SUMMARY OF THE NUCLEAR COMMISSION ACTIONS

RESPONSE TO THE GOVERNMENT ACCOUNTABILITY OFFICE REPORTS

**Government Accountability Office Report – Information Security: Federal Agencies Have Taken Steps to Secure Wireless Networks, but Further Actions Can Mitigate Risk
November 2010
(GAO-11-42SU)**

The U.S. Government Accountability Office (GAO) in its report, "Information Security: Federal Agencies Have Taken Steps to Secure Wireless Networks, but Further Actions Can Mitigate Risk," made three recommendations to the U.S. Nuclear Regulatory Commission (NRC) to improve the security controls with regard to agency use of wireless networks. In response, on January 26, 2011, the Chairman of the NRC informed Congress about the actions planned in response to the GAO recommendations. The status of the recommendation that remained open as of the NRC's last report is provided below.

<u>Recommendation 2</u>

Finalize and implement a written policy for configuring mobile devices when taken on international travel or to other potentially risky locations and for applying preventative measures to devices when they are returned.

<u>Status</u>:

The NRC provided high-level requirements for mobile devices taken on international travel in CSOSTD-0020, "Organization Defined Values for System Security Controls," associated with NIST SP-800-53 controls. The NRC continues to develop international travel guidance for NRC staff travelling to other countries and standards for the NRC electronic devices taken on such travel. The NRC will develop and implement standards for a secure data repository capability that can be used by both international and domestic travelers and remote workers.

This GAO recommendation remains open.

Government Accountability Office Report – Nuclear Regulatory Commission: Natural Hazard Assessments Could Be More Risk-Informed
April 2012
(GAO-12-465)

The U.S. Government Accountability Office (GAO), in its report, "Nuclear Regulatory Commission: Hazard Assessments Could Be More Risk-Informed," made a recommendation to the U.S. Nuclear Regulatory Commission (NRC) to analyze whether licensees of operating reactors should be required to develop Probabilistic Risk Assessments (PRAs) that address natural hazards. In response, on July 30, 2012, the NRC Chairman informed Congress about the actions directly related to this issue. The status of the recommendation that remained open as of the NRC's last report is provided below.

Recommendation

Analyze whether licensees of operating reactors should be required to develop PRAs that address natural hazards.

Status:

Although the NRC does not currently require PRAs for operating reactors, all operating reactor licenses have developed internal event PRA models and, in many cases, external event models. In addition, to evaluate the effects of recent seismic hazard reevaluations, a number of licensees are developing seismic PRAs.

The NRC has undertaken several independent activities to assess the risk of natural hazards at operating reactors. For example, the NRC's Office of Nuclear Regulatory Research has been conducting a pilot project to conduct a Level 3 PRA for Vogtle Electric Generating Plant, Units 1 and 2. This Level 3 PRA effort encompasses natural hazards typically considered in previous external event PRAs (e.g., seismic events, tornadoes, hurricanes, and external flooding), and addresses the impact of these natural hazards on one or both operating reactors at the site, as well as on spent fuel stored on site (in either pools or dry casks). This study may identify accident prevention, accident mitigation, and emergency planning improvements for the reactors, the spent fuel pools, and dry cask storage in response to natural hazards or other causes. This Level 3 PRA pilot project and its potential uses are discussed in SECY-12-0123, "Update on Staff Plans to Apply the Full-Scope Site Level 3 PRA Project Results to the NRC's Regulatory Framework," dated September 13, 2012.

In addition, the NRC has taken steps to advance the state of knowledge with regard to flooding risk assessments. In response to Commission direction, the NRC staff developed a multi-year probabilistic flood hazard assessment research plan (Agencywide Document Access and Management System Accession No. ML14296A442) that will help in the development of flooding PRAs in the future.

Finally, the NRC staff is currently evaluating other natural hazards (extreme winds, extreme temperatures, drought and other low-water conditions, and winter precipitation that results in snow and ice loading on structures) as part of its response to the accident at Fukushima Dai-ichi and Congressional direction included in the Consolidated Appropriations Act, 2012 (Public Law 112-74). The Commission has approved the staff's plan to address this issue and will receive the results of the staff's screening of relevant natural hazards later in 2016.

In 2011, former NRC Commissioner George Apostolakis led a risk management task force to consider a more comprehensive, holistic, risk-informed, performance-based regulatory approach for nuclear reactors, as well as for materials, waste, the fuel cycle, and transportation. An interoffice working group then considered the task force report, as well as other related risk-informed activities, in preparing options for future risk-informed regulation. The related Commission paper SECY-15-0168, "Recommendations on Issues Related to Implementation of a Risk Management Regulatory Framework," was issued on December 18, 2015. Commission direction resulting from SECY-15-0168 will enable the NRC staff to fully disposition this GAO recommendation.

This GAO recommendation remains open.

Government Accountability Office Report – Spent Nuclear Fuel: Accumulating Quantities at Commercial Reactors Present Storage and Other Challenges
August 2012
(GAO-12-797)

The U.S. Government Accountability Office (GAO), in its report, "Spent Nuclear Fuel: Accumulating Quantities at Commercial Reactors Present Storage and Other Challenges," recommended that the U.S. Nuclear Regulatory Commission (NRC) develop a mechanism for identifying and accessing all classified studies to help facilitate decisions on storing and disposing of spent nuclear fuel over the coming decades. The status of the recommendation that remained open as of the NRC's last report is provided below.

Recommendation

To help facilitate decisions on storing and disposing of spent nuclear fuel over the coming decades, the Chairman of the NRC should direct agency staff to develop a mechanism that allows individuals with appropriate clearances and the need to know to easily identify and access classified studies so as to help ensure that institutional knowledge is not lost.

Status:

The NRC staff committed to developing and implementing a pilot program database to include unclassified information detailing key attributes of classified documents to identify location and points of contact. The pilot program was completed in 2013, and the NRC staff completed a second, expanded pilot program in December 2014. The scope of the expanded pilot program extended beyond spent nuclear fuel studies and included a representative sampling of all classified documents and media received and produced by the NRC. To address concerns regarding classification by compilation, during the course of the second pilot program, the participants developed a localized catalog of the classified documents and media in their possession and tracked the level of effort associated with completing this task. The staff compiled the data gathered from the second pilot program and documented lessons learned regarding classified records management at the NRC.

In April 2015, the NRC staff provided the Commission with the following recommendations for maintaining accountability of all classified documents and media received and produced by the NRC in the future:

(1) Institute annual classified information clean-up days at the NRC Headquarters and regional facilities;
(2) Develop security plans for General Services Administration-approved safes with local catalogs of safes' contents;
(3) Provide classified records management training to applicable staff; and
(4) Expand use of the National Archives and Records Administration's Federal Records Centers.

These recommendations are scheduled to be implementetd by the end of the 2016 calendar year.

This GAO recommendation remains open.

Government Accountability Office Report 13-743 – Nuclear Power: Analysis of Regional Differences and Improved Access to Information Could Strengthen NRC Oversight
September 2013
(GAO-13-743)

The U.S. Government Accountability Office (GAO), in its report, "Nuclear Power: Analysis of Regional Differences and Improved Access to Information Could Strengthen NRC Oversight," made three recommendations to the U.S. Nuclear Regulatory Commission (NRC) regarding identification, resolution, and tracking of inspection findings. In response, on December 16, 2013, the Chairman of the NRC informed Congress about the planned response to the recommendations identified by GAO. The status of the recommendation that remained open as of the NRC's last report is provided below.

Recommendation 3

To help the NRC staff more efficiently use past experiences in its oversight activities, the NRC Commissioners direct agency officials to evaluate the challenges inspectors face in retrieving all relevant information on plant performance and previous oversight activities, and improve its systems accordingly to address these challenges.

Status:

The NRC is making plant performance and oversight information more readily searchable and available to NRC inspection staff and other appropriate NRC personnel. As an example, the NRC is working to upgrade the Reactor Program Systems software and improve staff access to operating experience. The NRC plans to integrate these changes with an update to the internal Resident Inspector webpage. These enhancements are estimated to be completed in fiscal year (FY) 2017. In addition, the NRC has implemented new methods for soliciting anonymous feedback/comments on administrative and support concerns relevant to Resident Inspectors.

This GAO recommendation remains open.

Government Accountability Office Report – Information Technology: Additional OMB and Agency Actions Are Needed to Achieve Portfolio Savings
November 2013
(GAO-14-65)

The U.S. Government Accountability Office (GAO), in its report, "*Information Technology: Additional OMB and Agency Actions Are Needed to Achieve Portfolio Savings,*" reviewed the Office of Management and Budget's (OMB) policy, requirements, and implementation of the 2012 PortfolioStat initiative, a process whereby 26 Federal agencies, including the U.S. Nuclear Regulatory Commission (NRC), gather information on their information technology (IT) investments and develop plans for consolidation and increased use of shared service delivery models. To improve the NRC's implementation of PortfolioStat, GAO made two recommendations. The status of the recommendation that remained open as of the NRC's last report is provided below.

Recommendation 1

Develop a complete commodity IT baseline.

Status:

The NRC is still developing a complete commodity IT baseline. There are a number of steps required to develop this baseline. These include centralizing IT commodity spending and then developing an NRC commodity IT baseline aligned with OMB policy.

The NRC continues to make progress in centralizing its IT commodity spending under the Office of the Chief Information Officer. The NRC has restructured its IT portfolio to provide greater transparency regarding IT costs, including commodity IT. The NRC Financial Accounting and Integrated Management Information System (FAIMIS) now provides detailed reports of IT spending by contract. The NRC is also using its IT Portfolio Council to analyze commodity categorizations and IT spending within those categories.

Starting in FY 2016, OMB began issuing a number of category policy memos to help agencies develop the commodity IT baseline. The first IT category management policy memorandum, OMB M-16-02, established new acquisition and workstation management policies across the Federal Government. The OMB M-16-02 plan asks agencies to report details about contracts and contract spending. NRC will provide the transition and implementation plan to OMB by February 29, 2016.

This GAO recommendation remains open.

Government Accountability Office Report – Nuclear Nonproliferation: Additional Actions Needed to Increase the Security of U.S. Industrial Radiological Sources
June 2014
(GAO-14-293)

The U.S. Government Accountability Office (GAO), in its report, "Nuclear Nonproliferation: Additional Actions Needed to Increase the Security of U.S. Industrial Radiological Sources," made three recommendations solely to the U.S. Nuclear Regulatory Commission (NRC) and one recommendation jointly to the NRC, the U.S. Department of Energy and the U.S. Department of Homeland Security regarding security at NRC-licensed and Agreement-State-licensed facilities using high-risk industrial radiological sources. The status of the recommendations that remained open as of the NRC's last report is provided below.

Recommendation 2

To ensure that the security of radiological sources at industrial facilities is reasonably assured, the Chairman of the NRC should reconsider whether the definition of collocation should be revised for well logging facilities that routinely keep radiological sources in a single storage area but secured in separate storage containers.

Status:

The NRC acknowledges the GAO's recommendation that the definition of collocation should be re-evaluated for well logging facilities that routinely keep radiological sources in a single storage area, but secured in separate containers. Inspection of collocated sources indicates that appropriate security is being maintained by licensees. The NRC is currently reviewing the effectiveness of the 10 CFR Part 37 requirements to determine whether any additional security measures, guidance documents (including revising NUREG-2155, "Implementation Guidance for 10 CFR Part 37, 'Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material'" and the Best Practices Guide), rulemaking changes or licensee outreach efforts are appropriate. The re-evaluation of the definition of collocation is included in this effort. A final report, detailing the results of this program review is scheduled to be provided to Congress in December 2016.

This GAO recommendation remains open.

Recommendation 3

To ensure that the security of radiological sources at industrial facilities is reasonably assured, the Chairman of the NRC should conduct an assessment of the trustworthiness and reliability (T&R) process--by which licensees approve employees for unescorted access--to determine if it provides reasonable assurance against insider threats, including (1) determining why criminal history information concerning convictions for terroristic threats was not provided to a licensee during the T&R process to establish if this represents an isolated case or a systemic weakness in the T&R process; and (2) revising, to the extent permitted by law, the T&R process to provide specific guidance to licensees on how to review an employee's background. The NRC should also consider whether certain criminal convictions or other indicators should disqualify an employee from T&R or trigger a greater role for NRC.

<u>Status</u>:

The NRC acknowledges the GAO's recommended assessment of the T&R process to determine if it provides reasonable assurance against an insider threat. The current T&R requirements are in place to ensure that individuals who have unescorted access to category 1 and category 2 quantities of radioactive material are trustworthy and reliable and do not constitute an unreasonable risk to the public health and safety or security of the radioactive material.

Licensees are required to conduct a number of activities, pursuant to 10 CFR 37.25, in order to make a T&R determination for unescorted access to category 1 and 2 quantities of radioactive materials. This includes a Federal Bureau of Investigation identification and criminal history records check to determine if an individual has a record of criminal activity that indicates that the individual should not have unescorted access to category 1 and category 2 quantities of radioactive materials. The NRC published "Physical Security Best Practices for the Protection of Risk Significant Radioactive Material" in May 2014, which provides additional guidance to licensees in conducting and evaluating T&R determinations. The NRC is reviewing the effectiveness of the 10 CFR Part 37 requirements to determine whether any additional security measures, guidance updates (including revising NUREG-2155, "Implementation Guidance for 10 CFR Part 37, 'Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material'" and the Best Practices Guide), rulemaking changes or licensee outreach efforts are appropriate. An assessment of the T&R process will be included as part of this program review. A final report detailing the results of this program review, is scheduled to be provided to Congress in December 2016.

This GAO recommendation remains open.

Government Accountability Office Report – Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide
May 2014
(GAO-14-413)

The U.S. Government Accountability Office (GAO), in its report "Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide," made recommendations to many government entities, including the U.S. Nuclear Regulatory Commission (NRC), to ensure the effective management of software licenses. The status of the recommendations that remained open as of the NRC's last report is provide below.

Recommendation 1

Develop an agency-wide comprehensive policy for the management of software licenses that address the weaknesses identified by GAO.

Status:

The NRC has developed a framework and maturity model for Software Asset Management (SAM) and is developing an activity plan to further integrate governance, processes and technology. The NRC is also developing an acquisition strategy for a SAM tool as part of a strategic realignment of the agency's infrastructure and support services contract in 2017.

This GAO recommendation remains open.

Recommendation 2

Employ a centralized software license management approach that is coordinated and integrated with key personnel for the majority of agency software license spending and/or enterprise-wide licenses.

Status:

The NRC has defined current and future needs for a centralized software license management approach, including process maps developed to identify the roles and responsibility of each key stakeholder for key high level processes for software management. The NRC will continue to define core processes as part of its overall IT strategy.

This GAO recommendation remains open.

Recommendation 3

Establish a comprehensive inventory of software licenses using automated tools for the majority of agency software license spending and/or enterprise-wise licenses.

Status:

The NRC is continuing to centralize and standardize purchases of software licenses. Currently, software that is managed through the Information Technology Infrastructure Support Services (ITISS) contract are maintained using automated tools. The NRC is also developing an acquisition strategy for a SAM tool as part of a strategic realignment of the agency's infrastructure and support services contract in 2017.

This GAO recommendation remains open.

Recommendation 4

Regularly track and maintain a comprehensive inventory of software licenses using automated tools and metrics.

Status:

The NRC comprehensively reviewed the governance, processes and technology relating to NRC's management of software assets. As part of this assessment, the requirements for automated tools were identified. As discussed above, the NRC is developing an acquisition strategy for a SAM tool as part of a strategic realignment of the agency's infrastructure and support services contract in 2017.

This GAO recommendation remains open.

Recommendation 5

Analyze agency-wide software license data, such as costs, benefits, usage, and trending data, to identify opportunities to reduce costs and better inform investment decision making.

Status:

The NRC has developed a SAM framework and maturity model and is continuing to centralize, standardize, and consolidate purchases of software licenses and enterprise-wide initiatives. Additionally, NRC is in the process of completing a future state roadmap and activity plan which will assist the agency in making informed decisions regarding SAM. As discussed above, the acquisition strategy for a software asset management tool to perform these analyses, identify opportunities to reduce costs, and improve investment decision-making is in alignment with the re-compete of the agency's infrastructure and support services contract in 2017.

This GAO recommendation remains open.

Recommendation 6

Provide software license management training to appropriate agency personnel addressing contract terms and conditions, negotiations, laws and regulations, acquisition, security planning, and configuration management.

<u>Status</u>:

NRC employees with an acquisition role receive significant training required for the Federal Acquisition Certification. For the software license topic specifically referenced in the recommendation, as described above, the NRC is considering its management of software assets as part of its overall IT strategy. Once the policy is established and the software asset management tool is acquired, the NRC will provide appropriate training to agency personnel addressing contract terms and conditions, negotiations, laws and regulations, acquisition, security planning, and configuration management. This is in alignment with the re-compete of the agency's infrastructure and support services contract in 2017.

This GAO recommendation remains open.

Government Accountability Office Report - Nuclear Regulatory Commission: NRC Needs to Improve Its Cost Estimates by Incorporating More Best Practices
December 2014
(GAO-15-98)

In GAO-15-98, the U.S. Government Accountability Office (GAO) recommended that the U.S. Nuclear Regulatory Commission (NRC) align its procedures with relevant cost-estimating best practices identified in GAO-089-3SP, "GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs" (March 2009). In response, on February 10, 2015, the NRC's Chairman informed Congress of the actions the NRC planned to take in response to GAO's recommendation. The status of the actions described in that response is provided below.

Recommendation

To improve the reliability of its cost estimates, we recommend that, as the NRC revises its cost estimating procedures, the NRC Chairman ensures that the agency aligns the procedures with relevant cost estimating best practices identified in the *GAO Cost Estimating and Assessment Guide* and ensure that future cost estimates are prepared in accordance with relevant cost estimating best practices.

Status:

The NRC staff agrees with GAO's statement that the NRC could improve its regulatory analyses, and the NRC has efforts underway to do so. The NRC has discussed its efforts with GAO. The NRC does not, however, believe that the standards GAO used to assess our program, set forth in the *GAO Cost Estimating and Assessment Guide*, are appropriate for the types of analyses the NRC prepares. The standards in the GAO guide apply to evaluating Federal agency capital expenditures (acquisitions). By contrast, the NRC uses the regulatory analyses to evaluate proposed actions affecting entities that the NRC regulates. For these types of actions, the NRC follows standard Federal agency practice by using Office of Management and Budget (OMB) guidance on the attributes of a regulatory analysis (OMB Circular A-4, "Regulatory Analysis").

The NRC includes OMB Circular A-4 as an essential reference in our guidance on preparing regulatory analyses for rulemakings and other regulatory actions. Consistent with OMB Circular A-4, and in response to certain recommendations in GAO-15-98, the NRC staff is updating the content and structure of its cost-benefit guidance documents. In particular, the NRC is updating NUREG/BR-0058, "Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission," and NUREG/BR-0184, "Regulatory Analysis Technical Handbook."

As the NRC updates its cost-benefit guidance documents, we are considering relevant best practices and feedback that GAO has provided. The NRC is also considering input from the NRC's Office of the Inspector General, NRC licensees, the Nuclear Energy Institute, and other stakeholders. The NRC's updates to our cost-benefit guidance documents are currently in progress, and the draft guidance is expected to be issued for public comment in the fall of 2016.

This GAO recommendation remains open.

Government Accountability Office Report – Information Technology Reform: Billions of Dollars in Savings Have Been Realized, but Agencies Need to Complete Reinvestment Plans
September 2015
(GAO-15-617)

The U.S. Government Accountability Office (GAO), in its report, "*Information Technology Reform: Billions of Dollars in Savings Have Been Realized, but Agencies Need to Complete Reinvestment Plans,*" reviewed the information technology (IT) agency cost savings resulting from data center consolidation and PortfolioStat actions since 2012 to determine how agencies reinvested their savings. GAO's objectives were to (1) assess agencies' progress in achieving savings from their IT reform efforts; (2) evaluate the extent to which agencies have established plans to reinvest their savings; and (3) evaluate how selected agencies have reinvested their savings, including the extent to which IT governance processes are in place to oversee such reinvestments. GAO recommended the Chairman of the U.S. Nuclear Regulatory Commission direct the Chief Information Officer to take the following two actions.

Recommendation 1

As part of any future update to the agency's information resources management strategic plan or equivalent document, include information regarding the approach to reinvesting savings from the consolidation of commodity IT resources (including data centers) in accordance with OMB's guidance.

Status:

The next NRC IT/IM Strategic Plan revision is scheduled for February 2018. This date is in alignment with the Government Performance and Results Modernization Act of 2010. The Strategic Plan revision will include, in accordance with OMB guidance, information regarding the approach to reinvesting savings from the consolidation of commodity IT resources (including data centers).

This GAO recommendation remains open.

Recommendation 2

Ensure that the agency's integrated data collection submission to OMB includes, for all reported initiatives, complete plans to reinvest any resulting cost savings and avoidances from OMB-directed IT reform-related efforts.

Status:

OMB informed NRC that the quarterly integrated data collection instruction is being revised to include agency submission of plans to reinvest cost savings and avoidances. NRC will implement the necessary process to meet the new OMB data submission requirements.

This GAO recommendation remains open.