

FINAL OMB 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

U.S. Nuclear Regulatory Commission (NRC) Form 542 and continuation Form 542A are completed by processors and collectors of low-level radioactive waste (LLW) that are shipping LLW attributed to others for disposal at a licensed land disposal facility. The completed NRC Forms 542 contains information needed to satisfy the waste manifesting requirements of the NRC's 10 CFR Part 20 and information on the attribution of the waste. Each waste container shipped from a waste processor may contain waste from several different generators. Tracking the identity of the original waste generator becomes more complicated when the waste forms, dimensions, or packaging are changed by the waste processor. These forms are used to attribute the waste to the original generator for regional waste compact tabulation. NRC Form 542/542A, combined with NRC Forms 540/540A and 541/541A, are collectively referred to as the Uniform Low-Level Radioactive Waste Manifest forms. NUREG/BR-0204, Rev. 3, contains instructions for completing NRC Forms 540, 540A, 541, 541A, 542, and 542A.

The disposal facilities and their Agreement State regulators, where applicable, use the information found on the forms to ensure waste disposal meets the requirements in 10 CFR Part 61 for the protection of the public and environment. The NRC does not collect or retain data on the forms and the forms are not sent to or received by the NRC. Agreement States do not need to adopt NRC Forms 540, 540A, 541, 541A, 542, and 542A.

NRC Form 541/541A and 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. Using both 1 and 2 are acceptable. NRC Forms 540 and 540A (if needed) are required to be with the shipment regardless of whether 1 or 2 are chosen.

As stated in 10 CFR Part 20, Appendix G,

“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 LLW, either directly or indirectly (e.g., through a waste processor), to a licensed disposal facility is currently accompanied by a waste manifest that describes the shipment contents as required in 10 CFR Part 20 and the Department of Transportation regulations in 49 CFR Part 172. Presently, there are four LLW disposal facilities in operation, all located in Agreement States and licensed under the Agreement State equivalents of 10 CFR Part 61. Some Agreement State regulators use official NRC Form 540, 541, and 542, however, other Agreement State regulators use their own forms that are equivalent versions of the NRC forms but do include state-specific requirements. The 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 Part 20.

2. Agency Use of Information

The agency requires the information on NRC Forms 542 and 542A to ensure that States and Compacts know the original generators of LLW, as authorized by the Low-Level Radioactive Waste Policy Amendments Act of 1985, so that the waste is disposed of in the appropriate Compact.

3. Reduction of Burden through Information Technology

Appendix G of 10 CFR Part 20 allows licensees to use substitute forms that are equivalent to the original documentation in 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. Licensees can use software packages from several commercial vendors are available that can generate NRC Form 542 electronically. The information is not transmitted to NRC.

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 shippers of LLW pursuant to Appendix G to 10 CFR Part 20. 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

If the collection is not conducted at all or is conducted less frequently, NRC and State regulatory agencies will not be able to obtain information needed to control and safely regulate disposal of LLW.

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 August 10, 2022 (87 FR 48700). The NRC staff contacted nine potential respondents via email as part of the consultation process, including two LLW disposal facility licensees, three Uniform Waste Manifest Form software vendors, and four Agreement State regulators to solicit feedback on this information collection. Two comments were received as follows.

Thomas Kalinowski, President of DW James Consulting LLC noted in his comments that it is advantageous for his company and the nuclear industry to have a consistent format for presentation of the data on the NRC Form 542 and that while Agreement States and disposal site operators often require additional site-specific data, they typically follow the basic format of the NRC's Uniform Waste Manifest. Mr. Kalinowski commented that the burden included in this information collection may be appropriate for non-utility licensees with simple shipments or utility waste generators shipping only their own waste; however, the burden on brokers and processors is likely more significant. Mr. Kalinowski notes that his company does not have sufficient data to develop an estimate of this burden on brokers and processors that use the NRC Form 542 for attributing waste to the original generator after processing, which requires accurate process control. The NRC staff appreciates Mr. Kalinowski's comments and related insights regarding training and inspection procedures for NRC inspectors on the data collected on the NRC Form 542. However, in the absence of specific information regarding the burden on brokers and processors, the NRC staff has no basis for modifying the burden estimates included in this information collection.

Chris Shaw, Licensing Manager of Waste Control Specialists LLC noted in his comments that he believes the proposed information collection is necessary and the burden estimates are reasonably accurate. Mr. Shaw comments that most respondents his company encounters are currently using a software generator for NRC's Uniform Low-Level Radioactive Waste Manifest to create manifests and that these programs have become more user-friendly. The NRC staff appreciates this feedback and believes Mr. Shaw's comments do not impact this information collection.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b). 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

It is estimated that 623 NRC Forms 542 will be processed annually by 71 NRC and Agreement States licensees. Only waste collectors/processors complete this form, and most uses are the Agreement State equivalent versions of the NRC form. The number of Form 542/542A developed annually was estimated based on a percentage of the total estimated amount of NRC Forms 540/540A/541/541A assumed in this current extension (13.5% of 4,616 NRC Form 540 from 10% of 712 NRC and Agreement State licensees). This percentage was assumed consistent with the previous extension assumptions.

It is assumed all shippers prepare the manifests electronically; therefore, the average burden to complete the form is estimated to be 0.75 hours. The total industry burden for completion of the form is estimated at 467 hours annually (623 forms x 0.75 hours) for reporting. The total cost is estimated to be \$134,496 (467 hours x \$288/hour).

The \$288 hourly 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 2021 (86 FR 32146, June 16, 2021).

13. Estimated of Other Additional Cost

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. Additionally, the forms are not submitted directly to the NRC, so there are no costs associated with processing or reviewing the forms.

15. Reasons for Changes in Burden or Cost

The NRC staff was able to better estimate the number of NRC Form 542/542A prepared annually by using updated publicly available information from the Department of Energy. As such, the total annual number of NRC Form 542/542A decreased from 756 to 623; however, the assumed burden of 0.75 hours to complete the form is the same. As a result, there is an overall reduction in burden by 100 hours from 567 hours to 467 hours and a decrease in the estimated cost.

The hourly cost for professional staff has increased from \$275/hour to \$288/hour.

16. Publication for Statistical Use

None.

17. Reason for Not Displaying the Expiration Date

The LLW shipping industry utilizes software to generate the 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 causes 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.