

SUMMARY OF NRC ACTIONS

RESPONSE TO GAO REPORTS

1.	Nuclear Security: Actions Taken by NRC to Strengthen Its Licensing Process for Sealed Radioactive Sources Are Not Effective (GAO-07-1038T)	2
2.	Nuclear Security: NRC and DHS Need to Take Additional Steps to Better Track and Detect Radioactive Materials (GAO-08-598 and GAO-08-839SU)	4
3.	Nuclear Safety: Convention on Nuclear Safety Is Viewed by Most Member Countries as Strengthening Safety Worldwide (GAO-10-489)	6
4.	Information Security: Federal Agencies Have Taken Steps to Secure Wireless Networks, but Further Actions Can Mitigate Risk (GAO-11-42SU)	8
5.	Nuclear Regulatory Commission: Oversight of Underground Piping Systems Commensurate with Risk, but Proactive Measures Could Help Address Future Leaks (GAO-11-563)	9
6.	Data Center Consolidation: Agencies Need to Complete Inventories and Plans to Achieve Expected Savings (GAO-11-565)	11
7.	Nuclear Regulation: Nuclear Regulatory Commission's Oversight of Nuclear Power Reactors' Decommissioning Funds Could Be Further Strengthened (GAO-12-258)	12
8.	Nuclear Regulatory Commission: Natural Hazard Assessments Could Be More Risk-Informed (GAO-12-465)	14
9.	Uranium Mining: Opportunities Exist to Improve Oversight of Financial Assurances (GAO-12-544)	16
10.	Organizational Transformation: Enterprise Architecture Value Needs to be Measured and Reported (GAO-12-791)	17
11.	Spent Nuclear Fuel: Accumulating Quantities at Commercial Reactors Present Storage and Other Challenges (GAO-12-797)	19
12.	Nuclear Nonproliferation: Additional Actions Needed to Improve Security of Radiological Sources at U.S. Medical Facilities (GAO-12-925)	20

**GAO Testimony - Nuclear Security: Actions Taken by NRC to Strengthen Its Licensing
Process for Sealed Radioactive Sources Are Not Effective
July 2007
(GAO-07-1038T)**

In its report, "Nuclear Security: Actions Taken by NRC to Strengthen Its Licensing Process for Sealed Radioactive Sources Are Not Effective," the U.S. Government Accountability Office (GAO) made recommendations to correct weaknesses in the U.S. Nuclear Regulatory Commission's (NRC's) materials licensing program that were identified during GAO's testing of the licensing program using covert investigative methods. The recommendation to the NRC that remained open as of the agency's last report is provided below.

Recommendation 3

NRC should explore options to prevent individuals from counterfeiting NRC licenses, especially if this allows the purchase of more radioactive materials than they are approved for under the terms of the original license.

Status:

The Materials Program Working Group was established in 2007 and chartered to prepare a report that would assess specific and potential security vulnerabilities in NRC's radioactive materials program and provide recommendations to address any identified vulnerabilities. As part of its assessment, the Working Group evaluated options to prevent counterfeiting of radioactive materials licenses and improve license verification. The Working Group concluded that properly implemented measures for license verification and material tracking will render the physical counterfeiting of a paper license ineffective. The Working Group recommended that the NRC and the Agreement States develop mechanisms to verify licensee authorizations and inventory compliance in conjunction with the source tracking capabilities of the National Source Tracking System (NSTS). On December 31, 2008, the NSTS was deployed and made available to NRC and Agreement State licensees to track risk-significant sources.

The NRC is working with the Agreement States to develop a secure nationwide Web-based license verification system (LVS), whereby licensees and other authorized individuals will be able to verify that radioactive material transactions are authorized and do not exceed license limits by verifying transaction information against the regulator's licensing data. The LVS is being designed to interface with a Web-based licensing (WBL) system. The WBL was deployed August 31, 2012. The LVS will be deployed May 2013. At this time, NRC and Agreement States conduct prelicensing visits to new license applicants to verify the validity of the information submitted to obtain a new radioactive material license. Also, new regulations are being developed for transactions of Category 1 and 2 radioactive materials that will require licensees to verify with the license-issuing authority that the transferee's license authorizes the receipt of the type, form, and quantity of the radioactive material requested, and, for Category 1 shipments, to verify the validity of the address where radioactive material is requested to be delivered. These regulations are included in the final rule package in Title 10 of the Code of Federal Regulations Part 37, Physical Protection of Byproduct Material, which was submitted to the Commission in December 2011 and approved in March 2012. The final rule package was submitted to OMB for clearance in July 2012. As of January 2013, the final rule cleared OMB and should be published during the first quarter of calendar year 2013.

Ultimately, the implementation of the NRC's electronic LVS will fully address this GAO recommendation for NRC and Agreement State radioactive material licenses.

This GAO recommendation remains open.

GAO Report - Nuclear Security: NRC and DHS Need to Take Additional Steps to Better Track and Detect Radioactive Materials
June 2008
(GAO-08-598 and GAO-08-839SU)

In its report, "Nuclear Security: NRC and DHS Need to Take Additional Steps to Better Track and Detect Radioactive Materials," the U.S. Government Accountability Office (GAO) assessed the progress the U.S. Nuclear Regulatory Commission (NRC) has made in implementing recommendations from GAO's 2003 report, "Nuclear Security: Federal and State Action Needed to Improve Security of Sealed Radioactive Sources" (GAO-03-804), and other steps NRC has taken to improve its ability to track radioactive materials. GAO provided NRC two recommendations to ensure priority attention is given to implementing new tracking and licensing systems, and to include additional radioactive sources in its tracking systems. The recommendation that remained open as of the NRC's last report is provided below:

Recommendation 1

The Chairman of the NRC take steps, consistent with sound systems development practices, to ensure that priority attention is given to meeting the current January 2009, and summer 2010 target dates for launching the National Source Tracking System, Web-Based Licensing System, and the new License Verification System, respectively.

Status:

The Commission has placed a high priority on the deployment of these systems. The National Source Tracking System was deployed on December 31, 2008, and the Web-Based Licensing System was deployed on August 31, 2012. We plan to deploy the License Verification System in May 2013.

An integrated project team, with representatives from all involved offices, meets weekly to discuss the progress of individual projects, coordinate actions and identify any potential issues for senior management attention. Senior managers from all involved offices meet monthly on these projects to ensure that appropriate focus is maintained, that challenges to success are systematically identified and addressed, that progress is properly communicated throughout the organization, and that tasks and resources are coordinated and prioritized.

In accordance with Office of Management and Budget guidance, the NRC has employed sound system development practices. The NRC (1) assigned professionally certified project managers to the National Source Tracking System, Web-Based Licensing System, and License Verification System projects, (2) set reasonable performance baselines and integrated project schedules for each of these projects, and (3) is employing earned value management on each of the three projects: National Source Tracking System, Web-Based Licensing System, and License Verification System.

A request for proposals to acquire implementation services for NRC's Integrated Source Management Portfolio was issued in September 2009. The Integrated Source Management Portfolio is a set of information technology tools that will provide a Web-based solution to (1) enable an up-to-date accounting of the possession of the most risk-significant radioactive sources in the nation, (2) authenticate the validity of radioactive material licenses, and (3) modernize materials licensing. The contract, awarded in May 2010, provides services that include developing the Licensing Verification System. A requirements validation workshop was held at NRC Headquarters

in October 2010 with representatives from the NRC regional offices, Agreement States, and licensees. A similar workshop for the License Verification System was held in March 2011 and the License Verification System requirements were delivered to the contractor in April 2011. The system architectures for the Web-Based Licensing System and License Verification System were approved in July 2011 and October 2011, respectively. The NRC staff, through a joint NRC/Agreement State working group, established a process to include Agreement State license data in the Web-Based Licensing System. About 80% of the Agreement State Category 1 and 2 radioactive material license images have been added to the Web-Based Licensing System by the NRC contractor. NRC is still receiving the remaining license information from Agreement States.

This GAO recommendation remains open.

GAO Report – Nuclear Safety: Convention on Nuclear Safety is Viewed by Most Member Countries as Strengthening Safety Worldwide
April 2010
(GAO-10-489)

The U.S. Government Accountability Office (GAO), in its report: “Nuclear Safety: Convention on Nuclear Safety is Viewed by Most Member Countries as Strengthening Safety Worldwide,” made three recommendations to the U.S. Nuclear Regulatory Commission (NRC) to further enhance the usefulness of the Convention in promoting the safety of civilian nuclear power programs worldwide. On July 30, 2010, the Chairman of the NRC informed Congress about the actions planned in response to the recommendations identified by GAO. The status of the actions taken by the NRC in response to the GAO recommendations is provided below.

Recommendation 1

Encourage parties to include performance metrics in national reports to better track safety in civilian nuclear power plants and help countries more systematically measure where and how they have made progress in improving safety.

Status:

On December 20, 2010, the U.S. submitted a proposal to IAEA and all Convention on Nuclear Safety Contracting Parties to establish a mechanism to assess how effectively Contracting Parties are achieving the objectives of the Convention. One method for achieving this would be for Contracting Parties to consider including safety performance metrics for operating nuclear power plants in the National Reports. The U.S. presented this proposal and an additional proposal to enhance the effectiveness of the Convention to the Open Ended Working Group during the Convention on Nuclear Safety 5th Review Meeting that took place in April 2011 in Vienna, Austria. The Open Ended Working Group received a total of eleven (11) proposals from various Contracting Parties. Given the substantial time devoted to the response to the Fukushima Daiichi accident, the Open Ended Working Group was only able to discuss three of the eleven proposals submitted. The remaining eight proposals, including both proposals submitted by the U.S., were deferred for discussion during future meetings.

During the 5th Convention on Nuclear Safety, Contracting Parties committed to hold an Extraordinary Meeting in August 2012 to share lessons learned from Fukushima and to evaluate the effectiveness of the Convention. The U.S. proposal on improving the effectiveness of the Convention on Nuclear Safety was re-submitted and given full consideration. The Convention on Nuclear Safety guidance documents were modified to include the concepts of this proposal.

The proposal to consider including safety performance metrics is not directly associated to the lessons learned from Fukushima; thus, it was not discussed in the August 2012 Extraordinary Meeting. This proposal will be presented during the Convention on Nuclear Safety 6th Review Meeting in 2014. All proposals must be adopted by consensus.

The NRC considers this GAO recommendation to be closed.

Recommendation 2

Expand efforts to increase the number of parties’ national reports made available to the public by posting them to IAEA’s public Web site.

Status:

The U.S. leads by example by always making its National Report available to the public on the NRC and the IAEA's web sites. In addition, the U.S. currently has two leadership positions in the Convention on Nuclear Safety and they have been working with the leaders from other countries in encouraging all Contracting Parties to also make their reports publicly available. Under our leadership, on December 22, 2010, by message from the Convention on Nuclear Safety Scientific Secretary, all Contracting Parties were reminded that: "in the spirit of openness and transparency, Contracting Parties are encouraged to notify IAEA when they agree to have their National Reports posted on the IAEA public website." Further, improvements in the areas of openness will be discussed during the meetings of the working group of Convention on Nuclear Safety effectiveness and transparency. The NRC and the U.S. Department of State have encouraged and will continue to encourage Contracting Parties to make as much information publicly accessible as possible.

The NRC considers this GAO recommendation to be closed.

Recommendation 3

Promote greater public dissemination of parties' written answers to questions about their nuclear power programs by posting this information on IAEA's public Web site.

Status:

The U.S. leads by example by always making its written answers to questions about our National Report available to the public on the NRC and the IAEA's web sites. Similar to the process for making the National Reports available, countries need to notify IAEA when they agree to have their answers posted on the IAEA public website. As discussed under recommendation 2, improvements in the areas of openness will be discussed during the meetings of the working group of Convention on Nuclear Safety effectiveness and transparency. The U.S. has and will continue to promote dissemination of the Contracting Parties' answers.

The NRC considers this GAO recommendation to be closed.

GAO 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 actions taken by the NRC in response to the GAO recommendations is provided below.

Recommendation 1

Finalize and implement a policy regarding usage restrictions and implementation guidance for wireless networks, including wireless network and wireless-security specific security controls.

Status:

The NRC expects to finalize and implement a policy regarding usage restrictions in Management Directive and Handbook 12.5, NRC Cyber Security Program, by the end of fiscal year 2014. NRC expects to complete the implementation guidance for wireless networks, including wireless network and wireless-specific security controls by the end of fiscal year 2014.

This GAO recommendation remains open.

Recommendation 2

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.

Status:

The NRC has provided high-level requirements for mobile devices taken on international travel in CSO-STD-0020, “Organization Defined Values for System Security Controls,” associated with NIST SP-800-53 controls. NRC expects to complete the implementation guidance for preventive measures associated with international travel by the end of the fiscal year.

This GAO recommendation remains open.

**GAO Report - Oversight of Underground Piping Systems Commensurate with Risk, but
Proactive Measures Could Help Address Future Leaks
June 2011
(GAO-11-563)**

The U.S. Government Accountability Office (GAO), in its report: "Oversight of Underground Piping Systems Commensurate with Risk, but Proactive Measures Could Help Address Future Leaks," made two recommendations to the U.S. Nuclear Regulatory Commission (NRC). In response, on August 19, 2011, the Chairman of the NRC informed Congress about the actions planned in response to the recommendations identified by GAO (ML11207A532). The status of the actions taken by the NRC in response to the GAO recommendations is provided below.

Recommendation 1

Periodically evaluate the extent to which the industry's voluntary Groundwater Protection Initiative will result in prompt detection of leaks and, based upon these evaluations, determine whether the agency should expand its ground water monitoring requirements.

Status:

The staff is monitoring the industry's voluntary initiatives to determine if the initiatives are being conducted in a committed and enduring fashion, and are successful in detecting leaks. The results of recent groundwater inspections have not identified the need to expand its ground water monitoring requirements. Therefore, no changes to the regulatory framework are currently being contemplated.

Nevertheless, on August 15, 2011, the Commission issued a staff requirements memorandum requesting options to potentially revise the overall regulatory approach to groundwater protection (Agencywide Documents Access and Management System [ADAMS] Accession No. ML112270292). On March 29, 2012, the options were provided to the Commission via SECY 2012-0046 (ML12025A113). On May 24, 2012, the Commission voted to continue the current regulatory approach to groundwater protection including the recently imposed additional requirements contained in the decommissioning planning rule (i.e., to require licensees to minimize the introduction of residual radioactivity into the site and to perform subsurface (groundwater) surveys (ML121450704).

The NRC considers this GAO recommendation to be closed.

Recommendation 2

Stay abreast of ongoing industry research to develop technologies for structural integrity tests and, when they become feasible, analyze costs to licensees of implementing these tests compared with the likely benefits to public health and safety. Based on this analysis, NRC should determine whether it should expand licensees' inspection requirements to include structural integrity tests for safety-related underground piping.

Status:

As part of the Office of Regulatory Research's program, the NRC is actively staying abreast of industry research efforts via participation in American Society of Mechanical Engineers Boiler and Pressure Vessel Committees, interaction with Electric Power Research Institute personnel,

information sharing with other agencies and participation in international meetings to discuss inspection technology for buried and underground piping. The industry is working to develop inspection technology for remote, non-destructive acquisition of structural integrity information in buried piping systems. Some new robotic remote-delivery technology has been deployed; other new technology is under development. The agency has established milestones in the staff's Buried Piping Action Plan (ADAMS Accession No. ML11332A122) to periodically assess both the performance of available technology and the need to make changes to the current regulatory framework.

The NRC considers this GAO recommendation to be closed.

GAO Report – Data Center Consolidation: Agencies Need to Complete Inventories and Plans to Achieve Expected Savings
July 2011
(GAO-11-565)

The U.S. Government Accountability Office (GAO), in its report “Data Center Consolidation: Agencies Need to Complete Inventories and Plans to Achieve Expected Savings” made recommendations to the U.S. Nuclear Regulatory Commission (NRC) on data center consolidation efforts.

In the most recently released version of its data center consolidation inventories and plans, the NRC completed the key plan elements that were identified by GAO for inclusion in the consolidation plan. Additionally, the NRC leveraged information collected to ensure that known risks were identified, prioritized, and mitigated to the greatest extent possible. A risk management matrix with associated mitigation strategies was completed in January 2012. The recommendation that remained open as of the NRC’s last report is provided below:

Recommendation 1

The secretaries and agency heads of the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Interior, Justice, Labor, State, Transportation, Treasury, and Veterans Affairs; the Environmental Protection Agency, the General Services Administration, the National Aeronautics and Space Administration, the National Science Foundation, the Nuclear Regulatory Commission, the Office of Personnel Management, the Small Business Administration, the Social Security Administration, and the U.S. Agency for International Development should direct their component agencies and their data center consolidation program managers to complete the missing elements in their respective data center consolidation inventories and plans.

Status:

In June 2011, the NRC completed “key inventory elements” by fully assessing the number of virtual hosts and virtual operating systems in the NRC information technology environment. This information was reported to OMB. The NRC is in the second phase of the consolidation effort and completed the “key plan elements” that were identified by GAO for inclusion in the consolidation plan update which was completed in August 2012.

The NRC considers this GAO recommendation to be closed.

**GAO Report – Nuclear Regulation: Nuclear Regulatory Commission's Oversight of Nuclear
Power Reactors' Decommissioning Funds
Could Be Further Strengthened
May 2012
(GAO-12-258)**

The U.S. Government Accountability Office (GAO), in its report, “Nuclear Regulatory Commission's Oversight of Nuclear Power Reactors' Decommissioning Funds Could Be Further Strengthened” (GAO-12-258), provided five recommendations to the U.S. Nuclear Regulatory Commission (NRC) regarding decommissioning funding oversight. The status of the actions taken by the NRC in response to the GAO recommendation is provided below.

Recommendation 1

Ensure reliability as part of the agency's process of reevaluating its decommissioning funding formula, by defining what the agency means by the “bulk” of the funds that licensees will likely need to decommission their reactors.

Status:

The NRC is re-evaluating the formula which will include a comparison of the minimum amount needed for decommissioning compared to the range of expected decommissioning costs. In addition to information provided in an NRC-commissioned study on the adequacy of the minimum formula, the NRC will conduct a Category 2 public meeting on February 27, 2013 to solicit input from the industry regarding the NRC minimum formula. The staff will provide the Commission a paper on this topic in June 2013.

This GAO recommendation remains open.

Recommendation 2

Ensure reliability as part of the agency's process of reevaluating its decommissioning funding formula by using the cost-estimating characteristics as a guide for a high-quality cost-estimating formula in the event that NRC chooses to update the formula.

Status:

The NRC will continue to ensure that its decommissioning funding formula provides a credible and well-documented basis, as recommended by the GAO guidelines, for establishing the minimum amount of funding needed to decommission a reactor. As discussed under Recommendation 1, in addition to information provided in an NRC-commissioned study on the adequacy of the minimum formula, the NRC will conduct a Category 2 public meeting on February 27, 2013, to solicit input from the industry regarding the NRC minimum formula. The staff will provide the Commission a paper on this topic in June 2013.

This GAO recommendation remains open.

Recommendation 3

Better ensure that licensees are providing reasonable assurance that they will have the necessary funds and improve the consistency of information the agency collects by documenting procedures

describing the steps the staff should take in their reviews analyzing licensee documentation and verifying that the amount licensees report to NRC in Decommissioning Funding Status reports match the amount on their year-end bank statements.

Status:

The NRC identified the need for revising decommissioning funding assurance review guidance for the agency's financial analysis staff, delineated in Office of Nuclear Reactor Regulation Office Instruction LIC-205, "Procedures for NRC's Independent Analysis of Decommissioning Funding Assurance for Operating Nuclear Power Reactors," (LIC-205) and initiated the revision in late 2010. NRC staff is finalizing updates to LIC-205 that will more thoroughly document procedures used to verify decommissioning fund balances. The updated version of LIC-205 should be completed by June 2013.

This GAO recommendation remains open.

Recommendation 4

Better ensure that licensees are providing reasonable assurance that they will have the necessary funds and improve the consistency of information the agency collects by continuing the reviews of fund balances in a way that is most-efficient and effective for the agency.

Status:

At the time of the GAO audit completion, the NRC was considering discontinuing licensee site reviews due to budget and travel constraints; however, the NRC plans to continue reviewing fund balances reported by licensees against the records maintained by the fund trustees, whether at the licensee's site or another location. The NRC will also consider incorporating the reviews into other routine visits to licensee offices. The NRC anticipates that it will coordinate with licensees and the respective financial institutions, where the decommissioning trust fund records are kept, and will continue to review the fund balances in a manner that is most efficient for the NRC and the licensee.

The NRC considers this GAO recommendation to be closed.

Recommendation 5

Consider reviewing a sample of the licensees' investments to determine if licensees are complying with decommissioning investment standards and determine whether action should be taken to enforce these standards.

Status:

The NRC will evaluate whether additional information is needed to better understand the current methods used by licensees, investment managers, and trustees to assure compliance with the NRC's regulations. Based on that determination, the NRC will consider alternative methods for reviewing licensee compliance with the regulations. The NRC will make this determination following the completion of the staff's review of the 2013 decommissioning funding status reports.

This GAO recommendation remains open.

GAO 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: Natural 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 Chairman of the NRC informed Congress about the actions directly related to this issue (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12192A057). The status of the actions taken by the NRC in response to the GAO recommendation is provided below.

Recommendation

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

Status:

The NRC’s Office of Nuclear Regulatory Research is conducting 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 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 (ADAMS Accession No. ML12202B170).

In 2011, NRC Commissioner George Apostolakis led a risk management task force to develop a strategic vision and options for adopting a more comprehensive, holistic, risk-informed, performance-based regulatory approach for nuclear reactors, as well as for materials, waste, the fuel cycle, and transportation. This task force produced a report, NUREG-2150, “A Proposed Risk Management Regulatory Framework,” (ADAMS Accession No. ML12109A277), that provides recommendations on whether the NRC should make modifications to the regulatory framework. An interoffice working group has been created to identify options and make recommendations, including the potential development of a Commission policy statement. In developing the options, the staff will consider modifications to the regulatory framework that could be incorporated into important agency policy documents, such as the Strategic Plan. This group’s report will be provided six months after the staff requirements memorandum on the NRC’s Fukushima Near-Term Task Force Recommendation 1, which states that the agency should establish a logical, systematic, and coherent regulatory framework for adequate protection that appropriately balances defense-in-depth and risk considerations.

Since issuance of “Request for Information” letters on March 12, 2012, the NRC staff continued to address the seismic and flooding hazards at nuclear power plant sites through the implementation of Fukushima Near-Term Task Force Recommendations 2.1 and 2.3. The NRC staff worked with industry to develop multiple guidance documents and interim staff guidance documents for both

recommendations. As of November 2012, all plant “walk-down” inspections have been completed and reports are being reviewed by the NRC staff. The NRC staff expects to receive the first set of flood hazard reevaluation submittals in March 2013, and the seismic hazard reevaluation submittals are expected in September 2013. The NRC staff will review the reevaluation reports, including proposed interim actions, as part of the longer-term resolution of risks associated with natural hazards.

In addition, on January 29-31, 2013, the NRC hosted a multi-agency federal workshop on improving extreme flood event hazard assessment. This workshop was attended by specialists from several federal agencies, contractors, industry, academia, and other subject-matter experts. Specialists from several NRC offices developed the workshop together with their counterparts at the Department of Energy, the Federal Energy Regulatory Commission, the Army Corps of Engineers, the Bureau of Reclamation, and the U.S. Geological Survey. The workshop was part of an effort to inform future incorporation of flood event probabilities into a risk-informed approach for external hazards.

This GAO recommendation remains open.

GAO Report – Uranium Mining: Opportunities Exist to Improve Oversight of Financial Assurances
May 2012
(GAO-12-544)

The U.S. Government Accountability Office (GAO), in its report “Opportunities Exist to Improve Oversight of Financial Assurances”, made one recommendation to U.S. Department of the Interior and the U.S. Nuclear Regulatory Commission (NRC) to better coordinate their efforts when establishing financial assurances and to develop a consistent definition for abandoned mine sites. The status of the actions taken by the NRC in response to the GAO recommendation is provided below.

Recommendation

The Secretary of Interior and the Chairman of the NRC should enhance their coordination on financial assurances for in-situ recovery operations through the development of a memorandum of understanding that defines roles and promotes information sharing.

Status:

In November 2009, the NRC entered into a Memorandum of Understanding (MOU) with the Bureau of Land Management (BLM) that established an Executive Steering Committee to enhance coordination on financial assurances for in-situ recovery operations.

The Executive Steering Committee meets bi-annually, has its own charter, and is composed of representatives (upper management) from both the NRC and BLM.

During the July 2012 Executive Steering Committee meeting, the committee agreed that the existing MOU should be revised to include sections on financial surety and National Historic Preservation Act Section 106 activities relating to uranium recovery. The Committee also agreed that each agency would present at the next Executive Steering Committee meeting, scheduled for November 2012, what it does regarding financial surety and Section 106 activities on uranium recovery projects. During the summer and fall of 2012, revisions were made to the MOU, incorporating sections involving financial surety and Section 106 activities. The revisions have been agreed to in principle.

On November 5, 2012, an Executive Steering Committee meeting was held at BLM Headquarters in Washington, DC. During this meeting, the modifications to the MOU, incorporating financial surety and Section 106 activities, were reviewed and are pending final signature. In addition, the Executive Steering Committee Charter was finalized and brief presentations were made by each agency to describe how each functions with regard to uranium recovery activities.

The NRC also holds quarterly teleconferences with BLM offices in Wyoming, Montana, and South Dakota to discuss uranium recovery activities in those states.

This GAO recommendation remains open.

GAO Report – Organizational Transformation: Enterprise Architecture Value Needs to be Measured and Reported
September 2012
(GAO-12-791)

The U.S. Government Accountability Office (GAO), in its report “Organizational Transformation: Enterprise Architecture Value Needs to be Measured and Reported” made recommendations to several government entities, including the U.S. Nuclear Regulatory Commission (NRC), on measuring and reporting enterprise architecture value. The status of the actions taken by the NRC in response to the GAO recommendations is provided below.

Recommendation 1

The secretaries and agency heads of the Departments of Agriculture, the Air Force, the Army, Commerce, Defense, Education, Energy, Homeland Security, the Interior, Labor, the Navy, State, Transportation, the Treasury, and Veterans Affairs; the Attorney General; the Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, and Small Business Administration; the Nuclear Regulatory Commission and Social Security Administration; and the National Science Foundation and the Office of Personnel Management should ensure that an approach is fully established for measuring enterprise architecture outcomes, including a documented method (i.e., steps to be followed) and metrics that are measurable, meaningful, repeatable, consistent, actionable, and aligned with the agency's enterprise architecture's strategic goals and intended purpose.

Status:

Although the Office of Management and Budget recently issued enterprise architecture guidance to agencies, the Office of Management and Budget has not yet provided sufficient details on the method and metrics that could be used to measure architecture program outcomes. Once the Office of Management and Budget issues sufficient details on the method and metrics, the NRC will fully establish an approach for measuring enterprise architecture outcomes, including a documented method (i.e., steps to be followed) and metrics that are measurable, meaningful, repeatable, consistent, actionable, and aligned with the agency's enterprise architecture's strategic goals and intended purpose. The NRC anticipates the Office of Management and Budget guidance during FY 2013 and will incorporate the guidance in the NRC Information Technology governance activities.

This GAO recommendation remains open.

Recommendation 2

The secretaries and agency heads of the Departments of Agriculture, the Air Force, the Army, Commerce, Defense, Education, Energy, Homeland Security, the Interior, Labor, the Navy, State, Transportation, the Treasury, and Veterans Affairs; the Attorney General; the Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, and Small Business Administration; the Nuclear Regulatory Commission and Social Security Administration; and the National Science Foundation and the Office of Personnel Management should ensure that enterprise architecture outcomes and benefits are periodically measured and reported to top agency officials (i.e., executives with authority to commit resources or make changes to the program) and to the Office of Management and Budget.

Status:

As discussed under Recommendation 1, although the Office of Management and Budget recently issued enterprise architecture guidance to agencies, the Office of Management and Budget has not yet provided sufficient details on the method and metrics that could be used to measure architecture program outcomes. Once the Office of Management and Budget issues sufficient details on the method and metrics, the NRC will fully establish an approach for measuring enterprise architecture outcomes, including a documented method (i.e., steps to be followed) and metrics that are measurable, meaningful, repeatable, consistent, actionable, and aligned with the agency's enterprise architecture's strategic goals and intended purpose. The NRC anticipates the Office of management and Budget guidance during FY 2013 and will incorporate the guidance in the NRC Information Technology governance activities.

This GAO recommendation remains open.

**GAO Report – Spent Nuclear Fuel: Accumulating Quantities at Commercial Reactors
Present Storage and Other Challenges
Aug 15, 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” (GAO-12-797), 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 actions taken by the NRC in response to the GAO recommendation 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:

By June 30, 2013, the NRC staff will develop and implement a pilot program database to include non-classified information detailing key attributes of a document to identify location and points of contacts by June 30, 2013. The pilot program will focus on spent nuclear fuel studies but may include other classified documents. By January 10, 2014, the NRC staff will complete a review of the pilot program database and make recommendations for implementing procedures to identify and access the classified studies.

This GAO recommendation remains open.

**GAO Report – Nuclear Nonproliferation: Additional Actions Needed to Improve Security of
Radiological Sources at U.S. Medical Facilities
September 2012
(GAO-12-925)**

The U.S. Government Accountability Office (GAO), in its report “Additional Actions Needed to Improve Security of Radiological Sources at U.S. Medical Facilities” made four recommendations to the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE) regarding security at NRC and Agreement State licensed medical facilities. The status of the actions taken by the NRC in response to the GAO recommendations is provided below.

Recommendation 1

The GAO recommends that the Administrator of the National Nuclear Security Administration (NNSA), in consultation with the Chairman of the NRC and Agreement State officials, increase outreach efforts to promote awareness of and participation in the NNSA's security upgrade program. Special attention should be given to medical facilities in urban areas or in close proximity to urban areas that contain medical equipment with high-risk radiological sources.

Status:

The NRC has and will continue to support the NNSA's outreach activities to promote licensee awareness of and participation in the NNSA's security upgrade program within the limits of our authorities and available resources. The NRC, the NNSA, the Department of Homeland Security and the Federal Bureau of Investigation meet routinely to discuss the NNSA's activities regarding voluntary security upgrades at commercial facilities.

The NRC considers this GAO recommendation to be closed.

Recommendation 2

The GAO recommends that the Chairman of the NRC strengthen NRC security requirements by providing hospitals and medical facilities with specific measures they must take to develop and sustain a more effective security program, including specific direction on the use of cameras, alarms, and other relevant physical security measures.

Status:

While the NRC acknowledges that GAO favors more prescriptive security regulation, the NRC does not agree that the NRC's security requirements for risk-significant radioactive material need to be strengthened, nor with GAO's conclusion regarding the need for prescriptive security controls. The NRC's existing performance-based security program for licensees who possess risk-significant radioactive materials, including those at medical facilities, is effective and provides adequate protection. Performance-based regulation is a key principle of the NRC's regulatory approach that applies to virtually all NRC-regulated activities. A performance-based requirement establishes measurable performance standards, and provides appropriate flexibility to the regulated party as to the means of achieving the mandated outcomes. The NRC and the Agreement States verify licensee performance during the inspection process. Because of the wide variety of nearly 3,000 licensed facilities affected by these security requirements, prescribing specific security measures without regard to the type of facility and licensee operations may impose excessive and unnecessary requirements and burdens on licensees. In other cases, a prescriptive approach may

result in a level of protection that is too low. A “one-size-fits-all” prescriptive approach is neither practical nor desirable from a safety perspective. Security concerns such as those mentioned in the GAO report are effectively addressed through established NRC and Agreement State inspection and enforcement processes and are not indicative of a weakness in the regulations. Since issuance of GAO’s report, the NRC staff has worked with the Agreement States to pursue the examples of security issues documented in the report. The staff has concluded that three of the four examples were not compliance issues or security concerns. The appropriate Agreement State is pursuing whether the fourth example is a compliance issue.

The GAO report notes concerns that some of the licensee personnel with security responsibilities lack expertise in physical security, which may result in inconsistent application of security controls to their programs. In response to the recommendation, the NRC plans to develop and provide additional written guidance to instruct licensees on best practices, including specific guidance on the effective application of cameras, alarms, and other relevant physical security measures to consider in the implementation of their security programs. This “best practices” guidance document will be in addition to the implementing guidance document already developed to accompany the new final rule, 10 CFR Part 37, “Physical Protection of Byproduct Material.” The “best practices” guidance document is being developed in response to Recommendation 4 below.

The NRC considers this GAO recommendation to be closed.

Recommendation 3

The GAO recommends that the Chairman of the NRC ensure that NRC and Agreement State inspectors receive more comprehensive training to improve their security awareness and ability to conduct related security inspections.

Status:

The current training program provides effective classroom instruction on a performance-based methodology to evaluate and assess the adequacy of a physical protection system to protect against theft or sabotage of materials subject to the Increased Controls. This training, combined with on-the-job training, periodic refresher training, and as well as other requirements to be a qualified radioactive material safety inspector, prepares NRC and Agreement State inspectors to conduct security inspections. As part of the implementation of the final rule, 10 CFR Part 37, “Physical Protection of Byproduct Material,” NRC plans to review and revise the inspector qualification program for radioactive materials security inspections. In November 2012, a Part 37 Implementation Working Group was formed including representatives from across NRC and the Organization of Agreement States. This group is in the initial stages of updating training modules for inspectors to reflect the Part 37 rule and to include additional emphasis on best security practices, including specific guidance on the effective application of cameras, alarms, and other relevant physical security measures. The Working Group is planning to complete this effort by Fall 2013.

This GAO recommendation remains open.

Recommendation 4

The GAO recommends that the Chairman of the NRC supplement existing guidance for facility officials, including Radiation Safety Officers, who may be responsible for implementing the NRC’s

security controls, in how to adequately secure equipment containing high-risk radiological sources and conduct trustworthiness and reliability determinations.

Status:

The NRC must maintain independent, objective oversight of licensees and may not operate in a consultative role. However, the NRC has and will continue to provide guidance to licensees on how to comply with regulatory requirements. As discussed above in the NRC response to Recommendation 2, the NRC plans to develop an additional guidance document with specific emphasis on security best practices and effective application of security technology that licensees may consider in developing their security programs. This “best practices” guidance document will be in addition to the implementing guidance document already developed to accompany the new final rule, 10 CFR Part 37, “Physical Protection of Byproduct Material.” In November 2012, a Part 37 Implementation Working Group was formed including representatives from across NRC and the Organization of Agreement States. This group is in the initial stages of developing a security “best practice” guidance document and is planning to complete this document by Fall 2013.

This GAO recommendation remains open.