

# **Programmatic Assessment of Low-Level Radioactive Waste Program**

## **INTRODUCTION**

The U.S. Nuclear Regulatory Commission (NRC) has an established low-level radioactive waste (LLRW) regulatory program which provides for a stable, reliable, and adaptable regulatory framework for effective LLRW management, while maintaining safety, security, and protection of the environment. A regulatory program consists of a regulatory framework, licensing of facilities, and an inspection program. The NRC is principally focused on the regulatory framework for LLRW because Agreement States perform most of the licensing and oversight of LLRW. Agreement States use this regulatory framework as the basis for licensing and oversight.

In 2007, due to developments in the national program for LLRW disposal, as well as changes in the regulatory environment, the NRC's LLRW program faced new challenges and issues. New technical issues related to protection of public health, the environment, and security emerged. These challenges and issues included: 1) need for greater flexibility and reliability in LLRW disposal options; 2) increased use of onsite storage of Class B and Class C LLRW because of the potential closing of the Barnwell, South Carolina, disposal facility to out-of-compact waste generators; 3) the potential need to dispose of large quantities of power plant decommissioning waste, as well as depleted uranium (DU) from enrichment facilities; 4) increased safety concerns; 5) need for greater LLRW program resources than were available; 6) increased security concerns related to storing LLRW in general and sealed radioactive sources in particular; and 7) potential for generation of new waste streams (e.g., by the next generation of nuclear reactors and the potential reemergence of nuclear fuel reprocessing in the United States).

Based on these challenges and issues, the NRC conducted a strategic assessment (hereafter referred to as the 2007 assessment) of the NRC's regulatory program for LLRW. Results were published in late 2007 in SECY-07-0180, "Strategic Assessment of Low-Level Radioactive Waste Regulatory Program" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML071350291). The goal of the 2007 assessment was to identify and prioritize staff activities that: (1) ensure safe and secure LLRW disposal; (2) improve the effectiveness, efficiency, and adaptability of the NRC's LLRW regulatory program; and (3) ensure regulatory stability and predictability, while allowing flexibility in disposal options.

## **RESULTS OF THE 2007 ASSESSMENT OF NRC'S LLRW REGULATORY PROGRAM**

Based on extensive stakeholder input, the NRC developed a variety of activities to include in the 2007 assessment and evaluated them based on the overall strategic objectives for ensuring safety, security, and other factors. A list of 20 activities responsive to identified programmatic needs was developed. These activities were assigned priorities of high, medium, or low and ranged from narrowly focused activities such as updating LLRW storage guidance to broader activities such as suggesting legislative changes to Congress to improve the LLRW national program.

Seven tasks were designated as high priority, six tasks as medium priority, and seven tasks as low priority. Table 1 lists all the tasks, as well as the priority.

TABLE 1: 2007 Assessment's LLRW Program Tasks and Priorities

Task number	Task Description	Priority
1	Review and update guidance on extended storage of LLRW for materials and fuel cycle licensees and review industry guidance for reactors.	High
2	Develop guidance on Title 10 of the <i>Code of Federal Regulations</i> § 20.2002 Alternate Disposal Requests.	High
3	Determine if disposal of large quantities of DU for uranium enrichment warranted changing the waste classification tables.	High
4	Update Branch Technical Position (BTP) on Concentration Averaging and Encapsulation.	High
5	Develop internal procedures and guidance document for reviewing waste import and export applications submitted under 10 CFR Part 110.	High
6	Develop guidance on alternate waste classification (10 CFR § 61.58).	High
7	Perform scoping study of the need to revise/expand byproduct material financial assurance to account for life cycle.	High
8	Develop licensing criteria for Greater-Than-Class C (GTCC) disposal facility.	Medium
9	Consolidate LLRW guidance.	Medium
10	Coordinate with other agencies on consistency in regulating low activity waste disposal.	Medium
11	Develop guidance that summarizes disposition options for low-end materials and waste.	Medium
12	Identify new waste streams.	Medium
13	Develop information notice on waste minimization.	Medium
14	Evaluate potential changes to LLRW regulatory program as a result of severe curtailment of disposal capacity.	Low
15	Promulgate rule for disposal of low-activity waste (LAW).	Low
16	Identify and evaluate potential legislative changes.	Low
17	Implement major revisions to 10 CFR Part 61.	Low
18	Develop waste acceptance criteria for LLRW disposal in uranium mill tailings impoundments.	Low
19	Examine need for guidance on defining when radioactive material becomes LLRW.	Low

Task number	Task Description	Priority
20	Develop and implement national waste tracking system.	Low

### **STATUS OF THE 2007 ASSESSMENT OF NRC'S LLRW REGULATORY PROGRAM**

Since 2007, the NRC has addressed several tasks and adjusted the LLRW regulatory framework. The NRC first focused on the high priority tasks. Work to begin high priority Task 2 was delayed due to resource constraints and focus on other high priority tasks. Task 3 was put on hold due to Commission direction in Revised Staff Requirements Memorandum (SRM)-SECY-13-0001 – Staff Recommendations for Improving the Integration of the Ongoing 10 CFR Part 61 Rulemaking Initiatives (ADAMS Accession No. ML13085A318). A few medium priority tasks were worked on because they were related to other LLRW activities. To date, the NRC has completed six tasks.

#### Completed Activities

Task 1: “Review and update guidance on extended storage of LLRW for materials and fuel cycle licensees and review industry guidance for reactors.” The uncertainty in the availability of access to LLRW disposal facilities was identified as an issue facing the LLRW community. Specifically, in 2008 it was anticipated that licensees and generators in 36 states would not be able to dispose of Class B and C LLRW based on the closure of the disposal facility in Barnwell, South Carolina, to states outside of the Southeast Compact. As a result, these LLRW licensees and generators would likely need to store, on a long-term basis, a portion of their LLRW. In 2008 and 2011, staff prepared Regulatory Issue Summaries (RIS) clarifying and updating positions on extended LLRW storage. In 2012, with the help of a stakeholder working group, the NRC affirmed the adequacy of the extended storage guidance and presented a significant amount of the storage guidance on the NRC webpage to assist licensees and generators in their efforts to safely store LLRW. Task 1 is considered complete by the NRC with the issuance of RIS 2008-12, “Considerations for Extended Interim Storage of Low-Level Radioactive Waste by Fuel Cycle and Materials Licensees,” (ADAMS Accession No. ML073330725) and RIS 2011-09, “Available Resources Associated with Extended Storage of Low-Level Radioactive Waste,” (ADAMS Accession No. ML111520042).

Task 4: “Update Branch Technical Position (BTP) on Concentration Averaging and Encapsulation.” Classification of LLRW is performed in accordance with the waste classification tables in 10 CFR § 61.55. The regulations in 10 CFR Part 61 allow the averaging of radionuclide concentrations in determining the waste classification. The NRC has completed its efforts to revise and update the document, clarifying in several areas the underlying basis in the BTP and revising specific averaging guidance for licensees. This task is considered complete with the issuance of the updated Concentration Averaging and Encapsulation BTP in 2015 (ADAMS Accession No. ML12254B065 (Volume 1) and ML12326A611 (Volume 2)).

Task 5: “Develop internal procedures and guidance document for reviewing waste import and export applications submitted under 10 CFR Part 110.” As background, the NRC’s Office of International Programs (OIP) receives several LLRW-related import/export license applications

per year and periodically requests the assistance of the Low-Level Waste Branch staff in the Office of Nuclear Material Safety and Safeguards in reviewing the applications. To ensure consistency in their reviews, the staff developed an internal procedure that documents the protocol for initiating and completing the review. This procedure discusses the Low-Level Waste Branch staff's role and responsibilities, process for vetting and resolving complex issues, and the technical and regulatory analyses that may be necessary to respond to an OIP request. Task 5 is considered complete with the staff's issuance of the procedure on April 21, 2016 (ADAMS at Accession No. ML16063A260). The staff made this document publicly available and does not see the need to issue a separate guidance document.

Task 7: "Perform scoping study of the need to revise/expand byproduct material financial assurance to account for life-cycle." After completing other high priority tasks, in 2014 the NRC began to work on the high priority task of performing a scoping study to determine whether additional financial planning requirements for decommissioning and end-of-life management for some radioactive byproduct material, particularly radioactive sealed sources (RSS), are needed. The NRC's regulations in 10 CFR § 30.35 require a fixed dollar amount of financial assurance or a decommissioning funding plan for licensees possessing byproduct material with a half-life greater than 120 days and at activity levels above certain thresholds. However, the thresholds for sealed byproduct material are such that many licensees possessing Category 1 and 2 byproduct material RSSs are not required to provide financial assurance for decommissioning. The costs associated with end-of-life disposition of RSSs may include interim storage, packaging and conditioning, transportation, and costs associated with the selected disposition option. If a licensee has not anticipated and planned for these costs, they may represent a significant financial burden. Due to the complexity of this issue, the NRC reached out to a broad range of stakeholders in conducting the financial scoping study, which is documented in SECY-16-0046, "Results of the Byproduct Material Financial Scoping Study" (ADAMS Accession No. ML16068A202), dated April 7, 2016. Based on the results of the scoping study, the NRC staff recommended that the financial assurance requirements in 10 CFR § 30.35 be expanded to include all byproduct material Category 1 and 2 RSSs tracked in the National Source Tracking System. The NRC staff has separately submitted a rulemaking plan SECY paper (ML16200A185) to further evaluate potential changes to 10 CFR § 30.35, as required by SRM-SECY-15-0129, "Commission Involvement in Early Stages of Rulemaking," (ADAMS Accession No. ML16034A441). If the Commission approves initiation of this rulemaking, the staff will add the rule to the Common Prioritization of Rulemaking during the next budget formulation cycle. The NRC staff considers the action with respect to Task 7 complete.

Task 12: "Identify new waste streams." One of the medium priority tasks of the 2007 assessment was to identify potential new waste streams that have different radionuclides and/or radionuclide concentrations that have not been addressed or accounted for in existing regulations. Established almost 30 years ago, NRC's disposal regulations in 10 CFR Part 61 provide a strong foundation to the LLRW regulatory framework. Since promulgation, these regulations have provided procedures and criteria that ensure the safe and secure disposal of LLRW. However, recent developments (e.g., disposal of DU in large quantities and anticipated new waste streams associated with medical isotope production) suggest changes to 10 CFR Part 61 are necessary to address potential new waste streams. The Commission has provided direction to revise 10 CFR Part 61 to include flexibility to enable licensees to use either site-specific waste acceptance criteria based on a site's performance and intruder assessments or the waste classification tables. On March 26, 2015, the NRC published a proposed rule to

amend 10 CFR Part 61. These amendments would ensure that LLRW streams that are significantly different from those considered during the development of the current regulations (i.e., DU and other unanalyzed waste streams) can be disposed of safely and meet the performance objectives for land disposal of LLRW. This task is considered complete since the proposed changes to 10 CFR Part 61 (i.e., Site-Specific Analysis Rulemaking) are broad enough to include potential new waste streams that may be developed in the future.

Task 13: “Develop information notice on waste minimization.” Another medium priority task was to develop and issue an information notice that describes techniques and methods that waste generators could use to minimize the volume of waste that they generate. This medium priority task was completed before a few of the high priority tasks because there were concerns that the process of blending was in violation of the volume reduction policy statement. The NRC updated the policy “to acknowledge that factors other than volume reduction may be considered by licensees to determine how best to manage their LLRW” so that blending could be used as appropriate. On May 1, 2012, the NRC issued its “Low-Level Radioactive Waste Management and Volume Reduction,” policy statement that addressed this issue and no further work is anticipated by the NRC. This policy statement is available at the ADAMS Accession No. ML15023A098.

#### **UPDATED PRIORITIZED PROGRAMMATIC ASSESSMENT OF NRC’S LLRW REGULATORY PROGRAM**

The national LLRW program continues to evolve. To set the direction for the NRC LLRW regulatory program for the next several years, the NRC conducted a programmatic assessment of the subject program. The objective of this programmatic assessment was to conduct a review of the 2007 assessment to reassess the future high priority activities given the current LLRW landscape and to identify what changes, if any, should be made to the current LLRW program’s regulatory framework, as well as specific activities that NRC staff may undertake to facilitate such changes.

A review of the 2007 assessment was the first task in the update process. The staff then considered the comments and suggestions from stakeholder feedback. Specifically, the NRC staff requested comments at a public workshop in Phoenix, Arizona, on March 7, 2014. Additionally, the NRC requested comments by issuing a *Federal Register* notice on May 15, 2014 (79 FR 27772), with a 60-day public comment period. The NRC also held webinars on June 17, 2014, and July 8, 2014, requesting comments on the proposed update to the 2007 assessment. The initial comment period was scheduled to close on July 14, 2014. However, on July 9, 2014 (79 FR 38796), the NRC extended the comment period to September 15, 2014. The NRC staff sought comments on developments that would affect the LLRW regulatory program over the next several years and that would affect licensees and sited States, as well as actions that the NRC could take to ensure safety, security, and the protection of the environment. On March 13, 2015, the NRC published a second *Federal Register* notice (80 FR 13451) with a prioritized list of activities and allowed 30 days for public comments on the proposed list.

The NRC received 15 comment submissions to the *Federal Register* notices and also received numerous comments as the result of the public meeting and webinars. The comment submissions in response to the *Federal Register* notices are available on the Federal

rulemaking Web site at <http://www.regulations.gov> under Docket ID NRC-2014-0080. The comments pertained to the management of LAW, waste classification, clearance, disposal capacity, new waste streams, disused sealed sources, and waste attribution. These comments provided stakeholder insights on the state of the LLRW program nationally.

Based on stakeholder feedback, the update process resulted in deleting some of the remaining activities; and, adding, combining, and reprioritizing other activities. The tasks were prioritized based on the objective of the programmatic assessment (i.e., ensure a stable, reliable, and adaptable regulatory framework for effective LLRW management).

### Current Ongoing Activities

The NRC staff continue to work on completing the high priority activities. One high priority task (Task 2) was to address the challenge of alternate disposal of LAW, per 10 CFR § 20.2002, in non-traditional LLRW facilities such as Resource Conservation and Recovery Act (RCRA) facilities, as well as the regulatory review and approval needed for such disposal. Based on stakeholder input with respect to the 2007 assessment, it appeared that the NRC's process for authorizing these disposals was not entirely consistent in the past and needed to be clarified during the development of new regulatory guidance. In the 2007 assessment, this task included actions to "(a) Develop and implement an internal procedure for reviewing and processing 10 CFR § 20.2002 requests (which allow for case-by-case NRC approvals for disposals in a facility other than a conventional LLRW facility) [and] (b) Develop a standard review plan for these proposed disposals for use by licensees." In 2009, the NRC developed interim staff guidance to describe the process for reviewing, approving, and documenting the results of the staff's review of alternative disposal requests of LAW received from licensees and license applicants to improve the alternate disposal process. The staff planned to use this interim staff guidance and finalize it after it had been used for several more requests. However, based on stakeholder feedback, the NRC plans to issue a draft version for public comment, either as an internal procedure or other public document. A final version, that incorporates applicable public comments, is currently planned for completion in October 2017.

Another ongoing activity is the staff's efforts regarding GTCC waste disposal (Task 8). The Low-Level Radioactive Waste Policy Amendments Act of 1985 (Amendments Act) states that radioactive waste, "result[ing] from activities licensed by the [NRC] . . . shall be disposed of in a facility licensed by the [NRC]." The Department of Energy was assigned responsibility for disposal of GTCC waste. In 1989, the NRC promulgated a regulation, 10 CFR § 61.55(a)(2)(iv), specifying that GTCC waste be disposed of in a geologic repository licensed by the NRC unless the Commission approves an alternative proposal. On January 30, 2015, the Texas Commission on Environmental Quality sent a letter to the NRC with questions concerning the State's authority to license a disposal cell for GTCC, GTCC-like, and transuranic waste. The staff conducted an analysis of the questions Texas posed and developed three options, outlined in SECY-15-0094, "Historical and Current Issues Related to Disposal of Greater-Than-Class C Low-Level Radioactive Waste" (ADAMS Accession No. ML15162A849). On December 22, 2015, the Commission in SRM-SECY-15-0094 (ADAMS Accession No. ML15356A623) directed the staff to draft a response to Texas' inquiry; prepare a regulatory basis for the disposal of GTCC and transuranic waste within 6 months of the completion of the ongoing 10 CFR Part 61 rulemaking; conduct public workshops during the development of the regulatory basis to receive

input from stakeholders; and address transuranic waste in 10 CFR Part 61 (in the current 10 CFR Part 61, certain LLRW with transuranic nuclides was found to be suitable for a 10 CFR Part 61 disposal facility as stated in 10 CFR § 61.55; however, the current definition of LLRW explicitly excludes transuranic waste). On March 9, 2016, the NRC sent a response to Texas regarding its inquiry describing the development of the regulatory basis. The response noted that the regulatory basis for a possible rulemaking to address the disposal requirements for GTCC waste would analyze whether, in accordance with Section 274c. (4) of the Atomic Energy Act, disposal of GTCC waste presents a hazard such that the NRC should retain authority over its disposal. The NRC will inform Texas of its final determination regarding Texas' jurisdictional questions.

Three tasks from the 2007 assessment are included in this assessment. Task 9, "Consolidate LLRW guidance," Task 19, "Examine need for guidance on defining when radioactive material becomes LLRW," and Task 20, "Develop and implement national waste tracking system," are included as medium or low priority tasks that will only be completed if resources become available. Regarding Task 20, which involves rulemaking activities, the NRC staff would first prepare a rulemaking plan as required by SRM-SECY-15-0129, which provides for Commission direction in the early stages of rulemaking. The 2007 assessment provides supporting background information on these tasks.

#### Deleted Tasks

Several items included in the 2007 assessment were deleted from the prioritized task list associated with the current programmatic assessment. These items were:

- Task 14: "Evaluate potential changes to LLRW regulatory program as a result of severe curtailment of disposal capacity." This item was deleted because the anticipated curtailment of disposal capacity did not occur and is not expected to occur in the near-term.
- Task 16: "Identify and evaluate potential legislative changes." As with Task 14, this item was deleted because the anticipated curtailment of disposal capacity, which was the driver for this task in the 2007 assessment, did not occur and is not expected to occur in the near-term.
- Task 18: "Develop waste acceptance criteria for LLRW disposal in uranium mill tailings impoundments." The NRC anticipated that some LLRW would need to be disposed in uranium mill tailing impoundments due to the diminishing capacity at LLRW disposal sites. This item was deleted because the anticipated curtailment of disposal capacity did not occur and is not expected to occur in the near-term.

#### Combined Tasks

Similar tasks were grouped together, specifically under the topics related to the revision to 10 CFR Part 61 and LAW. Several tasks in the 2007 assessment were related to the proposed revision of 10 CFR Part 61 including, determining if disposal of large quantities of DU would change the waste classification tables (Task 3); developing guidance on alternate waste classification (Task 6); and implementing major revisions to 10 CFR Part 61 (Task 17). Based on the Commission's direction, the NRC's efforts related to revision of 10 CFR Part 61 have

been limited to specifying a requirement for a site-specific analysis and associated technical requirements for unique waste streams, including the disposal of significant quantities of DU. These tasks have been combined into two tasks, "Complete and Implement Site-Specific Analysis Rulemaking," and "Address update to the 10 CFR Part 61 Waste Classification Tables." Once the Site-Specific Analysis Rulemaking is complete, in accordance with Revised SRM-SECY-13-0001, "Staff Recommendations for Improving the Integration of the Ongoing 10 CFR Part 61 Rulemaking Initiatives" (ADAMS Accession No. ML13085A318), the NRC will communicate further with the Commission on the need for a second rulemaking to revise the waste classification tables.

Several tasks in the 2007 assessment were related to LAW, including coordinating with other agencies on consistency in regulating LAW disposal (Task 10), developing guidance that summarizes disposition options for low-end materials and waste (Task 11), and promulgating a rule for disposal of LAW (Task 15). The NRC has combined these tasks into one, titled, "Perform LAW Scoping Study." The study will consider the divergent stakeholder comments submitted as part of this programmatic assessment; lessons learned from the below regulatory concern policy statements published in the *Federal Register* on July 3, 1990 (55 FR 27522), and August 29, 1986 (51 FR 30839); lessons learned from the Commission's 2005 decision not to publish a proposed rule (the "Clearance" rule) on radiological criteria for controlling the disposition of solid materials; learnings from other countries with respect to LAW disposal; and other factors to inform the NRC staff's recommendation for addressing LAW. The survey scope will also include work with other government agencies to evaluate the impact of large quantities of LAW that would result from cleanup if a radiological dispersal device or similar device is used in the United States, and ensure LAW resulting from such devices has a disposal pathway. In addition, as part of the scoping study, the NRC would evaluate regulatory options that would define the conditions under which LAW, including mixed waste, could be disposed of in RCRA hazardous waste facilities. As the staff's work progresses, policy issues identified will be raised to the Commission. While stakeholders urged the NRC to make this task a high priority as more nuclear power plant decommissioning activities will produce large amounts of LAW, at this time, the NRC staff determined that a medium priority is appropriate due to the lack of near-term problems with disposing of this material.

#### Added Tasks

Based on stakeholder comments, new tasks were added. A new task has been added to the list, "Update NUREG/BR-0204, Rev. 2 (July 1998), 'Instructions for Completing NRC's Uniform Low-Level Radioactive Waste Manifest.'" NUREG/BR-0204 provides instructions for completing NRC Forms 540/540A, 541/541A, and 542/542A. These forms are collectively known as the uniform manifest. Stakeholders and the NRC have identified items on the forms that need to be revised. For example, instructions for manifest reporting of the activities of hydrogen-3, carbon-14, technetium-99, and iodine-129, when their activities are below the lower limit of detection, will be clarified. Additionally, based on work on the 10 CFR Part 61 rulemaking, the NRC staff also identified needed revisions to the forms.

Another task has been added to the list, "Implement the Updated Concentration Averaging and Encapsulation Branch Technical Position." As noted earlier, Task 4 from the 2007 assessment, "Update Branch Technical Position (BTP) on Concentration Averaging and Encapsulation," was completed with the issuance of the BTP in February 2015. However, the staff has now

redirected resources to implement the BTP, including evaluating the distinction between contaminated materials and contaminated trash which might need further clarification.

Table 2 identifies the LLRW-related tasks that the NRC staff has determined should receive priority consideration moving forward.

Table 2: Updated Prioritized Tasks from the LLRW Programmatic Assessment

Task	Description	Priority
1. Complete and Implement Site-Specific Analysis Rulemaking	This task includes revising 10 CFR Part 61 (SECY-16-0106), implementing those revisions, as approved by the Commission, and developing guidance that describes acceptable methods to meet the revised regulations in 10 CFR Part 61. This task is currently ongoing.	High
2. Address update to the 10 CFR Part 61 Waste Classification Tables	After the rulemaking initiative for Task 1 is complete, the staff should provide a Commissioners Assistants (CA) note on the second rulemaking effort for the waste classification tables. The CA note should outline the objectives and timeline for developing the regulatory basis for this second rulemaking, in consideration of the outcome of the near-term limited rulemaking that will precede it. The CA note should identify the specific comments that have been received on the need for a second rulemaking, and clearly articulate the basis in accepting or dismissing those comments. This task is required by SRM-SECY-13-0001, "Staff Recommendations for Improving the Integration of the Ongoing 10 CFR Part 61 Rulemaking Initiatives" (ADAMS Accession No. ML13085A318).	High
3. Implement the Updated Concentration Averaging and Encapsulation BTP	The NRC is implementing the recently issued updated BTP which was a task in the 2007 assessment. Implementation will include evaluating the distinction between contaminated materials and contaminated trash, which might need further clarification. This task is currently ongoing.	High
4. Prepare a regulatory basis and conduct potential rulemaking for GTCC and transuranic waste disposal	This task, as directed in SRM-SECY-15-0094, includes preparing a regulatory basis for the disposal of GTCC and transuranic waste within 6 months of the completion of the ongoing 10 CFR Part 61 rulemaking; conducting public workshops during the development of the regulatory basis to receive input from stakeholders; addressing transuranic waste in 10 CFR Part 61, and conducting possible rulemaking to address GTCC and transuranic waste disposal. Staff will prepare an information paper for the Commission with the results of the regulatory basis. This task is currently ongoing.	High

Task	Description	Priority
5. Finalize internal procedure/Standard Review Plan for 10 CFR § 20.2002 requests to improve alternate disposal process	As a task originally in the 2007 assessment, to improve consistency and transparency, the NRC is finalizing implementation guidance for 10 CFR § 20.2002, "Method for obtaining approval of proposed disposal procedures." This task is currently ongoing.	High
6. Update NUREG/BR-0204, Rev. 2 (July 1998), "Instructions for Completing NRC's Uniform Low-Level Radioactive Waste Manifest"	NUREG/BR-0204 provides instructions for completing the NRC Forms 540/540A, 541/541A, and 542/542A. These forms are collectively known as the uniform manifest. Stakeholders and the NRC have identified items on the forms that should/need to be revised. Additionally, from work on the 10 CFR Part 61 rulemaking, the staff identified needed revisions to the forms. This task is currently ongoing.	High
7. Perform LAW Scoping Study	This task combines several tasks originally in the 2007 assessment and includes coordinating with other agencies on consistency in regulating LAW and determining the impact of LAW disposal from radiological dispersal devices, as well as developing regulatory options that would define the conditions under which LAW, including mixed waste, could be disposed of in RCRA Subtitle C hazardous waste facilities. As the staff's work progresses, policy issues identified will be raised to the Commission.	Medium
8. Update and consolidate LLRW guidance into one NUREG	This task was originally in the 2007 assessment and would be similar to the guidance consolidation that was conducted for the materials licensing program (resulting in NUREG-1556, "Consolidated Guidance About Materials Licenses") and the decommissioning program (resulting in NUREG-1757, "Consolidated Decommissioning Guidance").	Medium
9. Examine the need for guidance on defining when radioactive material becomes LLRW	This task was originally in the 2007 assessment and will include determining whether a need exists for the NRC to provide guidance to licensees on when radioactive material becomes LLRW. Radioactive material that is LLRW can be subject to measures, such as storage guidance and/or financial assurance provisions, that differ from those for radioactive materials for which there is an intended use.	Low

Task	Description	Priority
10. Develop and implement the national waste tracking system	This task was originally in the 2007 assessment and it was added at that time to respond to a Government Accountability Office recommendation. This task would include promulgating a new regulation. Prior to implementing rulemaking, the NRC staff would first prepare a rulemaking plan as required by SRM-SECY-15-0129 which provides for Commission direction in the early stages of rulemaking. The new regulation would identify the data necessary to track the origin, management, and disposition of all LLRW, and would require the promulgation of a compatible State regulation by all Agreement States with licensees that produce LLRW. These regulations would also require that licensees provide necessary information to regulatory authorities on a regular, prescribed basis.	Low

## CONCLUSION

In late 2007, the NRC published an assessment of the agency's LLRW program with the objective of providing a stable, reliable, and adaptable regulatory framework for effective LLRW management, while maintaining safety, security, and protection of the environment. The 2007 assessment identified and prioritized those activities that could contribute to achieving the NRC's LLRW program objectives. Since 2007, the NRC has completed, and continued to work on, several high priority activities identified in the 2007 assessment. In 2014, the NRC began an updated programmatic assessment which included reviewing the 2007 assessment and soliciting stakeholder inputs. Similar to the 2007 assessment process, the new assessment establishes the direction for the LLRW program, ensuring that the NRC accomplishes its mission of regulating LLRW by focusing on the right activities with the right number of resources.