FINAL OMB SUPPORTING STATEMENT
FOR
NRC FORM 4
CUMULATIVE OCCUPATIONAL DOSE HISTORY

(3150-0005)

EXTENSION

Description of the Information Collection

The purpose of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 20 is to establish "Standards for Protection Against Radiation." 10 CFR Part 20 provides requirements for persons licensed by the U.S. Nuclear Regulatory Commission (NRC) to receive, possess, use, transfer, or dispose of byproduct, source, or special nuclear material or to operate a production or utilization facility under parts 30 through 36, 39, 40, 50, 52, 60, 61, 63, 70, or 72. In addition, 10 CFR Part 20 applies to persons required to obtain a certificate of compliance or an approved compliance plan under 10 CFR Part 76, "Certification of Gaseous Diffusion Plants."

Pursuant to 10 CFR 20.1502, licensees are required to monitor exposures to radiation and radioactive material at levels to demonstrate compliance with the occupational dose limits in 10 CFR 20.1201. 10 CFR 20.2104 requires licensees to determine the occupational radiation dose received by an individual who required monitoring under 10 CFR 20.1502 during the current year. To comply with these requirements, the licensee may accept a written signed statement from the individual or from the individual's most recent employer as a record of the occupational dose that the individual received during the current year. The licensee may also accept an up-to-date NRC Form 4, "Cumulative Occupational Dose History," or its equivalent as a record of cumulative radiation dose. The NRC Form 4 is a summation of the information previously provided using NRC Form 5, "Occupational Dose Record for A Monitoring Period." The NRC Form 4 must be signed by the individual and countersigned by an appropriate official of the most recent employer for work involving radiation exposure, or the individual's current employer (if the individual is not employed by the licensee).

A. JUSTIFICATION

1. Need for and Practical Utility of the Information Collection

10 CFR 20.2104 requires licensees to determine an individual's prior occupational dose. As specified in 10 CFR 20.2104(c), licensees may obtain this information through several methods. 10 CFR 20.2104(d) requires licensees to record an individual's prior occupational dose on an NRC Form 4, or its equivalent, and this record must show each period in which the individual received occupational exposure to radiation or radioactive material and must be signed by the individual who received the exposure. The data contained in NRC Form 4, or its equivalent, can be reviewed by NRC inspectors to determine compliance with the annual dose limits in 10 CFR 20.1201 to ensure the health and safety of licensee employees.

In addition, 10 CFR 20.2104(f) requires licensees to retain the NRC Form 4 records, or its equivalent, until the Commission terminates the license. Additionally, the licensee shall retain records used in preparing NRC Form 4 for 3 years after the record is made.

The NRC Form 4 information collection is based, in part, on Presidential Guidance to Federal Agencies for Occupational Exposure published in the *Federal Register* on January 27, 1987. NRC Form 4 is a cumulative summary of the information found on NRC Form 5 (OMB clearance 3150-0006), which is submitted by NRC licensees annually pursuant to 10 CFR 20.2206.

2. Agency Use of Information

The NRC uses the information to ensure that licensees are complying with the appropriate regulations, specified in 10 CFR 20.1502 and 10 CFR 20.2104 and their license conditions to protect the health and safety of occupational radiation workers and the public.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. The NRC encourages respondents to use information technology when it would be beneficial to them.

The NRC has issued *Guidance for Electronic Submissions to the NRC* which provides direction for the electronic transmission and submittal of documents to the NRC. It is estimated that approximately 96 percent of the requests for NRC Form 4 information are filed electronically. This estimate is based on 2021 calendar year data[1] and staff experience. NRC staff does not anticipate that the percentage of electronic submissions will change during the upcoming clearance period.

The NRC Form 4 is not required to be submitted to the NRC. However, NRC licensees provide this form to their occupational radiation workers who were monitored pursuant to 10 CFR 20.1502.

Regulatory Guide 8.7, Revision 4, (May 2018), “Instructions for Recording and Reporting Occupational Radiation Dose Data,” provides licensees with guidance regarding the recommended format for both paper and electronic submission of occupational radiation dose data.

NRC has an automated dose history request form on the Radiation Exposure Information and Reporting System (REIRS) at https://www.reirs.com that allows individuals and organizations to request a cumulative dose history report, or NRC Form 4, for individuals monitored at NRC facilities. The automated request form facilitates the submission of a request in a secure manner. A requestor electronically submits a request by providing full

[1] In total, NRC received **135,632** electronic records and **5,029** paper records for the 2021 calendar year from NRC licensees required to report occupational dose data pursuant to 10 CFR 20.2206(c).

name, title, organization, email, phone number, and the names for whom the records are sought. Once the individual provides a signed release and photo identification, the NRC Form 4 report is sent via an encrypted email.

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 automated dose history request option, available on the REIRS Web site is particularly beneficial to small businesses that may not have the resources to obtain prior dose histories for their occupational radiation workers. It is not possible to reduce the burden on small businesses any further and still meet the objectives stated in A.1 of this document.

6. Consequences to Federal Program Activities if the Collection is not Conducted or is Conducted Less Frequently

If the requirements of 10 CFR 20.2104 were not met by licensees, licensees would not be knowledgeable of an occupational worker's prior radiation exposure. Without this information, an occupational radiation worker could receive a radiation exposure in excess of the limits specified in 10 CFR 20.1201 for the current year. This lack of information could result in non-compliance by a licensee.

7. Circumstances Which Justify Variation from OMB Guidelines

Records associated with the NRC Form 4 must be retained for the life of the NRC license in accordance with 10 CFR 20.2104(f). Maintaining the records for the life of the NRC license assists in several of the routine uses of the System of Records NRC-27, such as evaluating radiation exposure received by individuals and advising standards for protection against ionizing radiation resulting from activities conducted under licenses issued by the NRC.

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 30, 2023 (88 FR 59951). A nuclear power facility licensee, a research broad-scope materials licensee, and a university research reactor licensee were contacted by telephone. No responses or comments were received as a result of the FRN or the staff's direct solicitation of comment.

9. Payment or Gifts 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) and 10 CFR 2.390(b).

NRC Form 4 specifies the use of the individual's name, social security number or other unique ID, date of birth, and sex. This information is necessary to ensure the proper identification of the individual. The use of the social security number or other unique identifier is necessary to verify the identity of an individual because of the large number of individuals who have identical names and birth dates, and whose identities can only be distinguished by a unique identifier.

As part of an individual's request for dose history on NRC Form 4, the individual completes an Automated Dose History Request Form, signs a records release authorization, and provides photo identification. Photo identification may be driver's license, photo ID, or birth certificate. This information is submitted through an online, secured portal. The submitted information is stored in an encrypted database behind an Internet security firewall. The database is distinct from the REIRS database. Access to this information is limited to the employees fulfilling the dose request. Employee access is reviewed annually.

Each step of the process is specifically designed to protect sensitive identifying information. The web-based form uses the Secure Socket Layer (SSL) protocol to protect the information as it is entered into the form. Once entered, this information is processed behind an Internet security firewall. In addition, the PDF file containing the dose history report is password-protected using the password provided by the requestor and is encrypted for transmittal back to the requestor via email.

In accordance with 10 CFR 20.2106(d), NRC Form 4 falls under privacy protection. The information in the NRC Form 4 is protected from public disclosure, in part, due the requirement that identification of the requester is required before it can be released.

There is a Privacy Act System of Records Notice for the NRC's Radiation Exposure Information and Reporting System (REIRS). The System of Records Notice for REIRS, NRC-27, was last published on December 27, 2019 (84 FR 71536) and can be found under https://www.nrc.gov/docs/ML2002/ML20022A245.pdf. A privacy act statement is viewable as part of the process for requesting dose history on NRC Form 4 and has been included as part of the information collection instrument with this submission.

This system of records allows the NRC to provide REIRS data to states, government agencies, and organizations that conduct health studies research. Requests for access to REIRS data follow a multi-step process. Agencies interested in performing statistical or other evaluations of the data must first send a request to the REIRS project manager (PM) in the Office of Nuclear Regulatory Research. The PM reviews the request for consistency with the authorized uses of the data under the Privacy Act. Data in the REIRS system are stored in a secure

server at Oak Ridge Associated Universities (ORAU). Any agencies requesting REIRS data must provide evidence of the ability to protect Personally Identifiable Information (PII) in the data request. Once the PM approves the request for data, a

request is made to the ORAU technical and security staff to provide an additional review to ensure PII is protected before any data is transferred to the requesting entity.

The NRC has an interagency agreement with the U.S. Department of Energy (DOE) to provide REIRS data and to receive data from DOE's Radiation Exposure Management System (REMS).

11. Justification for Sensitive Questions

This information collection does not involve personally sensitive information.

12. Estimated Burden and Burden Hour Cost

Licensees are required to provide each of their employees who have been monitored for radiation exposure, an NRC Form 4 (or equivalent form) at the end of the monitoring year pursuant to 10 CFR 19.13. It takes licensees an estimated 2 minutes (0.03 hours) to print an NRC Form 4 (or equivalent) and provide it to their employees. Information collected in NRC Form 4 is captured as a third-party disclosure (see Table 1).

Table 1. Third-party Disclosure for NRC Form 4 – Record Provided to Monitored Individuals

Number of Respondents		Responses Per Respondent	Total Responses	Burden Per Responses (hours)	Total Burden (hours)
Reactors	93	1,545	143,699	0.03	4,311
Materials - data from REIRS	68	126	8,586	0.03	258
Materials - licensees not subject to 20.2206(a), no REIRS data	4,243	20	84,860	0.03	2,546
Totals	4,404		237,145		7,115

The estimates presented in Table 2 are based on the 2021 reporting year and NRC staff estimate that the number of responses during the clearance period will be similar. Table 2 contains information for 93 reactor sites (licensee data contained in the REIRS database); 68 materials sites (licensee data contained in the REIRS database); and 4,243 materials sites (licensee data not contained in the REIRS database because these licensees are not subject to the reporting requirement in 10 CFR 20.2206(a)).

Additionally, copies of an individual's NRC Form 4 can be requested electronically through the REIRS website--on average, annually 1,880 individuals request records electronically at five minutes per request for a total of 157 hours (at $290/h) for an additional burden of $45,530.

	Table 2. Total Burden and Responses		
	Responses	Hours	Cost at $290/h
Reporting	1,880	157	$ 45,530
Third Party disclosure	237,145	7,115	$ 2,063,350
Recordkeeping	4,404	59,286	$ 17,192,940
Total	243,429	66,558	$ 19,301,820

Below is a breakdown of the numbers presented in Table 2:

- ***Reactors***
  - Number of monitored individuals at 93 reactor sites: 122,681
  - Number of transient workers at 93 reactor sites: 21,018
  - Total responses for 93 reactor sites: 143,699

- ***Materials***
  - Number of monitored individuals at 68 materials sites: 8,521
  - Number of transient workers at 68 materials sites: 65
  - Total responses for 68 materials sites: 8,586

- ***Materials (not subject to 10 CFR 20.2206(a))***
  - Number of monitored individuals at 4,243 materials sites: 76,097
  - Number of transient workers at 4,243 materials sites: 8,763
  - Total responses for 4,243 materials sites: 84,860

In addition to providing an NRC Form 4 (or equivalent) to monitored individuals, licensees continue to complete NRC Form 4 each time a worker changes employment during the year. As a result, the greatest burden is on licensees who employ transient workers. NRC's Radiation Exposure Information and Reporting System (REIRS) contain information on the number of transient workers at licensee sites that are subject to 10 CFR 20.2206(a)[2]. For the 2021 reporting year, the data show that as of June 2022, 161 sites employed 21,083 transient workers (21,018 transient workers at the 93 reactor sites
+ 65 transient workers at 68 materials sites). In addition to these sites, some sites are not subject to 10 CFR 20.2206(a) and therefore are not required to report to the REIRS system, but still voluntarily maintain NRC Form 4 for their workers. NRC estimates that 4,243 additional materials sites are maintaining NRC Form 4 for 8,763 transient workers. The total number of transient workers at all sites is estimated to be 29,846 (21,083 transient workers at sites with data in the REIRS system + 8,763 transient workers at sites without data in the REIRS system).

[2] Data in the REIRS system is based on other approved NRC information collections, such as NRC Form 5, "Occupational Dose Record for a Monitoring Period" (3150-0006)

The recordkeeping burden is 0.25 hours (15 minutes) to complete, review, and authorize each NRC Form 4. Using the total responses (which includes transient workers), the annual burden is 59,286 hours (237,145 workers x 0.25 hours). The annual cost for this requirement is $17,192,940 (at $290/h) (see Table 3).

Table 3. Recordkeeping Burden Associated with NRC Form 4

Number of Recordkeepers		Number of Records/ Recordkeepers	Number of Records	Burden hours/ record	Annual Burden (hours)	Annual Cost@ $290/h
Reactors	93	1,545	143,699	0.25	35,925	$10,418,250
Materials - data from REIRS	68	126	8,586	0.25	2,146	$622,340
Materials - licensees not subject to 10 CFR 20.2206(a), no REIRS data	4,243	20	84,860	0.25	21,215	$6,152,350
Totals	4,404		237,145		59,286	$17,192,940

Finally, the NRC Form 4 is required each time a worker participates in a planned special exposure. The NRC does not anticipate that any workers will participate in a planned special exposure during the clearance period.

The total burden for NRC Form 4, including both third party disclosure, recordkeeping, REIRS website requests is 66,558 hours (157 hours (see Table 4), 59,286 recordkeeping + 7,115 hours third party disclosure) at a cost of $19,301,820 (66,558 hours x $290/h).

Table 4. Reporting Burden – Website Requests

	Respondents	Responses Per Respondent	Total Responses	Burden per Responses (hours)	Total Burden (hours)
Website Requests	1880	1	1,880	0.083	157

The $290 hourly rate used in the burden estimates is based on the Nuclear Regulatory Commission’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 2022 (87 FR 37214, June 22, 2022).

13. Estimate of Other Additional Cost

The NRC has determined that the quantity of records to be maintained is roughly proportional to the recordkeeping burden and therefore, can be used to calculate approximate records storage costs. Based on the number of pages maintained for a typical clearance, the records storage cost has been determined to be equal to 0.0004 times the recordkeeping burden cost. Because the recordkeeping burden is estimated to be 59,286 hours, the storage cost for this clearance is $6,877 (59,286 hours x 0.0004 x $290/h).

14. Estimated Annualized Cost to the Federal Government

The staff has developed estimates of annualized costs to the Federal Government related to the conduct of this collection of information. These estimates are based on staff experience and subject matter expertise and include the burden needed to review, analyze, and process the collected information and any relevant operational expenses.

NRC cost is incurred by inspectors reviewing the information on NRC Form 4, or its equivalent, and supporting records maintained by licensees. Annually, 93 hours (1 hour/site x 93 reactor sites) of inspection time is spent reviewing such records, at an average of 1 hour for each of the 93 reactor sites. The annual cost for reactor inspectors to review the NRC Form 4, or its equivalent, is $ 26,970 (93 hours x $290/h).

NRC is responsible for conducting inspections of NRC Form 4, or its equivalent, and supporting records maintained by 4,311 materials licensees. It is estimated that approximately 431 hours (0.1 hour/site x 4,311 materials sites) of inspection time is spent reviewing such records at an average of 0.1 hour for each of the 4,311 materials sites. The annual cost for materials inspectors to review the NRC Form 4 is $124,990 (431 hours x $290/h).

Annually, the total time spent reviewing NRC Form 4, or its equivalent, records is 524 hours (93 hours for reactor sites + 431 hours for materials sites). The total inspection cost, annually, is approximately $151,960 ($26,970 for reactor inspections + $124,990 for materials inspections) (see Table 5).

Table 5. Estimated Annualized Cost to the NRC for Review of Reports and Inspections Associated with NRC Form 4				
Number of Respondents		Staff Hours Per Licensee	Staff Burden Hours	Annual Cost @ $290/h
Reactors	93	1.0	93	$26,970
Materials	4,311	0.1	431	$124,990
Totals	4,404		524	$151,960

15. Reasons for Change in Burden or Cost

The estimated burden has increased by 604 hours from the previous burden of 65,954 hours to 66,558 hours (see Table 6).

The burden increase is primarily due an increase in respondents that are not subject to 10 CFR 20.2206(a) but must still maintain these records using an NRC Form 4 or equivalent. The number of licensees that fall in this category and report to REIRS may vary from year to year and was 9,860 responses higher compared to the previous renewal in 2020. This led to a 539-hour increase in recordkeeping and a 64-hour increase in third party disclosure burden estimates.

	Table 6. Change in Burden and Responses					
	2020 Renewal		Current Request		Change	
	Responses	Hours	Responses	Hours	Responses	Hours
Reporting	1,880	157	1,880	157	-	-
Third Party Disclosure	234,988	7,050	237,145	7,115	2,157	5
Recordkeeping	4,146	58,747	4,404	59,286	258	539
TOTAL	241,014	65,954	243,429	66,558	2,415	604

As shown in Table 6, recordkeeping burden increased from 58,747 hours to 59,286 hours, mainly due to the higher number of non-material licensees reporting.

It should be noted that the NRC does not anticipate any planned special exposures during the next three years.

Additional costs associated with records storage have increased from $6,533 to $6,877 (an increase of $344) due to an increase in the fee rate used to calculate the costs. The fee rate has increased from $278 to $290 per hour. Because the recordkeeping burden is estimated to be 59,286 hours, the storage cost for this clearance is $ 6,877 (59,286 hours x 0.0004 x $290/h).

16. Publication for Statistical Use

NRC Form 4 is not published for statistical use.

17. Reason for Not Displaying the Expiration Date.

The expiration date is displayed on NRC Form 4.

18. Exceptions to the Certification Statement.

Not applicable.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Statistical methods are not employed in the collection of information.