

FINAL SUPPORTING STATEMENT
FOR
NRC FORMS 542 AND 542A
UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
INDEX AND REGIONAL COMPACT TABULATION AND CONTINUATION PAGE

(3150-0165)

EXTENSION

Description of the Information Collection

The Nuclear Regulatory Commission (NRC) regulations in Title 10 of the Code of Federal Regulations (10 CFR) 20.2006, "Transfer for Disposal and Manifest" and 10 CFR Part 20, Appendix G, "Requirements for Transfers of Low-Level Radioactive Waste (LLRW) Intended for Disposal at Licensed Land Disposal Facilities and Manifests" established requirements for a nationwide system to ensure the safe and efficient transportation and disposal of LLRW. The Uniform LLRW Manifest system is implemented by utilization of specific NRC Forms to document the information required by 10 CFR 20.2006 and 10 CFR Part 20, Appendix G. The NRC Forms 542/542A, Uniform LLRW Manifest Index and Regional Compact Tabulation and Continuation Page," combined with NRC Forms 540/540A, "Uniform LLRW Manifest (Shipping Paper) And Continuation Page" and NRC Forms 541/541A, "Uniform LLRW Manifest Container and Waste Description and Continuation Page," are collectively referred to as the Uniform LLRW Manifest Forms. The forms were originally developed by the NRC at the request of LLRW industry groups, and Federal and State agencies. These forms assist in providing a standardized nationwide framework for collecting and transmitting LLRW related information from generation to disposal. The NUREG/BR-0204, Rev. 3, contains instructions for completing NRC Uniform LLRW Manifest Forms

The NRC Forms 542 and 542A or Agreement State equivalent forms are used on a nationwide basis to reflect the minimum information for a LLRW shipment as required by Federal and State reporting requirements for the safe transportation and disposal of LLRW. These forms are completed by waste processors and waste collectors of LLRW that are shipping LLRW received from various waste generators for ultimate disposal at a licensed LLRW facility. The NRC Forms 542 and 542A are used to attribute LLRW to the original waste generator for regional waste compact tabulation in accordance with the LLRW Policy Amendments Act of 1985. This information includes generator identification number, generator's name, phone number, address, manifest number, and description of the waste.

The Uniform LLRW Manifest Forms 542/542A are not required to physically accompany the shipment. Upon agreement between the shipper and consignee, NRC Form 542/542A are 1) mailed or electronically transferred to the intended consignee prior to the shipment arriving at the consignee or 2) delivered with the waste to the consignee. The use of either method is acceptable.

The NRC does not collect or retain data on the manifest forms, and the forms are not sent to or received by the NRC because the NRC has no operating LLRW disposal facilities under its regulatory authority. However, LLRW is generated and shipped from all States. Because of the NRC's national oversight responsibilities for the safety and security of LLRW, the agency is

required to establish requirements for the national regulation of LLRW disposal. As such, the establishment of the Uniform LLRW Manifest Forms is a part of the NRC's oversight responsibilities.

Some States have entered into Agreements with the NRC, which allows the NRC to relinquish its authority for LLRW disposal and for States to assume this authority from the NRC. In order for a State to assume authority from the NRC, it must be adequate to protect public health and safety and be compatible with NRC's regulatory programs. These States are referred to as "Agreement States." Agreement States, where applicable, use the information found on the Uniform Manifest Forms to determine whether LLRW shipments are suitable for disposal at their respective LLRW disposal facilities.

Agreement States are not required to adopt the NRC Uniform LLRW Manifest Forms. Rather, Agreement States are required to adopt the NRC Uniform LLRW Manifest requirements in 10 CFR 20.2006 and 10 CFR Part 20, Appendix G, as a matter of compatibility with NRC's regulatory programs. These NRC regulations should be adopted by Agreement States in an essentially identical manner to ensure adequate protection and compatible regulation of LLRW disposal on a nationwide basis. These concepts are reflected in 10 CFR Part 20, Appendix G, which provides:

NRC Forms 540, 540A, 541, 541A, 542, and 542A are official NRC Forms referenced in this appendix. Licensees need not use originals of these NRC Forms as long as any substitute forms are equivalent to the original documentation in respect to content, clarity, size, and location of information. Upon agreement between the shipper and consignee, NRC Forms 541 (and 541A) and NRC Forms 542 (and 542A) may be completed, transmitted, and stored in electronic media. The electronic media must have the capability for producing legible, accurate, and complete records in the format of the uniform manifest.

A. JUSTIFICATION

1. Need For and Practical Utility of the Collection of Information

To meet existing regulations, each shipment of LLRW, either directly or indirectly goes (e.g., through a waste processor or waste collector), to a licensed LLRW disposal facility that is accompanied by a waste manifest that describes the shipment contents as required in 10 CFR 20.2006, 10 CFR Part 20, Appendix G and the Department of Transportation (DOT) regulations in 49 CFR Part 172.

Presently, there are four operating LLRW disposal facilities in the United States. They are all located in the Agreement States. They are located in Barnwell, South Carolina; Clive, Utah; Hanford, Washington, and Andrews, Texas. These LLRW disposal facilities are licensed and regulated under the Agreement State regulations that are compatible with NRC waste disposal regulations in 10 CFR Part 61.

The Uniform LLRW Manifest Forms establish a clear chain of custody for LLRW

from generation to disposal of LLRW shipments, it provides a detailed record of the waste's characteristics, quantity, and the movement of the waste from generation through the disposal process. NRC Form 542 contains information that is used to attribute the waste to the original generator for regional waste compact tabulation and information needed to satisfy the waste tracking requirements of the NRC in 10 CFR 20.2006, and 10 CFR Part 20, Appendix G.

2. Agency Use of Information

The NRC Forms 542 and 542A and associated forms facilitate State and Federal collaboration in the management of LLRW and helps to streamline the process of transporting waste between States. The information on NRC Forms 542 and 542A also ensures that States and LLRW Regional Compacts know the original generators of LLRW, as authorized by the LLRW Policy Amendments Act of 1985, so that the waste is disposed of in the appropriate disposal facility.

3. Reduction of Burden Through Information Technology

10 CFR Part 20, Appendix G allows licensees to use substitute forms provided that they are equivalent to the original NRC Forms 542 and 542A documentation with respect to content, clarity, size, and location of information. Upon agreement between the shipper and consignee, the forms may be completed, transmitted, and stored in electronic media. The electronic media must have the capability for producing legible, accurate, and complete records in the format of the uniform manifest. The Uniform LLRW Manifest Forms 542/542A are not required to physically accompany the shipment.

Licensees can use software packages from several commercial vendors to generate NRC Form 542/542A or equivalent Agreement State forms electronically. The electronic facsimiles of the forms must be equivalent to the original documentation in respect to content, clarity, size, and location of information, include the OMB clearance number, and Paperwork Reduction Act statement

4. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. There is no duplication of requirements.

5. Effort to Reduce Small Business Burden

The required information is necessary from all waste collectors and waste processors of LLRW pursuant 10 CFR 20.2006, and 10 CFR Part 20, Appendix G. To the extent that small entities may make fewer waste shipments than larger entities, fewer manifests would be required of small entities, and their burden would be proportionately less.

6. Consequences to Federal Program or Policy Activities If the Collection Is Not

Conducted or Is Conducted Less Frequently

Several public health and safety concerns arose in the past that necessitated the creation of a standardized nationwide framework for collecting and transmitting LLRW related information from generation to disposal. Some of the consequences of not collecting this information included: 1. The inability of State and Federal agencies to properly respond to transportation accidents involving LLRW because they had no information on the physical, chemical, and radiological characteristics of the nuclear material in the shipment, and 2. The inability of LLRW disposal site operators to return unacceptable waste packages, e.g., waste packaged in leaking cardboard boxes, to the originator because this information was not available. In addition, the NRC Form 542/542A serves as a manifest index and regional compact tabulation, ensuring that each LLRW shipment can be linked to the original generator and is disposed of in the appropriate Regional LLRW Compact facility in accordance with the LLRW Policy Amendments Act of 1985.

7. Circumstances Which Justify Variation from OMB Guidelines

There are no variations from OMB guidelines.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published in the Federal Register on December 10, 2025, 90 FR 57223. The NRC staff solicited feedback by email on this information collection from the four Agreement State Regulatory Programs that currently have operating LLRW disposal sites. The Agreement States contacted included South Carolina, Texas, Utah, and Washington. No comments were received through the Federal Register or public consultation.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of the Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a), "Agency records exempt from public disclosure," and 10 CFR 2.390(b), "Public inspections, exemptions, requests for withholding." However, no information normally considered confidential or proprietary is requested.

11. Justification for Sensitive Questions

This information collection does not involve sensitive questions.

12. Estimated Burden and Burden Hour Cost

The NRC staff estimates that 623 NRC Forms 542/542A (or equivalent Agreement State forms) will be processed annually by 71 NRC and Agreement States licensees. Only waste collectors and waste processors complete this form, and most use the Agreement State equivalent versions of the NRC form.

It is assumed that all waste collection and waste processor shippers prepare the manifests electronically. Therefore, the average burden to complete the form is estimated to be 0.75 staff-hours/form. The total industry burden for completion of the form is estimated at 467 staff-hours annually (623 forms x 0.75 staff-hours/form) for reporting. The total cost is estimated to be \$148,039 (467 hours x \$317 per staff-hour).

The \$317 staff-hour rate used in the burden estimates is based on the NRC's fee for hourly rates as noted in 10 CFR 170.20, "Average cost per professional staff-hour." For more information on the basis of this rate, see the Revision of Fee Schedules; Fee Recovery for Fiscal Year 2024 (89 FR 51789, June 20, 2024).

13. Estimate of Other Additional Costs

There are no other additional costs.

14. Estimated Annualized Cost to the Federal Government

There are no annual printing and distribution costs to the Federal Government as the manifest forms are available for electronic downloading.

15. Reasons for Changes in Burden or Cost

There is no change in burden. The overall burden for this renewal remains unchanged at 467 staff-hours annually. The staff hourly rate for professional staff increased from \$288 to \$317 per staff-hour in June 2024, which was an increase of \$29 per staff-hour (\$317 per staff-hour minus \$288 per staff-hour = \$29 per staff-hour). This resulted in an overall increase of \$13,543 (\$29.00 per staff-hour x 467 staff-hours).

16. Publication for Statistical Use

None.

17. Reason for Not Displaying the Expiration Date

The LLW shipping industry utilizes software to generate Form 542/542A. This software must undergo a verification and validation process by the waste generators every time a change is made to the form. Many waste collectors and waste processors have strict change management processes that are time consuming and expensive.

For this reason, changing the expiration date on the form would cause the industry the burden of performing a time-consuming verification and validation on the software that generates the forms. As such, the expiration date will not be displayed on the hardcopy form. Only changes to content of the NRC Form 542/542A will require imposing the burden of the software update and subsequent verification and validation on form users.

18. Exceptions to the Certification Statement

There are no exceptions.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

The collection of information does not employ statistical methods.