neither legally binding nor obligations of a license; however, a commitment may be escalated into a legally binding obligation only if NRC staff deems that the commitment is essential for ensuring public health and safety. Licensees are responsible for creating, tracking, and handling all commitments made to NRC. The audit objective was to assess the extent to which NRC appropriately and consistently utilizes and manages regulatory commitments for power reactor licensees.

- Since the 1970s, NRC has used probabilistic risk assessment (PRA) as a tool for assessing, in a realistic manner, the strengths and weaknesses of nuclear plant design and operation. PRA is a technical analysis that systematically answers three questions: (1) What can go wrong? (2) How likely is it to happen? and (3) What are the consequences? NRC developed the Systems Analysis Programs for Hands-on Integrated Reliability Evaluations, or SAPHIRE, to aid in conducting these PRA evaluations. SAPHIRE is a software tool that performs the highly complex mathematics behind PRA. The audit objective was to determine if the system meets its required operational capabilities and applicable security controls.

- Tritium is a radioactive isotope of hydrogen used in U.S. nuclear weapons. In 1999, Federal law authorized tritium production at two commercial nuclear power plants owned by the Tennessee Valley Authority (TVA). Tritium production at commercial nuclear power plants involves the redesign of an important reactor core component as well as coordination between NRC and DOE. To produce tritium, the normal absorbing material in the reactor core, boron, is replaced by an isotope of lithium, requiring a redesign of the absorber rods. That isotope of lithium is an absorber like boron, but the nuclear reaction it undergoes during the absorption process also produces tritium. Such rods are called tritium producing burnable absorber rods (TPBAR). NRC has issued license amendments to TVA allowing loading of TPBARs at Watts Bar Nuclear Power Plant Unit 1 and Sequoyah Nuclear Power Plant Units 1 and 2, although tritium production has occurred only at Watts Bar Unit 1. The evaluation objective was to determine the effectiveness of NRC's oversight of tritium production at commercial nuclear reactors.

- NRC offers a physical fitness program as part of its wellness services program for agency employees. The fitness program was established to provide employees a fitness strategy to enhance job performance, decrease absenteeism, and prepare employees to meet the physical requirements of specified positions. This audit focused on the headquarters onsite fitness center, which currently has approximately 700 members. At the agency's request, OIG conducted an audit of the effectiveness of NRC's internal control over fitness center membership fees at headquarters. The request was made subsequent to NRC's identification of three concerns involving fitness center membership fees.

INVESTIGATIONS

- OIG conducted an investigation based on an allegation from a former NRC licensee employee that the NRC Region II Office of Investigations did not adequately investigate the alleger's discrimination complaint against the licensee.

- OIG conducted an investigation based on a concern that NRC's regulations concerning patients treated with radioisotopes, and the criteria for which these patients are released from medical care, could potentially irradiate unknowing members of the public. As a result of the concern, OIG conducted a limited review of NRC's oversight of licensees that administer Iodine-131, a radiopharmaceutical commonly used in therapeutic treatments of hyperthyroidism and thyroid carcinoma.

- OIG conducted an investigation based on an allegation submitted by a former NRC employee that the NRC Office of the General Counsel (OGC) issued conflicting statements addressing the recovery of cancer treatment patients in hotels. According to the allegation, OGC concurred with an NRC document sent to NRC Region I that stated the release of cancer treatment patients "to a hotel was not prohibited by

[NRC] regulations"; however, in November 2008, OGC filed a legal brief with the U.S. Court of Appeals for the Ninth Circuit that stated, "NRC's rule [10 CFR Part 35.75] does not permit or encourage doctors to send treated patients to hotels."

- OIG conducted an investigation based on an allegation by a former NRC employee that the NRC Division of License Renewal project schedule for the Supplemental Environmental Impact Statement was not ideal for the lengthy license renewal review process. The alleger also stated that Division of License Renewal management pushes staff to complete these reviews and the process yields inaccuracies. Further, there were concerns with the overall accuracy of the Salem/Hope Creek Supplemental Environmental Impact Statement findings.

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 NRC headquarters in Rockville, Maryland, and holds public hearings, public meetings in local areas and at NRC offices, and 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 (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. 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, IG concepts of good governance, accountability, and monetary recovery encourages 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 (1) independently and objectively conduct and supervise audits and investigations relating to NRC programs and operations; (2) prevent and detect fraud, waste, and abuse; and (3) promote economy, efficiency, and effectiveness in NRC programs and operations.

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*[1] that includes the major challenges and critical risk areas facing NRC.

The plan identifies the priorities of OIG 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.**

[1] *OIG's current Strategic Plan covers the period FY 2008 through FY 2013.*

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 issue 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; the OIG audits; the OIG Hotline; and IG initiatives directed at areas bearing a high potential for fraud, waste, and abuse.

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

- 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 ACTIVITIES

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 (MD), 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 and requests responsive action within specified timeframes.

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's 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, OIG comments include a request for written replies within 90 days, with either a substantive reply or status of issues raised by OIG.

During this reporting period, OIG commented on several MDs related to licensee oversight and employment and staffing. Documents related to information and financial management, transportation, and travel were also reviewed. In addition, the agency provided responsive and corrective action for matters previously reviewed by OIG. Significant regulatory review comments provided by OIG are summarized below.

Management Directives

Four draft directives were reviewed relating to licensee oversight.

Draft MD and Handbook 8.2, "Nuclear Regulatory Commission Incident Response Program," informs NRC employees of the essential elements of the NRC Incident Response Program used to manage incidents and emergencies involving facilities and materials regulated and licensed by the agency. The draft directive was comprehensive and well constructed. However, OIG suggested addition of language to convey appropriate references to the IG and guidance that OIG, upon request, could provide computer forensic or Law Enforcement Officer assistance.

MD and Handbook 8.4, "Management of Plant-Specific Backfitting and Information Collection," reflected the agency restructuring that resulted in the addition of two new program offices, the Office of New Reactors and the Office of Federal and State Materials and Environmental Management Programs (FSME), as well as designation of generic and plant specific contact points. OIG commented on several

matters related to appropriate referencing of FSME in the draft to include sections about backfit appeals; coordination with the regional administrators and the Office of Nuclear Security and Incident Response; the development, maintenance, and implementation of procedures; and the role of the FSME Director in final disposition.

Draft MD and Handbook 8.17, "Licensee Complaints Against NRC Employees," contained minor revisions and was intended primarily as a recertification of the directive. OIG reviewed the document and suggested clarifications including the addition of definitions and additional language on procedural rights for the involved employee to include the opportunity to provide relevant information to an agency official before licensee staff are engaged. OIG also suggested inclusion of a legend to identify the acronyms used in the flow chart of the licensee complaint process.

OIG commented on three revised documents covering pay, performance, and employee rights.

Draft MD and Handbook 10.42, "Work Schedules and Premium Pay," incorporated the former MD 10.46, "Credit Hours," and consolidated guidance on work schedules, the newer compressed work schedule, and NRC Employee Work Schedule Flexibilities (NEW Flex) programs, and updated guidance to comply with current law and regulations. OIG comments provided advice to more correctly describe the authority of the IG for OIG employees. In addition, OIG suggested inclusion of more definitions and links to definitions for key terminology and adding language to clarify the issue of holiday and excused absences that fall on regularly scheduled non-workdays. OIG also related that as the "Credit Hour Program" is an important feature of the NEWFlex work schedule, it warranted a separate section in the Handbook that would include a definition of credit hours within the context of the program and clarify that credit hours may not be earned for training. Additional definitions and specificity were needed for the sections on premium pay and hours of duty and overtime, along with a description of how overtime is calculated and details for how employees should document requests related to work schedules.

With regard to draft MD and Handbook 10.67, "General Grade Performance Management System," OIG provided suggestions for clarification, including emphasizing the Chairman's role in providing overall executive leadership to the agency's personnel system. Further, the role of the IG was rewritten to reflect the IG's authority to implement and approve exceptions to the agency's general grade performance management system for OIG employees. OIG comments also suggested that terms of art be spelled out before acronyms were used, that workers excluded from usual employee coverage be individually identified by type, and inclusion of additional clarification of the directive's guidance on appraisals and performance plans.

Draft MD 10.159, "The NRC Differing Professional Opinion (DPO) Program," addressed issues and feedback from the NRC Safety Culture Task Force Report, the OIG Safety Culture and Climate Survey, and the Issues Resolution Task Group. This directive was reviewed and comments were provided reflecting that the draft did not follow the usual MD format overall, and that the internal formatting was confusing.

In addition, OIG noted the need for further detail and definition in references within the directive to "other documents," which were not specified, as well as the need for addition of referenced roles, (e.g., "DPO Panel Members") in the organizational responsibilities section of the directive, and language completely describing OIG's role and function in two sections that referenced OIG. Other OIG observations included the need for plans for resolving conflicts of interest and confidentiality issues, and the need for revision of the directive flowchart to more closely follow the DPO process.

OIG also reviewed the following four MDs pertaining to administrative matters.

OIG suggested improving the clarity of draft MD 3.23, "Mail Management," by further defining the term "premium mail" and adding information related to forms referenced in the directive. OIG also sought clarification to ensure that deletions from prior publications were intentional.

Draft MD and Handbook 4.5, "Contingency Plan for Periods of Lapsed Appropriations," was revised to reflect current agency structure and more recent Governmentwide guidance on shutdown procedures. Comments conveyed the need to specify OIG authority over contract and personnel actions in the event of lapsed appropriations. In addition, OIG provided updated and corrected titles for referenced publications.

OIG comments concerning draft MD 13.4,"Transportation Management," noted an apparent inconsistency between the draft provisions and the agency Collective Bargaining Agreement and the need to include the IG's authority over vehicle use and the IG Act as a reference. Correction and updating of an identified title and reference was also suggested.

Draft MD 14.1, "Official Temporary Duty Travel," was revised and addressed agency changes in office functions and responded to identified questions related to entitlements in official travel. OIG noted the need for a revised section to accurately reflect the IG's authority. In addition, the need for additional clarification and correction of information related to Government travel card use and limitations was provided, as well as clarification on the status of train travel categories. OIG comments also offered updated information to be included regarding the changed process for the Chairman's vouchers.

OTHER ACTIVITIES

Support of the IG Community in Training and Presentations

The Attorney General guidelines for statutory law enforcement authority for 1811 special agents within the IG community include the requirement for periodic training on specified legal issues. The Inspector General Criminal Investigator Academy was tasked with formulating the syllabus for the training and identification of appropriate teaching staff. The NRC OIG General Counsel, Maryann Lawrence Grodin, was part of a group of attorneys from several IG offices who constructed a model 3-hour course and participated in training a cadre of attorney-trainers. During this period, Ms Grodin presented the Civil and Administrative Remedies class as part of this mandatory training program in Dallas, Texas, and in Chicago, Illinois, to more than 50 agents from more than a dozen Federal agencies.

The Council of Counsels to Inspectors General, a group of attorneys who serve as legal advisors in the Federal IG community, sponsors a training program for law students working as summer interns in IG offices in the Washington, DC, area. As part of the introductory session for this year's program, the NRC OIG General Counsel provided a 1-hour presentation on the history and concept of the IG in the Federal Government. In addition to the chronological history, she related the political and philosophical context of IG authority and functions, adding factual illustrations and anecdotes from practice in the community.

Ms. Grodin and Nancy Eyl, Assistant Counsel, Department of Homeland Security OIG, spoke at the 18th Annual National Government Ethics Conference in September 2011. Their presentation, "Inspector General and Ethics Counsel: Changing Environments and Challenges–the Sequel," provided an update to substantive legal authorities, practical suggestions for support of agency ethics programs and IG functions, along with exercise questions and a best practices dialogue. The presentation related both statutory and regulatory authority and standards applicable to each role, and illustrated each discussion area with examples from practice and evolving case law.

Publication

Ms. Grodin, Ms. Eyl, and Alexandra Keith, Senior Attorney in the Office of General Counsel of the Special Inspector General for Iraq Reconstruction, published an article in *The Federal Ethics Report,* "Growing Old Together: Inspector General and Ethics Counsel–Changing Environments and Challenges." This article provides a comprehensive description of statutory and regulatory rules that define the roles of Federal Government attorneys serving as ethics and IG counsel, along with the history of these positions, and discusses their relationships and best practices.

Management and Performance Challenges

Most Serious Management and Performance Challenges Facing the Nuclear Regulatory Commission* as of October 1, 2010 (as identified by the Inspector General)	
Challenge 1	Protection of nuclear material used for civilian purposes.
Challenge 2	Managing information to balance security with openness and accountability.
Challenge 3	Ability to modify regulatory processes to meet a changing environment, to include the licensing of new nuclear facilities.
Challenge 4	Oversight of radiological waste.
Challenge 5	Implementation of information technology and information security measures.
Challenge 6	Administration of all aspects of financial management and procurement.
Challenge 7	Managing human capital.

**The most serious management and performance challenges are not ranked in any order of importance.*

The seven challenges are distinct, yet interdependent relative to the accomplishment of NRC's mission. For example, the challenge of managing human capital affects all other management and performance challenges.

Audits

To help the agency improve its effectiveness and efficiency during this period, OIG completed 11 performance audits or evaluations, which are summarized here, that resulted in numerous recommendations to NRC management. OIG also analyzed 11 contract audit reports.

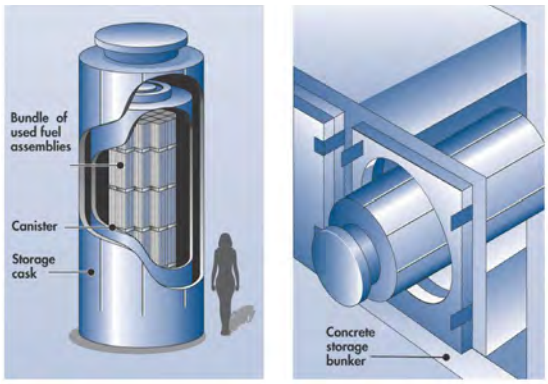
AUDIT SUMMARIES

Two Audits of NRC's Oversight of Independent Spent Fuel Storage Installations (ISFSIs): Safety and Security

OIG Strategic Goals: Safety and Security

With the anticipated growth of nuclear power in the United States and the uncertainty over the permanent storage of spent fuel at Yucca Mountain, nuclear power plants have a growing need for additional spent fuel storage capacity to support continued operation. ISFSIs are NRC-licensed facilities that store dry casks containing used nuclear reactor fuel, otherwise known as spent fuel. Most ISFSIs are located at operating reactor sites. An ISFSI typically consists of a concrete storage pad, storage containers (casks), and any support facilities.

Dry Storage of Spent Fuel



Dry cask storage. Source: NRC

The first dry storage ISFSI was licensed by NRC in 1986. As of April 2011, there were ISFSIs storing spent nuclear fuel or preparing to store spent nuclear fuel in the near term at 57 different locations across the United States. Of these ISFSI sites, 47 were located at operating reactors and the remaining 10 were located away from an operating reactor.

NRC's safety oversight program for spent fuel storage is designed to prevent radiation-related deaths and illnesses, and protect the environment. The oversight program includes inspections and assessments of licensee and vendor activities with a focus on minimizing risk to public health and safety. NRC periodically inspects the design, fabrication, and use of dry cask storage systems by sending inspectors to licensee and cask vendor facilities. Inspectors follow agency guidance that contains objectives and procedures to use for each type of inspection. Upon completion of these inspections, NRC issues reports to document the inspection findings.

With regard to security oversight, following the terrorist attacks of September 11, 2001, NRC conducted a comprehensive review of its security policies and procedures, including those related to spent fuel storage. NRC recognized the need to reexamine basic assumptions underlying the civilian nuclear facility security and safeguards programs and embarked upon a comprehensive review of these programs. NRC issued advisories and orders to licensees possessing spent nuclear fuel that identified additional security measures and directed licensees to reevaluate the adequacy of their security programs, plans, and procedures.

OIG conducted two audits related to ISFSI safety and security, respectively:

The ISFSI safety audit objective was to determine if NRC has the requisite processes in place for reviewing ISFSI safety.

The ISFSI security audit objective was to determine the adequacy of NRC's oversight of ISFSI security.

ISFSI Safety Audit Results:

The nuclear industry is expecting that by 2025 all commercial nuclear power plants in the United States will have operational ISFSIs at their sites. Currently, there are 104 operating nuclear reactors in the United States. This unprecedented growth in operational ISFSIs, coupled with an uncertainty surrounding the fate of a national high-level waste repository, brings NRC's oversight of ISFSI safety to the forefront. NRC's oversight program for ISFSI safety is designed to prevent radiation-related deaths and illnesses and protect the environment. Although there have been no significant issues at ISFSIs, OIG identified opportunities for improvement within the ISFSI safety inspection program pertaining to ISFSI safety inspector training and frequency of routine ISFSI safety inspections.

- Opportunities Exist To Improve ISFSI Safety Inspector Training. NRC conducts ISFSI safety inspections with regional, resident, and headquarters-based inspectors. The training requirements for these inspectors vary. Although it is NRC's policy to assign only trained and qualified individuals with the knowledge and aptitude to perform onsite inspection activities consistent with agency expectations, there is no formalized agencywide training program for ISFSI safety inspectors. When ISFSI safety inspectors do not have a consistent understanding of agency inspection requirements, oversight can be compromised. Specifically, there is an increased potential for inadequate inspections to occur, which could result in an increased risk to public health and safety.

- Routine ISFSI Inspection Frequency Varies Among Regions. The period between routine ISFSI inspections varies among regions from 1 to almost 6 years. Although NRC expects a level of consistency in the performance of ISFSI inspections, inspection frequencies vary because the frequency required to conduct routine ISFSI inspections is not clearly defined. Routine ISFSI safety inspections could be delayed indefinitely without clearly defined inspection frequency guidance, potentially increasing the risk to public health and safety.

ISFSI Security Audit Results:

While NRC has taken steps to improve its oversight of ISFSI security, and the agency has not experienced any problems with ISFSI security, OIG identified the following opportunities to enhance management of the ISFSI security oversight program:

- Define key ISFSI security office roles and responsibilities. Three headquarters program offices, along with the four regional offices, have played important roles in providing oversight of ISFSI security. Although staff involved with ISFSI security oversight understand their roles, there is no process document that outlines the roles and responsibilities of all offices involved. Without this global perspective, there are no assurances that lapses do not occur with the shared responsibilities.

- Update the ISFSI security inspection procedure. There is no inspection procedure related to current ISFSI security requirements. Currently, inspectors use a temporary procedure to evaluate licensee compliance with the 2002 security orders. This instruction requires inspectors to conduct only an initial security inspection on all ISFSI licensees, but does not mandate any additional inspections or reviews to ensure compliance. Also, it provides only basic information on how to conduct the inspection and does not clearly define what licensee measures would satisfy the security requirements. The Office of Nuclear Security and Incident Response (NSIR) has been working to provide more extensive, formal guidance for ensuring licensee compliance with ISFSI security orders, including an updated inspection procedure that establishes a regular inspection frequency.

- Train inspectors assigned to assess ISFSI security. There is no established qualification program to train and qualify individuals as "ISFSI security" inspectors. While individuals selected to conduct ISFSI security inspections have been qualified as inspectors under at least one of NRC's two inspector qualification programs, neither program focuses specifically on ISFSI security.

- Develop a centralized database of ISFSI security-related information. Currently, ISFSI security-related information is located in multiple database systems and not quickly and easily available to inspectors to research prior to conducting security inspections. NSIR has initiated an effort to organize this information in a SharePoint site, which is an online centralized database for document sharing; however, success of the database depends on the input and participation of staff involved with the program.

OIG acknowledges the agency's post-September 11, 2001, categorization of ISFSIs as a relatively low security risk and its decision to place security resources on higher risk programs; however, making certain basic improvements in program management will facilitate the continued success of ISFSI security and prevent lapses that could occur in the absence of such improvements.

(The two audits address Management and Performance Challenges #1 and #4)

Audit of NRC's Shuttle Service

OIG Strategic Goal: Corporate Management

On March 21, 2007, NRC initiated a shuttle service between its main headquarters complex (White Flint) in Rockville, Maryland, and a nearby interim facility opened to provide temporary workspace during the construction of a new office building at White Flint. The shuttle service was eventually expanded to include routes to three additional interim facilities located within several miles of White Flint. The shuttle service was initiated to eliminate the need for staff to use their own vehicles and incur expenses to travel between interim facilities and White Flint for meetings, training, and other official activities. NRC intends to maintain the shuttle service until construction of the new office building is completed and employees located in the interim facilities are moved back to White Flint. Consolidation is planned to occur during calendar year 2012.

NRC Shuttle Bus. Source: OIG

The current shuttle contract, in the amount of $1.1 million, started on December 1, 2009, and covered a 1-year period. The contract contains two option periods. The first option period, in the amount of $1.1 million, was exercised for another year. The second option period, in the amount of $552,000, covers the period from December 1, 2011, through May 31, 2012.

OIG conducted an audit of the NRC shuttle service based on a request made by the Office of the Executive Director for Operations. The audit objective was to determine the effectiveness, efficiency, and economy of the shuttle service versus public transportation.

Audit Results:

OIG determined that NRC staff are satisfied with the shuttle service, and buses generally operate in an efficient and effective manner as required by the contract. Moreover, the shuttle service has proven to be a more convenient option for the agency than using public transportation. However, this report includes five observations that could enhance shuttle safety and security and improve administration of the service contract.

(Addresses Management and Performance Challenge #6)

Audit of NRC's Purchase Card Program

OIG Strategic Goal: Corporate Management

The Governmentwide Purchase Card Program was established in the late 1980s as a way for agencies to streamline the Federal acquisition processes by providing a low-cost, efficient vehicle for obtaining goods and services directly from vendors. Purchase cards can be used for micro-purchases,[2] as well as to place orders and make payments on contract activities.

The General Services Administration (GSA) administers the Governmentwide Purchase Card Program. GSA contracts with several banks, including Citibank—the bank used by NRC—to provide purchase cards to Federal employees. NRC's Office of Administration (ADM) is responsible for oversight of NRC's Purchase Card Program. ADM has a designated Agency Purchase Card Program Coordinator (Coordinator) who is responsible for day-to-day program management. The Coordinator provides oversight of the Purchase Card Program and serves as the liaison between cardholders and the contracting bank.

In February 2011, NRC issued a revised Purchase Card Handbook (the Handbook)—originally issued in July 1994—as the agency guidance for employees participating in the Governmentwide Purchase Card Program.

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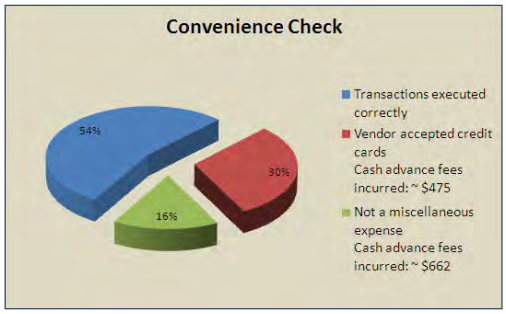
[2] *A micro-purchase is an acquisition of supplies or services not subject to the Service Contract Act in which the aggregate amount does not exceed $3,000. For services subject to the Service Contract Act the amount cannot exceed $2,500. For construction projects subject to the Davis-Bacon Act the limit is $2,000.*

From December 1, 2008, through March 31, 2010, NRC had about 160 purchase cardholders who incurred transactions totaling approximately $8.3 million.[3]

The audit objective was to determine whether NRC has established and implemented an effective system of internal control over the use of Federal purchase cards.



OIG Review of Convenience Check Transactions, December 1, 2008, Through March 31, 2010 (n=126).

Source: OIG Analysis

Audit Results:

Overall, NRC has established a Purchase Card Program that streamlines Federal acquisition processes by providing an efficient vehicle for obtaining goods and services directly from vendors. However, OIG identified opportunities for improvement. Specifically:

- Employees are not consistently following agency Purchase Card Program guidance. The Handbook describes specific requirements for closing purchase card accounts, tagging accountable property, and requesting spending limit increases; however, employees do not consistently follow these procedures. For example, cardholders do not always notify the Coordinator when they separate from NRC, thereby leaving inactive accounts open for an extended amount of time. As another example, NRC conducted a physical inventory of its property and determined that 416 of 6,839 property items reviewed were not tagged. An agency official who conducted the inventory attributed these untagged items to purchases made by purchase cardholders without informing their respective property custodian.

- Employees appear to be making split transactions[4] and using convenience checks improperly. Federal and agency guidance prohibit cardholders from making split transactions using purchase cards and authorize the use of convenience checks only under specific conditions. However, OIG's review of 180 purchase card transactions made by 19 cardholders from 14 different offices identified 25 transactions from 8 different offices that appeared to be split transactions. OIG also examined 126 convenience check transactions and identified 58 that fell outside of Federal and agency guidance.

- The agency's cardholder records are incomplete. NRC does not maintain complete records of NRC purchase cardholders and their delegations of authority. OIG compared the list of cardholders maintained by NRC Purchase Card Program management with a list generated from Citibank records and cardholder delegations of authority. OIG identified 20 of 160 cardholders for which cardholder information was missing from the information reviewed. Moreover, agency program management was unable to provide the delegations of authority for the designated convenience check writers.

Addressing these concerns will strengthen NRC's internal control over Federal purchase cards and reduce the potential for unnecessary expense to the agency and instances of fraud, waste, and abuse.

(Addresses Management and Performance Challenge #6)

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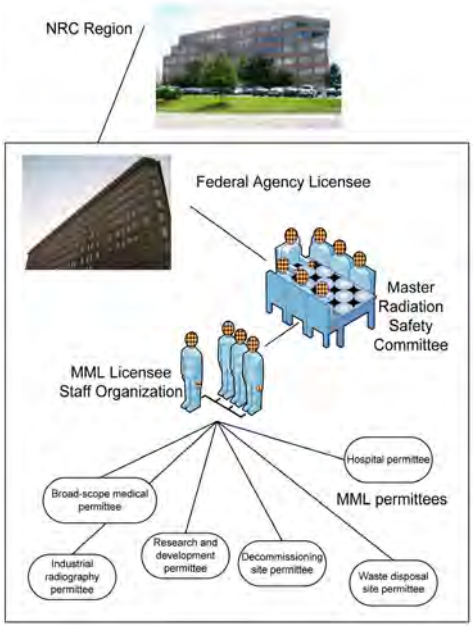
[3] *As of December 15, 2010, NRC had approximately 131 cardholders.*

[4] *A split transaction occurs when purchases are made on the same day from the same vendor to circumvent cardholder single transaction limits.*

Audit of NRC's Oversight of Master Materials Licensees

OIG Strategic Goal: Safety



Generic NRC Oversight of MML Licensees.
Source: OIG Analysis

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 regulates medical, industrial, and academic uses of nuclear materials through a combination of regulatory requirements, including licensing, inspection, and enforcement. NRC also issues Master Materials Licenses (MML) to Federal agencies.

An MML is a materials license issued to a Federal agency authorizing use of material at multiple sites that fall under the jurisdiction of the Federal agency. The MML allows the Federal agency to conduct some activities as a regulator, such as issuing permits for radioactive materials use at the sites that use materials (referred to as permittees), conducting inspections, handling allegations, following up on incidents and events, and taking enforcement actions. NRC, in turn, provides oversight of MML licensees and permittees through various means.

MMLs incorporate by reference a Letter of Understanding that defines the licensee's responsibilities for the radiation control program and NRC's role supporting the MML licensee. The MMLs also incorporate by reference "tie downs," which are documents such as MML licensee procedures for permitting and inspections that become license conditions and are considered part of the license.

As of April 2011, NRC had issued MMLs to three Federal agencies: the Department of the Air Force, the Department of the Navy, and the Department of Veterans Affairs. For each MML, the responsible Federal agency has established a master radiation safety committee and an MML licensee staff organization that reports to the committee. The licensee staff organizations conduct the day-to-day management of the MML licensee's program. The three MML licensee organizations vary based on the numbers and types of permits.

Each MML licensee has a corresponding project manager in an NRC region assigned to monitor the MML licensee's activities. NRC oversight of MML licensees is coordinated by the project managers and is conducted through biennial reviews of the MML licensee program, independent inspections of the MML permittees, accompaniments of MML licensee inspections of the permittees, enforcement, and allegations followup.

The audit objective was to determine whether NRC's oversight of MML licensees adequately protects public health and safety and the environment.

Audit Results:

Over the past decade, NRC has made some improvements to its oversight of MML licensees to facilitate adequate protection of public health and safety and the environment; however, opportunities exist for NRC to further strengthen its oversight of this unique type of materials licensee. NRC has developed guidance to oversee MML licensees, and the agency has taken steps to improve its implementation of its guidance.

NRC management could strengthen MML licensee oversight by improving the guidance for NRC staff providing technical assistance and training to MML licensees; improving the guidance for the selection of MML permittees for NRC independent inspection; and clarifying MML licensee regulatory oversight roles, responsibilities, and accountabilities.

- NRC Could Improve Guidance for NRC Staff Providing Technical Assistance and Training to MML Licensees. MML licensees have difficulty obtaining support they need to successfully implement their programs. The Letters of Undestanding state that NRC will provide guidance and assistance in areas pertinent to the administration of the MML license, including technical assistance and training where NRC has special capabilities. NRC management has not provided adequate guidance or a consistent process for supporting MML licensee staff. For example, MML licensees often do not receive timely or clear responses to their requests for technical assistance. Additionally, MML licensees have difficulty getting into NRC-sponsored training courses. Without this support, MML licensee staff may lack the knowledge and skills necessary to effectively implement their oversight programs and, consequently, they might not adequately protect public health and safety and the environment.

- Guidance on Selection of MML Permittees for Inspection Could Be Improved. NRC selection of MML permittees for independent inspection varies. NRC monitors MML licensees' performance primarily through independent inspections of MML permittees, and NRC principles regarding regulatory transparency and predictability should guide these monitoring actions. However, selection of MML permittees is shaped by wide-ranging interpretations of the guidance for MML licensee oversight, which directs NRC staff to select a "sufficient number" and to choose a "representative sample" of MML permittees to adequately monitor MML licensee and permittee performance. Regional variation in selecting MML permittees for inspection is a result of unclear and vague guidance. Without a clear definition of inspection parameters, MML permittee inspections are at risk of becoming a lower priority than deadline-driven activities, which could impair the effectiveness of monitoring MML licensee and permittee performance.

- NRC Should Clarify MML Licensee Regulatory Oversight Roles, Responsibilities, and Accountabilities. NRC's regulatory oversight expectations for MML licensees are not enforced. To ensure adequate protection of public health and safety and the environment, NRC expects MML licensees to perform regulatory oversight functions. However, these expectations are not clearly defined or explicitly enumerated in NRC regulations, the MMLs, the Letters of Understanding, or licensee "tie downs." As a result, MML licensees and NRC may have different understandings of MML licensee

staff and the master radiation safety committee accountabilities and regulatory oversight roles and responsibilities. Consequently, MML licensees may not fully perform these regulatory oversight functions in a manner NRC expects, which could result in inadequate protection of public health, safety, and the environment.

(Addresses Management and Performance Challenge #1)

Audit of NRC's Shared "S" Drive

OIG Strategic Goal: Corporate Management

The President of the United States has directed Federal agencies to promote information sharing with the public and improve the transparency of Government operations.[5] Nevertheless, applicable laws and Governmentwide policies require NRC and other Federal agencies to protect some types of information against accidental or intentional disclosure.

NRC staff process on agency networks a category of sensitive unclassified information unique to NRC called Sensitive Unclassified Non-Safeguards[6] Information (SUNSI).[7] NRC defines SUNSI as:

> …any information of which the loss, misuse, modification, or unauthorized access can reasonably be foreseen to harm the public interest, the commercial or financial interests of the entity or individual to whom the information pertains, the conduct of NRC and Federal programs, or the personal privacy of individuals.

NRC staff can process electronic documents containing SUNSI in a variety of ways. For instance, some documents may be saved in the non-public version of NRC's online data system—the Agencywide Documents Access and Management System (ADAMS).[8] Staff may also exchange documents on internal SharePoint[9] Web sites, which staff can configure to limit access rights to specific employees or groups of employees. Additionally, NRC staff can save documents on shared network drives.[10] These shared drives include "G" drives accessible by staff within NRC program offices; an "R" drive, an agencywide drive with read-only access; and an "S" drive, which allows all staff, whose user accounts are on the same file server, to add, read, edit, and delete documents unless documents are stored in folders configured to limit access to specific employees or groups of employees.

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[5] *Office of Management and Budget Memorandum M-10-06; Subject: Open Government Directive; December 8, 2009.*

[6] *Safeguards information is information relating to certain material control and accounting procedures for special nuclear material or security measures for the physical protection of special nuclear material, source material, or byproduct material.*

[7] *NRC includes Personally Identifiable Information (PII) as a category of SUNSI. PII includes information that can be used to distinguish or trace an individual's identity, such as one's date of birth, Social Security Number, or home contact information.*

[8] *ADAMS is NRC's official repository for documents pertaining to the agency's regulatory activities.*

Regardless of how NRC employees exchange SUNSI on agency networks, Federal law requires that NRC maintain adequate controls over the confidentiality, integrity, and availability of this information.[11]

The audit objective was to assess whether NRC effectively protects electronic documents containing PII and other types of SUNSI on NRC's shared network drives.

Audit Results:

NRC has policies for protecting electronic documents containing SUNSI that are processed on agency shared network drives. NRC guidance requires that access to documents containing SUNSI be controlled on a need-to-know basis. NRC has procedures to control documents containing SUNSI that are stored on its computer network. Nevertheless, auditors found documents containing every category of SUNSI on shared network drives without appropriate protections.

Examples of PII found include the personal information of past and current NRC Commissioners, including home addresses, home telephone numbers, passport information, and credit card information. The other SUNSI categories for which auditors found information were (1) allegation information; (2) security-related information; (3) sensitive internal information; (4) investigation information; (5) Federal-, State-, foreign government, and international agency controlled information; and (6) proprietary information.

SUNSI appeared on NRC's shared network drives occurred for three main reasons:

- NRC has not provided adequate training to NRC staff on specific practices for protecting documents containing SUNSI that are processed on shared network drives.
- NRC has not adequately communicated to its staff specific guidance for protecting documents containing SUNSI that are processed on shared network drives.
- Varying skill levels and the limited scope of office information technology coordinators' duties constrain their ability to educate staff about policies for handling SUNSI and ensure staff compliance.

Additionally, during the course of the audit, access control profiles for allegations folders on a regional office shared network drive changed temporarily to a general default setting. This error occurred during a network upgrade and temporarily made the allegations folders accessible to any employees with regional office network access, regardless of their need to know this information. NRC staff who use the files reported the error,

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[9] *SharePoint is a software program that allows staff to set up Web sites to share information with others and allows staff to manage documents. SharePoint can be used to manage databases, reports, and business applications.*

[10] *Documents containing classified or Safeguards information may not be processed on NRC's unclassified networks or placed in ADAMS.*

[11] *Federal Information Security Management Act of 2002, 44 U.S.C § 3542.*

and corrective action was taken. Although this was an isolated incident, NRC staff acknowledged a need for quality assurance checks after contractors perform network upgrades to ensure access controls are maintained.

Despite instances of problems with controls over SUNSI stored on NRC shared network drives, auditors found no evidence suggesting that this information had been compromised. Nevertheless, without proper training, policy communication, information technology coordinator support, and quality assurance controls, SUNSI on the shared network drives may be at greater risk of unintentional or intentional disclosure, modification, and/or deletion.

(Addresses Management and Performance Challenge #5)

Audit of NRC's iLearn Learning Management System

OIG Strategic Goal: Corporate Management

The NRC implemented the iLearn Learning Management System (iLearn) in April 2008 in response to the E-Government Act of 2002.[12] iLearn is a vehicle for providing training distribution and tracking services directly to employees. It serves as a central point for training activities across the agency and allows employees to see all NRC-offered courses, develop a learning plan, register for training, track training history, access online training, and complete evaluations from their desktop.

NRC procured the system through a Government shared-service provider on a pay-as-you-go basis, using an interagency agreement with the Office of Personnel Management (OPM). The system, a commercial-off-the-shelf product, is hosted by Plateau Systems. As of June 2011, the agency had spent approximately $1.5 million on iLearn and plans to spend almost $500,000 next year.

iLearn is intended to be inclusive of all courses offered at NRC. Currently, the system houses 599 online courses; 492 are SkillSoft courses, 42 are Harvard Business courses, and 65 are NRC-developed courses.

The audit objective was to determine the effectiveness of the iLearn Learning Management System to support the agency's current and future training needs.

[12] *E-Government Act of 2002 (Public Law 107-347), approved by the President on December 17, 2002.*

Audit Results:

While iLearn is capable of effectively supporting NRC's current and future training needs, OIG identified the following issues related to iLearn management:

Summary of iLearn O&M Expenses (figures have been rounded)

Type of Expense	2008-2009 (Base)	2009-2010 (Option Year 2)	2010-2011 (Option Year 3)	2011-2012 (pending)
Licenses	$219,000	$ 190,000	$ 201,000	$228,000
Initial Implementation	$282,600			
System Upgrade Services		$ 134,000		$ 88,000
Contractor System Support Analyst	$171,600	$ 180,000	$ 180,000	$180,000
Total Non-FTE Operating Expenses	$ 673,200	$ 504,000	$ 381,000	$ 496,000

Source: HRTD – Note that contract years start on June 15 and end on June 14 of the following year.

- Mandatory fields are not always complete. Agency guidance requires use of mandatory fields in iLearn to capture course prerequisites[13] and general information such as course description, course length, and point-of-contact. However, these fields are often left blank because management (1) does not enforce use of the prerequisite feature and (2) lacks a quality assurance program to ensure that mandatory fields are used. Without course prerequisite information in iLearn, students are able to register for courses for which they are not eligible or prepared, thereby using a training slot that could be used by another student who may need the course for timely completion of his or her qualification curriculum. Furthermore, incomplete iLearn data makes it difficult for users to plan their training effectively and could affect the accuracy of NRC's biweekly reports to the Office of Personnel Management containing training information such as training credits, hours, and purpose for each course completed by employees.

- NRC lacks written policies and procedures describing course manager duties. Federal guidance directs that agencies have policies and procedures in place to help ensure that agency objectives are met. However, NRC lacks written policies and procedures describing the responsibilities of individuals assigned to serve as course managers for iLearn courses. Accordingly, course managers are not consistently fulfilling their duties. Without established policies and procedures to clearly communicate management expectations, course managers may be unaware of their duties or may use inconsistent and less than optimal methods to fulfill their duties.

Addressing these issues will improve the effectiveness of iLearn in meeting the agency's training needs.

(Addresses Management and Performance Challenge #7)

[13] *In this context, prerequisites are defined as courses that are required to be completed before another course can be taken.*

Audit of NRC's Management of Licensee Commitments

OIG Strategic Goal: Safety

NRC regulates commercial nuclear power plants that generate electricity through a combination of regulatory requirements and licensing, inspection, and enforcement activities. One way NRC provides oversight of licensees is through the management of regulatory commitments (commitments). Commitments are docketed, written statements describing a specific action that the licensee has agreed or volunteered to take. They often result from a licensing action such as a license amendment, including power uprates, or from a generic communication, such as generic letters and bulletins. Commitments are neither legally binding nor obligations of a license; however, a commitment may be escalated into a legally binding obligation only if NRC staff deems that the commitment is essential for ensuring public health and safety.

Licensees are responsible for creating, tracking, and handling all commitments made to NRC. The licensee is entirely responsible for tracking the commitments, and this includes any changes to the commitments and notification to NRC about such changes. NRC expects licensees to honor commitments in good faith.

The audit objective was to assess the extent to which NRC appropriately and consistently utilizes and manages regulatory commitments for power reactor licensees.

Audit Results:

Part of NRC's mission is to identify and accomplish those actions that provide the level of nuclear plant performance necessary to ensure adequate protection of public health and safety. A commitment is one tool that NRC uses in the overall licensing process to add flexibility, improve efficiency, and maintain the flow of information between the staff and licensees. OIG identified opportunities for improvement in the following three areas:

- Consistent implementation of commitment management audits. NRC inconsistently implements the audits of licensee commitment management programs. For example, NRC project managers responsible for conducting triennial audits of licensee commitment management programs inconsistently identify the universe of commitments eligible for sampling during the audits, have varying views on what constitutes a thorough audit, and conduct the audits differently. This is because agency guidance concerning its performance of required triennial audits is incomplete and imprecise. Incomplete and imprecise guidance concerning the conduct of commitment management audits can result in ineffective audits, inefficient use of resources, and the appearance that NRC provides disparate oversight of similarly situated licensees.

- Staff understanding of the definition and use of commitments. The definition and use of commitments is not consistently understood throughout the agency. While some staff believe commitments are not enforceable, others said that NRC could enforce commitments. Staff also provided conflicting descriptions for the use of commitments, for example, whether a regulatory decision (e.g., amendment to a

licensing document) can be based on a commitment. In addition, some staff were aware of a regulatory practice that incorporates the content of a commitment into a licensing action implementation statement, while others were unaware of this option. Inconsistent understanding about commitments occurs because NRC training on commitments is insufficient. Specifically, training does not effectively address the definition and use of commitments and is not provided to all agency staff involved in reviewing licensee commitments. This could potentially result in the misapplication of commitments by NRC staff.

- NRC tracking of commitments. NRC does not systematically track commitments because the agency does not have an adequate tool for tracking them, in part, because the agency has not identified a need for such a tool. More than half of the staff interviewed by auditors indicated it would be beneficial to have a commitment tracking tool. Without it, NRC cannot completely ensure oversight of commitments, which has implications for the agency's continuing awareness of significant commitments, the effectiveness of the triennial commitment management audits, and institutional knowledge management.

(Addresses Management and Performance Challenge #3)

Audit of NRC's SAPHIRE 8 System

OIG Strategic Goal: Corporate Management

One of NRC's key responsibilities is to help ensure that the operation of nuclear power plants and other NRC-licensed facilities presents no undue risk to public health and safety. The agency does this by applying and enforcing a set of technical requirements on plant design and operations. Since the 1970s, NRC has used probabilistic risk assessment (PRA) as a tool for assessing, in a realistic manner, the strengths and weaknesses of nuclear plant design and operation. PRA is a technical analysis that systematically answers three questions: (1) What can go wrong? (2) How likely is it to happen? and (3) What are the consequences?

NRC developed the Systems Analysis Programs for Hands-on Integrated Reliability Evaluations, or SAPHIRE, to aid in conducting these PRA evaluations. SAPHIRE is a software tool that performs the highly complex mathematics behind PRA. To use SAPHIRE, a user must first download a copy of the software to his or her personal computer.[14] The user must then input a detailed description of the systems, structures, and components (i.e., the model) to be analyzed in SAPHIRE. At NRC, these models, called Standardized Plant Analysis Risk (SPAR) models,[15] represent the as-built, as-operated nuclear plant. Once the SPAR model has been input, users can then enter

[14] *Once the SAPHIRE software is downloaded to a user's personal computer, this software will reside on the user's machine permanently, unless deleted by the user.*

[15] *SPAR models are plant-specific PRA models that illustrate accident sequence progression, plant systems and components, and plant operator actions. The standardized models represent the as-built, as-operated plant. NRC staff use these SPAR models to independently assess the risk of events or degraded conditions at operating nuclear power plants.*

different combinations of human and/or equipment failures and the nuclear plant's operating status (e.g., full power, low power, and shut down) to quantify the likelihood of an undesired end state, such as core damage. This allows NRC to model a nuclear power plant's response to accidents or potential events.

In addition to the downloadable SAPHIRE software tool, there is a secure SAPHIRE Web site. Access to the secure SAPHIRE Web site is restricted to approved users who are given unique personal identifications and passwords. Once users log into the Web site, they can access and download the most current version of the SAPHIRE software.[16] The most current version, SAPHIRE 8, was released in April 2010.

The audit objective was to determine if the system meets its required operational capabilities and applicable security controls.

Audit Results:

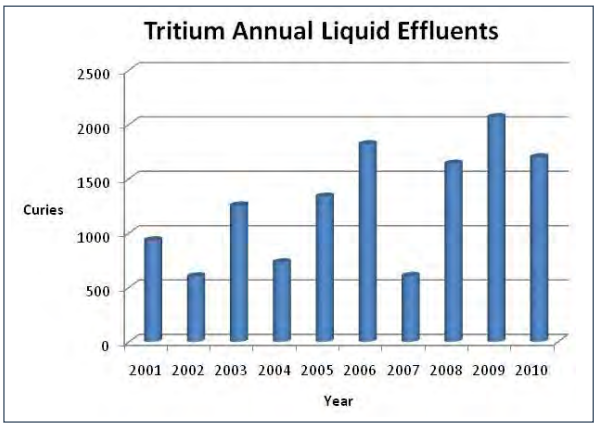
NRC lacks formal policies or procedures for granting and managing access to the SAPHIRE software. This occurs because agency managers have not prioritized the need for a formalized approach to managing access to SAPHIRE 8 and its Web site. Because the agency lacks a formal approach to updating SAPHIRE Web site access lists, more than half of the approved users have not accessed the Web site since July 2010. Many said while they once had a need for SAPHIRE, this is no longer the case.

Without knowing the true universe of users, it is difficult for NRC to manage access to the program consistent with Federal guidance on access controls. Although OIG did not discover any instances of inappropriate access being granted to the software tool, many users have maintained Web site access after it was no longer needed. Documented policies and procedures for managing user access could significantly increase the security controls over the system. Furthermore, formal written documentation on granting and managing access to SAPHIRE 8 would assist any new staff who become involved with SAPHIRE management.

(Addresses Management and Performance Challenge #5)

[16] *Personal identifications and passwords are required only to access the SAPHIRE Web site. Once users have downloaded the SAPHIRE tool to their personal computers, the software can be used without a password. This also applies to SPAR models for NRC users.*

Evaluation of NRC's Oversight of Tritium Production at Commercial Nuclear Power Plants



Source: OIG Analysis

OIG Strategic Goal: Safety

NRC is responsible for ensuring that nuclear power plant licensees operate nuclear power plants in a manner that protects public health and safety and the environment. Tritium is a radioactive isotope of hydrogen used in U.S. nuclear weapons. In 1999, Federal law authorized tritium production at two commercial nuclear power plants owned by the Tennessee Valley Authority (TVA).

The Department of Energy (DOE) works with the Department of Defense to maintain the quantity and quality of the U.S. nuclear weapons stockpile. Tritium production at commercial nuclear power plants involves the redesign of an important reactor core component as well as coordination between NRC and DOE. To produce tritium, the normal absorbing material in the reactor core, boron, is replaced by an isotope of lithium, requiring a redesign of the absorber rods. That isotope of lithium is an absorber like boron, but the nuclear reaction it undergoes during the absorption process also produces tritium. Such rods are called tritium producing burnable absorber rods (TPBAR).

On May 22, 1996, the Secretary of Energy and the NRC Chairman signed a memorandum of understanding that established the basis for NRC review and consultation regarding DOE's use of commercial nuclear reactors for producing tritium. NRC reviewed DOE's proposal to test fuel assemblies containing TPBARs in a commercial nuclear reactor and DOE's safety assessments on tritium production. In May 1999, NRC issued its own safety evaluation. Subsequently, NRC also issued license amendments to TVA allowing loading of TPBARs at Watts Bar Nuclear Power Plant Unit 1 and Sequoyah Nuclear Power Plant Units 1 and 2, although tritium production has only occurred at Watts Bar Unit 1.

The evaluation objective was to determine the effectiveness of NRC's oversight of tritium production at commercial nuclear reactors.

Evaluation Results:

NRC's oversight of tritium production at commercial nuclear power plants is generally effective. OIG also concluded that NRC's licensing of tritium production at two nuclear power plants owned by TVA is permitted under Federal law and although tritium effluents have increased from TVA's Watts Bar Unit 1 during tritium production, they are still well below regulatory limits.

However, there are some areas that merit management's consideration. OIG determined that:

- It is unclear to stakeholders whether TVA needs subsequent NRC authorization to produce tritium at Sequoyah Units 1 and 2. NRC management should consider clarifying to stakeholders whether Sequoyah Nuclear Power Plant Units 1 and 2 would need a subsequent license amendment to be authorized to produce tritium.

- NRC's communication with stakeholders regarding tritium production could be improved. A communication plan for Watts Bar Unit 1 and Sequoyah Units 1 and 2 tritium production was issued August 28, 2001, but it has not been updated and is not an active communication plan. Much has changed with respect to DOE's tritium production program since the 1996 memorandum of understanding was approved and the 2001 communication plan was written. NRC management should consider updating and reissuing a communication plan for the tritium production program.

(Addresses Management and Performance Challenge #1)

Audit of NRC's Internal Control Over Headquarters Fitness Center Membership Fees

OIG Strategic Goal: Corporate Management

NRC Headquarters Fitness Center.
Source: OIG

NRC offers a physical fitness program as part of its wellness services program for agency employees. The fitness program was established to provide employees a fitness strategy to enhance job performance, decrease absenteeism, and prepare employees to meet the physical requirements of specified positions. This audit focused on the headquarters onsite fitness center (fitness center), which currently has approximately 700 members.

The agency's fitness center contract is run by a contractor that provides services and personnel necessary to operate the fitness center in the NRC headquarters complex in the Two White Flint North building. The current contract, effective June 1, 2010, contains a base year and four 1-year option periods. The potential contract value, including the base year and four option periods, is approximately $1.7 million.

At the request of the Office of Human Resources, OIG conducted an audit of the effectiveness of NRC's internal control over fitness center membership fees at headquarters. The request was made after NRC staff informed OIG of three self-identified concerns involving fitness center membership feeds and discussed the agency's actions to resolve them.

Audit Results:

OIG determined that effective internal controls are in place over fitness center membership fees. Specifically, the agency recently implemented appropriate actions to resolve self-indentified areas of concern. The agency's actions facilitate the handling of fitness center membership fees in an efficient and effective manner.

While effective internal controls over fitness center membership fees are in place, this report conveys three observations that, if implemented, could further enhance administrative functions concerning the fitness center contract and membership fees.

(Addresses Management and Performance Challenge # 6)

AUDITS IN PROGRESS

Evaluation of NRC's Contract Award Process

OIG Strategic Goal: Corporate Management

It is NRC's policy that the acquisition of supplies and services support the agency's mission; are planned, awarded, and administered efficiently and effectively; and are accomplished in accordance with applicable Federal statutes and procurement regulations. NRC acquisitions must adhere to the Federal Acquisition Regulation (FAR) and the NRC Acquisition Regulation (NRCAR). The Federal acquisition process is intended, among other objectives, to satisfy the customer in terms of cost, quality, and timeliness of the delivered product or service. The vision for the Federal acquisition process is to deliver on a timely basis the best value product or service to the customer, while maintaining the public's trust and fulfilling public policy objectives.

The Division of Contracts obligated approximately $17.2 million in FY 2009 and $18.5 million in FY 2010 for new contract awards.

The evaluation objectives are to obtain an understanding of NRC's contract award process and perform sufficient work to report on the agency's (1) compliance with applicable requirements (e.g., FAR and NRCAR requirements), and (2) identify any opportunities to improve the efficiency and effectiveness of the contract award process to include timeliness and internal controls.

(Addresses Management and Performance Challenge #6)

Audit of NRC's FY 2011 Financial Statements

OIG Strategic Goal: Corporate Management

Under the Chief Financial Officers Act and the Government Management and Reform Act, OIG is required to audit NRC's financial statements. The report on the audit of the agency's financial statements is due on November 15, 2011. In addition, OIG will issue reports on:

- Special Purpose Financial Statements.
- Implementation of the Federal Managers' Financial Integrity Act.
- Condensed Financial Statements.
- Compliance with the Improper Payments Elimination and Recovery Act of 2010.

The audit objectives are to:

- Express opinions on the agency's financial statements and internal controls.

- Review compliance with applicable laws and regulations.
- Review the controls in NRC's computer systems that are significant to the financial statements.
- Assess the agency's compliance with Office of Management and Budget Circular A-123, Revised, *Management's Responsibility for Internal Control.*
- Assess agency compliance with the Improper Payments Elimination and Recovery Act of 2010.

(Addresses Management and Performance Challenge #6)

Audit of NRC's Management of Import/Export Authorizations

OIG Strategic Goal: Security

The Atomic Energy Act of 1954, as amended, assigns to NRC responsibility for licensing imports and/or exports of specified nuclear materials and equipment. 10 CFR Part 110 contains the regulations that prescribe licensing procedures. NRC coordinates with other executive branch agencies, such as the Department of State and the Department of Energy, in reviewing the license applications.

NRC processed approximately 143 import/export licenses during FY 2009, and approximately 104 during FY 2010, as of August 9, 2010.

The audit objectives are to determine whether NRC (1) properly reviews and approves import/export authorizations in a timely manner, (2) effectively coordinates this activity with other Federal agencies, and (3) efficiently and effectively coordinates import/export authorizations internally.

(Addresses Management and Performance Challenge #1)

Audit of NRC's Process for Evaluating the Relevance of Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)

OIG Strategic Goal: Safety

When licensing a plant under Title 10, Code of Federal Regulations (10 CFR), Part 52, NRC is required to verify, within the combined license application, the inspections, tests, analyses, and the acceptance criteria (ITAAC) that, if met, are sufficient to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license, the provisions of the Atomic Energy Act, and the Commission's rules and regulations.

Prior to the implementation of 10 CFR Part 52, the agency identified the ITAACs needed to issue a combined license for new nuclear power facilities. However, given the changes in the nuclear industry since the inception of 10 CFR Part 52, there are concerns that ITAACs may not provide NRC with all of the necessary information needed to make its licensing decisions.

The audit objective is to assess NRC's regulatory approach, through the ITAAC review process, to ensure that new nuclear power plants have been constructed and will be operated in conformity with the license, the provisions of the Atomic Energy Act, and the Commission's rules and regulations.

(Addresses Management and Performance Challenge #3)

Audit of NRC's Use of Confirmatory Action Letters

OIG Strategic Goal: Safety

While conducting the 2011 "Audit of NRC's Management of Licensee Commitments," OIG reviewed the implementation of several types of commitments, including commitments in Confirmatory Action Letters (CAL). A CAL is a letter issued to a licensee or vendor to emphasize and confirm the licensee's or vendor's agreement to take certain actions in response to specific issues. The *NRC Enforcement Manual* specifies that the level of significance of the issues addressed in a CAL should be such that if a licensee did not agree to meet the commitments in the CAL—which does not establish a legally binding agreement—then the staff would likely proceed to issue an Order, which is legally binding.

A CAL would likely be issued to a licensee or vendor from one of the regional offices or from a program office located at NRC headquarters, such as the Office of Nuclear Reactor Regulation, the Office of Federal and State Materials and Environmental Management Programs, and the Office of Nuclear Material Safety and Safeguards. Accordingly, some of these NRC regional and program offices use office instructions or guidance for considering and issuing a CAL, in addition to the *NRC Enforcement Manual.* There is no known Atomic Energy Act (as amended) clause or Code of Federal Regulations Part/Section that describes or otherwise defines the CAL. That is, the CAL is an extra-regulatory mechanism variably used in licensing and enforcement, depending on the issuing office. Given the possible wide range of purposes to issue a CAL and given the number of different types of offices potentially involved in issuing a CAL, it is important that NRC implements this regulatory tool in a consistent manner.

The audit objective is to determine the effectiveness of NRC's utilization of CALs as a regulatory tool.

(Addresses Management and Performance Challenge #3)

Audit of NRC's Oversight of Decommissioned Uranium Recovery Operations

OIG Strategic Goal: Safety

To provide for the disposal, long-term stabilization, and control of uranium mill tailings[17] in a safe and environmentally sound manner, and to minimize or eliminate radiation health hazards to the public, Congress enacted the Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA). NRC's role under UMTRCA falls into two separate areas. Under Title I, DOE or the pertinent State is responsible for cleanup and remediation, as well as long-term care and maintenance of the sites, under a general license from NRC. NRC is required to evaluate the site design and implementation, and concur that the site meets the standards established by the U.S. Environmental Protection Agency. Under Title II, NRC licenses uranium recovery operations, some of which have substantial quantities of tailings. NRC's Office of Federal and State Materials and Environmental Management Programs provides project management and technical review for decommissioning and reclamation of these Title II facilities.

The audit objective is to determine the effectiveness of NRC regulatory oversight of decommissioned uranium recovery sites and sites undergoing decommissioning.

(Addresses Management and Performance Challenge #4)

Audit of NRC's Oversight of Radiography Sources

OIG Strategic Goal: Safety

Radiography uses radiation to produce images of a subject, especially the internal features of a subject. For example, industrial radiography enables detection of internal physical imperfections such as voids, cracks, and flaws in welds, piping, and other components and structures. It is routinely used for examination of oil and gas pipelines, boilers, and pressure vessels.

Radiographic devices are often portable and subject to theft, loss, and damage. Each year, radiography devices, including their sources, are lost, stolen, or abandoned. The sources in these devices are of great concern because they are made from Cobalt-60, Iridium-192, or other highly radioactive material that can be lethal even in small amounts. For example, one gram of Cobalt-60 will cause a lethal exposure to anyone exposed for 1 hour or more at 1 meter or closer.

The audit objective is to determine the adequacy of NRC's processes for overseeing licensee activities addressing the safety and control of radiography sources.

(Addresses Management and Performance Challenge #1)

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[17] *Uranium mill tailings are the leftover crushed rock after the uranium oxides have been removed from uranium ore.*

Audit of NRC's Security Significance Determination Process

OIG Strategic Goal: Security

Inspectors use the Significance Determination Process (SDP) to evaluate inspection findings for significance and to assign significance characterizations to each of them. The term "SDP" is an overall process description that includes all associated provisions designed to meet Reactor Oversight Program objectives, such as formal opportunities for licensee input, NRC management review for any significance characterization of greater than green, Significance and Enforcement Review Panels, and licensee appeal options. The purpose of the SDP is to provide tools for assessing licensee performance in a manner that is risk-informed, objective, predictable, and understandable.

A technical basis for each SDP is provided in a separate Appendix within Inspection Manual Chapter (IMC) 609, "Significance Determination Process." Appendix E of IMC 609, Parts I and II – "Baseline Security SDP for Power Reactors" and "Force on Force" Security SDP for Power Reactors" provide inspection guidance for evaluating security findings.

The audit objective is to assess NRC's management of the baseline security inspection program, including specific program features such as the SDP.

(Addresses Management and Performance Challenge #1)

Audit of NRC's Protection of Safeguards Information

OIG Strategic Goal: Security

Safeguards information (SGI) is defined as information the disclosure of which could reasonably be expected to have a significant adverse effect on public health and safety and/or the common defense and security by significantly increasing the likelihood of theft, diversion, or sabotage of materials or facilities subject to NRC jurisdiction. Further, SGI identifies the detailed (1) security measures of a licensee or an applicant for the physical protection of special nuclear materials, or (2) security measures for the physical protection and location of certain plant equipment vital to the safety of production or utilization facilities.

NRC established its SGI Security Program to ensure that this information is handled appropriately and protected from unauthorized disclosure. In accordance with the Atomic Energy Act of 1954 as amended, civil and criminal penalties can be levied for the unauthorized disclosure of safeguards information. The requirements of NRC's program are described in Management Directive and Handbook 12.7, "NRC Safeguards Information Security Program."

The audit objective is to assess if NRC adequately ensures the protection of safeguards information. Specifically, OIG will review how NRC (1) defines what constitutes safeguards information, (2) prevents the inappropriate release of safeguards information to individuals who should not have access, and (3) conforms to agency safeguards information policy directions.

(Addresses Management and Performance Challenge #5)

FY 2011 Evaluation of FISMA

OIG Strategic Goal: Security

The Federal Information Security Management Act (FISMA) was enacted on December 17, 2002. FISMA permanently reauthorized the framework laid out in the Government Information Security Reform Act, which expired in November 2002. FISMA outlines the information security management requirements for agencies, including the requirement for an annual review and annual independent assessment by agency Inspectors General. In addition, FISMA includes new provisions such as the development of minimum standards for agency systems, aimed at further strengthening the security of the Federal Government information and information systems. The annual assessments provide agencies with the information needed to determine the effectiveness of overall security programs and to develop strategies and best practices for improving information security.

FISMA provides the framework for securing the Federal government's information technology including both unclassified and national security systems. All agencies must implement the requirements of FISMA and report annually to the Office of Management and Budget and Congress on the effectiveness of their security programs.

The objective is to conduct an independent evaluation of NRC's implementation of FISMA for FY 2011.

(Addresses Management and Performance Challenge #5)

Investigations

During this reporting period, OIG received 96 allegations, initiated 30 investigations, and closed 33 cases. In addition, OIG made 19 referrals to NRC management and 5 to the Department of Justice.

INVESTIGATIVE CASE SUMMARIES

NRC Region II Office of Investigation Handling of Harassment and Intimidation Complaint against Turkey Point Nuclear Power Plant

OIG Strategic Goal: Corporate Management

OIG conducted an investigation based on an allegation from a former NRC licensee employee that the NRC Region II Office of Investigations (OI) did not adequately investigate the former employee's discrimination complaint against the licensee.

OIG's review determined that OI's discrimination investigation contained complete background information regarding the case, including a past allegation raised by the former employee. OI also interviewed the former licensee employee, who clarified and provided additional insights into the allegation. OI interviews with licensee employees, the alleger's co-workers, and management inquired into the basis for the discrimination complaint and detailed the safety concerns raised by the former licensee employee that the former employee claimed were the impetus for this individual's resignation from the licensee. Further, OI's coordination and review of the safety concerns were arranged with NRC staff.

OIG found that OI interviewed relevant personnel and reviewed pertinent documents to conduct a thorough investigation that addressed the alleger's concerns.

(Addresses Management and Performance Challenge #7)

NRC Oversight of Requirements Pertaining to Release of Patients Treated with Medical Radioisotopes

OIG Strategic Goal: Safety

OIG conducted an investigation based on a concern that NRC's regulations concerning patients treated with radioisotopes and the criteria for which these patients are released from medical care could potentially irradiate unknowing members of the public. OIG conducted a limited review of NRC's oversight of licensees that administer Iodine-131 (I-131), a radiopharmaceutical commonly used in therapeutic treatment of hyperthyroidism and thyroid carcinoma.

OIG learned that NRC inspects a licensee's nuclear medicine program in accordance with the NRC inspection procedure and 10 CFR Part 35. NRC inspections of a licensee's nuclear medical program are documented in NRC Safety Inspection Reports and Compliance Inspection Reports. OIG noted that NRC inspects licensees for compliance with the regulation regarding release criteria, patient instructions, and written records and issues violations to licensees who are non-compliant with the regulation.

OIG found that NRC identified a few situations where licensees knowingly released I-131 patients who stayed at a hotel after treatment in accordance with the dose limits of 10 CFR Part 35.75. In addition, NRC staff had anecdotal evidence that releasing I-131 patients to a hotel or another temporary accommodation may not be an uncommon practice; however, 10 CFR Part 35.75 does not limit the location to which the patient may be released and does not specifically address the release of patients to hotels. The regulation is intended to allow physicians (licensees) to assess each situation, thereby providing the best overall treatment for the patient.

During the course of the investigation, NRC issued Regulatory Information Summary RIS-2011-01, "NRC Policy on Release of Iodine-131 Therapy Patients Under 10 CFR 35.75 to Locations Other Than Private Residences," which contained more restrictive guidance concerning the release of radiotherapy patients to other than private residences. The RIS states that "although 10 CFR Part 35.75 does not expressly prohibit the release of a radioactive patient to a location other than a private residence, the NRC strongly discourages this practice because it can result in radiation exposures to members of the public for which the licensee may not be able to fully assess compliance with 10 CFR Part 35.75(a) and may result in doses which are not 'As Low As Reasonably Achievable.'"

OIG did not substantiate that there was a widespread practice among licensees of sending patients to a hotel rather than home after an I-131 treatment. OIG found that NRC inspects and issues violations to licensees that are not compliant with regulations.

(Addresses Management and Performance Challenge #3)

OGC Staff Provided Conflicting Statements on NRC Policy Regarding Release of Treated Patients to Hotels

OIG Strategic Goal: Corporate Management

OIG conducted an investigation based on an allegation submitted by a former NRC employee that the NRC Office of the General Counsel (OGC) issued conflicting statements addressing the recovery of cancer treatment patients in hotels. According to the allegation, OGC concurred with an Office of Federal and State Materials and Environmental Management Programs (FSME) document sent to Region I that stated the release of cancer treatment patients "to a hotel was not prohibited by [NRC] regulations"; however, in November 2008, OGC filed a legal brief with the U.S. Court of Appeals for the Ninth Circuit (Ninth Circuit Court of Appeals) that stated, "NRC's rule [10 CFR Part 35.75] does not permit or encourage doctors to send treated patients to hotels." Also, according to the allegation, NRC, in a written brief to the Ninth Circuit Court of Appeals, misrepresented the former NRC employee's comments for the record pertaining to the former employee's 10 CFR Part 35.75 petition for rulemaking.

OIG found that FSME and OGC statements describing NRC's 10 CFR Part 35.75 patient release criteria give contradictory impressions. One statement, which appeared in a FSME Technical Assistance Request (TAR) response, stated that NRC's *regulations do not prohibit the release of patients to a hotel.* The other statement, which appeared as a subheading in an NRC legal brief to the Ninth Circuit Court of Appeals, stated that NRC's rule does not *permit or encourage doctors to send treated patients to hotels.* OIG found that on face value, neither statement accurately reflects the actual language in the rule, which makes no mention of release destination. However, the TAR response contained sufficient background and explanatory information to connect the statement with the language in the rule and, thereby, prevent potential misunderstanding by a reader. In contrast, the subheading used in OGC's legal brief contained no explanatory material and could be misunderstood as suggesting that the rule prohibits release to a hotel when this is not so.

In January 2011, NRC issued Regulatory Issue Summary RIS-2011-01 to inform licensees of NRC's policy on the release of cancer treatment patients. The language in RIS-2011-01 is similar to the language in the FSME TAR response and states that 10 CFR Part 35.75 does not expressly prohibit the release of a radioactive patient to a location other than a private residence, but notes that NRC strongly discourages this practice.

OIG found that NRC's written legal brief to the Ninth Circuit Court of Appeals accurately characterized the former NRC employee's 10 CFR Part 35.75 petition for rulemaking comments with regard to a correction to the record because it made clear that the former employee recanted the source of the former employee's information about cancer treatment patients going to hotels, but not the former employee's overarching concern that the practice was occurring. OIG also found that the brief was dismissive of the former employee's concern that some cancer treatment patients go to hotels following radiation treatment.

OIG found that while one OGC attorney reviewed both FSME's TAR response and the OGC legal brief prior to their issuance, the attorney did not identify the contradictory language in the two documents and, therefore, missed an opportunity to inform the OGC attorney who wrote the legal brief, and who represented NRC on the matter before the Ninth Circuit Court of Appeals, of (a) the contradictory language and (b) NRC's awareness of specific, non-anecdotal cases of cancer treatment patients going to hotels after their release from a hospital.

OIG also found that the OGC attorney who wrote the legal brief, and who represented NRC in the legal proceeding, was unaware at the time he wrote the brief of the FSME TAR response and its contents.

(Addresses Management and Performance Challenge #7)

License Renewal Process Used by Division of License Renewal

OIG Strategic Goal: Safety

OIG conducted an investigation based on an allegation by a former NRC employee, who alleged that the NRC Division of License Renewal (DLR) project schedule for the Supplemental Environmental Impact Statement (SEIS) is not ideal for the lengthy license renewal review process. The alleger also stated that DLR management pushes staff to complete these reviews, and the process yields inaccuracies. Further, there were concerns with the overall accuracy of the Salem/Hope Creek Supplemental Environmental Impact Statement (SEIS) findings.

The license renewal process generally takes 30-months from the time the application is received to the point at which a decision is made on the renewal. One aspect of the license renewal is the development of the draft SEIS, which is required under the National Environmental Policy Act. NRC contracts with a company with subject matter experts to assist in producing draft SEISs.

OIG found that the project schedule and review process for the SEIS projects are not unreasonable and are typically scheduled for completion in 18 to 22 months but are often pushed back because of different issues that arise during the process. OIG's review of the NRC internal Web site for reactor license renewal applications indicated that between January 2003 and the present, the average time to complete an SEIS was 18 months, but that there have been instances where final SEISs have been issued up to 32 months after receipt of the licensee's license renewal application. OIG found that the Environmental Protection Agency reviewed the draft SEIS for the Salem/Hope Creek facility and determined it to be an excellent report.

OIG did not identify any evidence indicating the license renewal process was flawed.

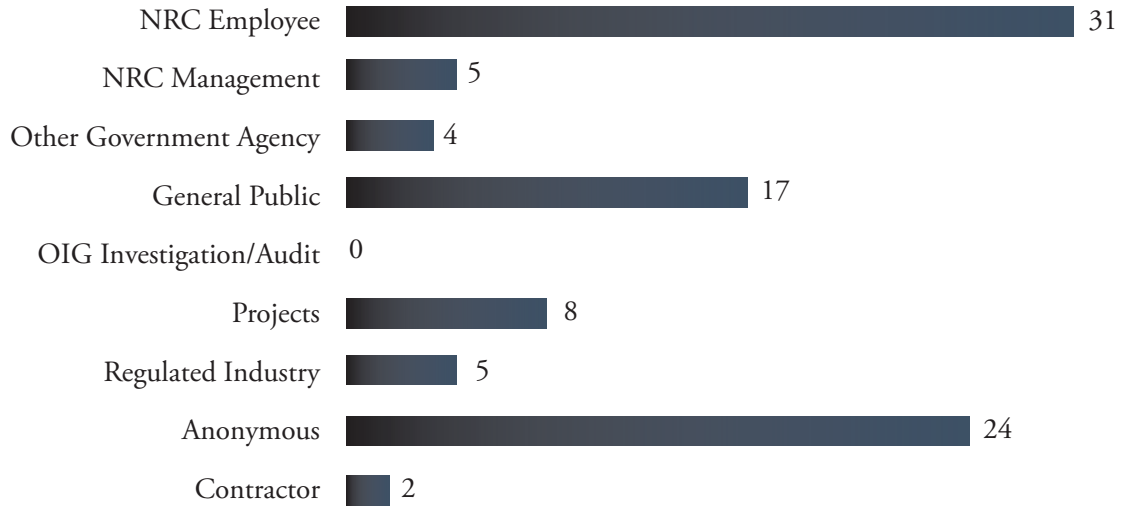
(Addresses Management and Performance Challenge #3)

Summary of OIG Accomplishments

April 1, 2011, through September 30, 2011

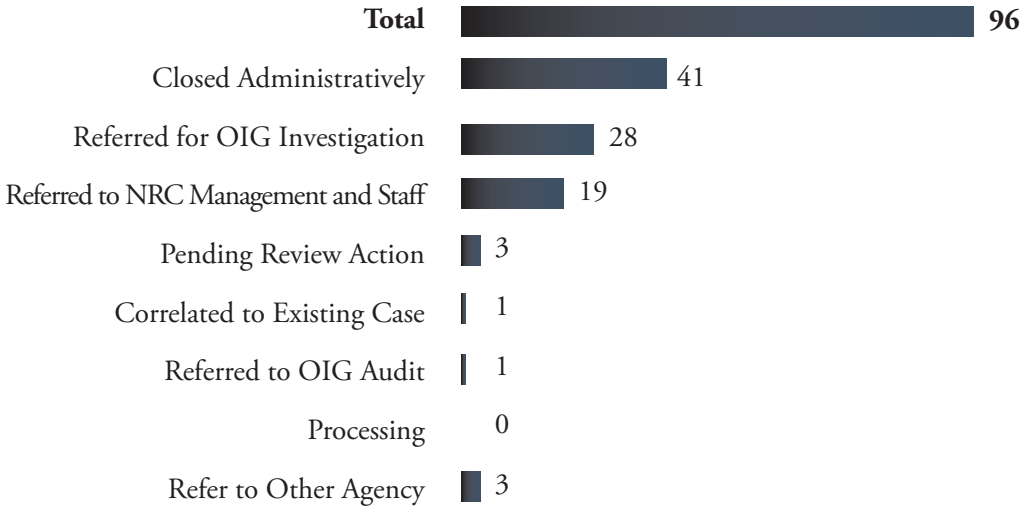
INVESTIGATIVE STATISTICS

Source of Allegations



Allegations resulting from Hotline Program: 39
Total: 96

Disposition of Allegations—April 1, 2011, through September 30, 2011



Status of Investigations

DOJ Acceptance	0
DOJ Referrals	5
DOJ Pending	2
DOJ Declinations	3
Sentencing	0
NRC Administrative Actions:	
Terminations and Resignations	0
Suspensions and Demotions	1
Counseling	6
Recoveries	0
Other	7
State Referrals	1
State Pending	1
State Accepted	0
PFCRA[18] Referral	1
PFCRA Acceptance	0
PFCRA Recovery	0
PFCRA Pending	1

Summary of Investigations

Classification of Investigations	Carryover	Opened Cases	Closed Cases	Cases In Progress
Employee Misconduct	25	15	17	23
Event Inquiry	3	0	2	1
External Fraud	6	1	1	6
False Statements	2	2	3	1
Management Misconduct	3	1	2	2
Miscellaneous	2	6	5	3
Misuse of Government Property	0	1	0	1
Proactive Initiatives	11	4	2	13
Technical Allegations	1	0	1	0
Theft	1	0	0	1
Grand Total	**54**	**30**	**33**	**51**

[18] *Program Fraud Civil Remedies Act.*

AUDIT LISTINGS

Internal Performance Audit and Evaluation Reports

Date	Title	Audit Number
05/03/2011	Audit of NRC's Oversight of ISFSI Security	OIG-11-A-10
05/09/2011	Audit of NRC's Shuttle Service	OIG-11-A-11
05/19/2011	Audit of NRC's Oversight of Independent Spent Fuel Storage Installations Safety	OIG-11-A-12
05/31/2011	Audit of NRC's Purchase Card Program	OIG-11-A-13
06/22/2011	Audit of NRC's Oversight of Master Materials Licensees	OIG-11-A-14
07/27/2011	Audit of NRC's Shared "S" Drive	OIG-11-A-15
07/27/2011	Audit of NRC's iLearn Learning Management System	OIG-11-A-16
09/19/2011	Audit of NRC's Management of Licensee Commitments	OIG-11-A-17
09/19/2011	Audit of NRC's SAPHIRE 8 System	OIG-11-A-18
09/21/2011	Evaluation of NRC's Oversight of Tritium Production at Commercial Nuclear Power Plants	OIG-11-A-19
09/29/2011	Audit of NRC's Internal Control Over Headquarters Fitness Center Membership Fees	OIG-11-A-20

Contract Audit Reports

OIG Issued Date	Contractor/Title/ Contract Number	Questioned Costs	Unsupported Costs
08/31/11	Southwest Research, Inc. Report on Audit of CFY 2009 Overhead, General & Administrative, Quality Assurance, Machine Shop, Material Handling, Fringe Benefits and Facilities Capital Cost of Money Provisional Billing and Bidding Rates		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
08/31/11	Southwest Research, Inc. Flash Report on Contractor's Lack of Provisional Billing and Bidding Rate Procedures		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
08/31/11	Southwest Research, Inc. Report on Audit of SwRI Disclosure Statement Revision No. 3		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
08/31/11	Southwest Research, Inc. Report on Audit of Accounting System-Control Environment and Monitoring Internal Controls		
	NRC-02-06-018	0	0

OIG Issued Date	Contractor/Title/ Contract Number	Questioned Costs	Unsupported Costs
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
08/31/11	Southwest Research, Inc. Report on SwRI's Provisional CFY 2010 Material Handling Burden Rate for Billing and Bidding Purposes		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
08/31/11	Southwest Research, Inc. Independent Audit of SwRI Noncompliance with Disclosure Statement and CAS 418 and CAS 420		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
08/31/11	Southwest Research, Inc. Report on Annual MAAR 6		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0

OIG Issued Date	Contractor/Title/ Contract Number	Questioned Costs	Unsupported Costs
08/31/11	Southwest Research, Inc. Independent Flash Report on Billing System Deficiencies Found in FY 2008 OMB A-133 Compliance Requirement M, Subrecipient Monitoring		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
08/31/11	Southwest Research, Inc. Report on Audit of SwRI's Compliance With Requirements Applicable to Major Program and Internal Control Over Compliance in Accordance with OMB Circular A-133, Contractor Fiscal Year 2008		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
09/06/11	Southwest Research, Inc. Independent Audit of SwRI's Material Handling Burden Provisional Rate Policies And Procedures		
	NRC-02-06-018	0	0
	NRC-02-06-021	0	0
	NRC-41-09-011	0	0
	NRC-03-09-070	0	0
	NRC-03-10-066	0	0
	NRC-03-10-070	0	0
	NRC-03-10-081	0	0
	NRC-04-10-144	0	0
	NRC-HQ-11-C-03-0047	0	0
	NRC-HQ-11-C-03-0058	0	0
09/07/11	M. Tuttle & Associates Independent Preaward Audit of M. Tuttle & Associates Accounting System		
	NRC-04-10-159	0	0

AUDIT RESOLUTION ACTIVITIES

TABLE I

OIG Reports Containing Questioned Costs[19]

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
E.	For which no management decision was made within 6 months of issuance	0	0	0

[19] *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[19]

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
E.	For which no management decision was made within 6 months of issuance	0	0

[19] *A "recommendation that funds be put to better use" is a recommendation by OIG that funds could be used more efficiently if NRC 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, 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

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

Date	Report Title	Number
05/26/2003	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 requirements, including, but not limited to, visual inspections of licensees' special nuclear material inventories and validation of reported information.	
9/26/2008	Audit of NRC's Enforcement Program	OIG-08-A-17
	Recommendation 2: Define systematic data collection requirements for non-escalated enforcement actions.	
	Recommendation 3: Develop and implement a quality assurance process that ensures that collected enforcement data is accurate and complete.	

Abbreviations and Acronyms

ADAMS	Agencywide Documents Access and Management System
ADM	Office of Administration (NRC)
CAL	confirmatory action letter
CFR	Code of Federal Regulations
DLR	Division of License Renewal (NRC)
DOE	U.S. Department of Energy
DPO	Differing Professional Opinion
FAR	Federal Acquisition Regulation
FISMA	Federal Information Security Management Act
FSME	Office of Federal and State Materials and Environmental Management Programs (NRC)
FY	Fiscal Year
GSA	General Services Administration
IAM	Issue Area Monitor
IG	Inspector General
ISFSI	independent spent fuel storage installation
ITAAC	inspections, tests, analyses, and the acceptance criteria
I-131	Iodine-131
MD	Management Directive
MML	Master Materials License
NRC	U.S. Nuclear Regulatory Commission
NRCAR	NRC Acquisition Regulation
OGC	Office of the General Counsel (NRC)
OI	Office of Investigations (NRC)
OIG	Office of the Inspector General (NRC)
PII	personally identifiable information
PRA	probabilistic risk assessment
SAPHIRE	Systems Analysis Programs for Hands-on Integrated Reliability Evaluations
SDP	significance determination process
SEIS	Supplemental Environment Impact Statement
SGI	safeguards information
SPAR	standardized plant analysis risk
SUNSI	Sensitive Unclassified Non-Safeguards Information
TAR	Technical Assistance Request
TPBAR	tritium producing burnable absorber rod
TVA	Tennessee Valley Authority
UMTRCA	Uranium Mill Tailings Radiation Control Act of 1978

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	6-8
Section 5(a)(1)	Significant Problems, Abuses, and Deficiencies	11–26, 33–36
Section 5(a)(2)	Recommendations for Corrective Action	11–26
Section 5(a)(3)	Prior Significant Recommendations Not Yet Completed	45
Section 5(a)(4)	Matters Referred to Prosecutive Authorities	38
Section 5(a)(5)	Information or Assistance Refused	None
Section 5(a)(6)	Listing of Audit Reports	39
Section 5(a)(7)	Summary of Significant Reports	11–26, 33–36
Section 5(a)(8)	Audit Reports—Questioned Costs	43
Section 5(a)(9)	Audit Reports—Funds Put to Better Use	44
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

Public Law 111-203, the Dodd-Frank Wall Street Reform and Consumer Protection Act, requires IGs to include their peer review results as an appendix to each *Semiannual Report to Congress.*

Section 989C	Peer Review Information	48

Appendix

Peer Review Information

The OIG Audit and Investigative Programs are peer reviewed every 3 years.

Audits

The NRC OIG Audit Program was peer reviewed most recently by the U.S. Small Business Administration Office of Inspector General. The peer review final report, dated August 24, 2009, reflected that NRC OIG received a peer review rating of pass. This is the highest rating possible based on the available options of pass, pass with deficiencies, or fail.

Investigations

The NRC OIG Investigative Program was peer reviewed most recently by the U.S. Department of State Office of Inspector General. The peer review final report, dated July 6, 2010, reflected that NRC OIG is in compliance with the quality standards established by the President's Council on Integrity and Efficiency/Executive Council on Integrity and Efficiency and the Attorney General guidelines.

OIG STRATEGIC 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.

The NRC OIG Hotline

The Hotline Program provides NRC 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.

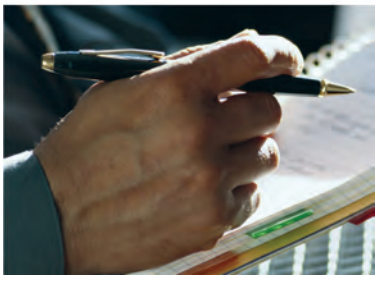
What should be reported:

- 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:
On-Line 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

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