

DRAFT OMB SUPPORTING STATEMENT FOR NRC FORM 4

(CLEARANCE REVISION)

(3150-0005)

CUMULATIVE OCCUPATIONAL EXPOSURE HISTORY

Description of the Information Collection

Part 20, Title 10 of the Code of Federal Regulations (10 CFR Part 20), provides requirements to licensees who receive, possess, use, transfer, or dispose of byproduct, source, or special nuclear material or who operate a production or utilization facility under parts 30 through 36, 39, 40, 50, 60, 61, 70, 72 or 76 for compliance with "Standards for Protection Against Radiation." One of the requirements stipulates that the occupational radiation exposure must be recorded by all licensees. Certain categories of NRC licensees are subject to the reporting requirements of 10 CFR 20.2206 and must report radiation exposure for individuals monitored to the NRC on an annual basis.

Pursuant to 10 CFR 20.2104 "Determination of Prior Occupational Dose," for each individual who is likely to receive, in a year, an occupational dose requiring monitoring, the licensee shall 1) determine the occupational radiation dose received during the current year, and 2) attempt to obtain the records of cumulative occupational radiation dose. 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 accept as a record of cumulative radiation dose an up-to-date NRC Form 4, or equivalent. The NRC Form 4 should 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). The instructions for NRC Form 4 were revised to add a definition of "No Record." This clarification does not impact the burden per response.

A. JUSTIFICATION

1. Need for and Practical Utility of the Information Collection

The information collection was based, in part, on Presidential Guidance to Federal Agencies for Occupational Exposure published in the *Federal Register* on January 27, 1987.

In order to protect the health and safety of workers, 10 CFR Part 20 requires licensees to control, within specified limits, the occupational radiation dose. NRC Form 4 is to be completed and maintained by NRC licensees until their license is terminated by the Commission. The data contained on the form can be reviewed by the NRC inspectors to determine compliance with the dose-limit requirements of the NRC regulations in order to ensure the health and safety of the licensee employees.

The NRC Form 4 is a cumulative summary of the information found on NRC Form 5 submitted annually by all the licensees for individuals for whom monitoring was provided.

2. Agency Use of Information

The NRC uses the information to ensure that licensees are complying with the appropriate regulations and their license conditions in order to protect the health and safety of the workers and the public.

3. Reduction of Burden Through Information Technology

The NRC Form 4 is not required to be submitted to the NRC. It is provided to the radiation workers listing their exposure history. The NRC supplied software, Radiation Exposure Management Information Transmittal (REMIT) is available at no cost to licensees. The NRC provides technical support to users of the REMIT software which allows licensees to generate the NRC Form 4. In addition, the NRC has an automated dose history request form on the Radiation Exposure and Information Reporting System (REIRS) web site ([www.reirs.com](http://www.reirs.com)) to allow individuals and organizations to request a dose history using NRC Form 4 for individuals monitored at NRC facilities. The automated request form reduces the amount of paper needed to submit a request, and the report is sent to the requestor as a password protected e-mail attachment, thereby reducing the paper needed to respond to the request.

4. Effort to Identify Duplication and Use Similar Information

The Information Requirements Control Automated System (IRCAS) was searched and no duplication was found. There is no similar information available to the NRC.

5. Effort to Reduce Small Business Burden

The information required by NRC Form 4 is needed for the employees of small businesses as well as for employees of larger business firms to ensure that licensees comply with 10 CFR Part 20.2104. The REMIT software was designed to reduce the burden to small businesses in generating and exchanging Form 4's. The automated dose history available on the REIRS web site is particularly beneficial to small businesses who may not have the resources to obtain prior dose histories. It is not possible to reduce the burden on small businesses any further and still meet the objectives stated in A.1.

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

The NRC Form 4 is filled in for an individual at the start of each new employment period. Less frequent collection would mean not checking doses received from previous employment. A worker could receive an occupational dose in excess of

the limits of 10 CFR Part 20 if the dose from prior employment during the current year is not considered in assessing the dose a worker could receive during current employment.

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 order to determine a worker's prior occupational radiation dose, as required pursuant to 10 CFR 20.2104.

8. Consultations Outside the NRC

The opportunity for public comment has been published in the *Federal Register*.

9. Payment or Gifts to Respondents.

Not applicable.

10. Confidentiality of Information

This information is subject to the Privacy Act of 1974 and is only available through the NRC's Privacy Act System of Records, NRC-27, REIRS.

11. Justification for Sensitive Questions

NRC Form 4 specifies the use of the individual's name, social security number or other ID, date of birth, and sex. This information is necessary to ensure the proper identification of the individual.

12. Estimate of Annual Burden

The requirement to obtain and maintain the information specified on NRC Form 4 for each individual for whom monitoring is required extends to the NRC licensees (104 reactors in commercial operation and about 4,498 NRC materials licensees). Since NRC Form 4 is filled out each time a worker changes employment during the year, the greatest burden is on licensees who utilize transient workers. In 2002, licensees required to submit annual occupational radiation exposure reports in accordance with 10 CFR 20.2206(a), utilized 24,352 transient workers. Of these workers 24,164 worked at the 104 reactor sites. The other 188 transient workers (24,352-24,164) worked at 135 materials licensees<sup>1</sup>. Approximately, 0.50 hours is required to complete, review and authorize each NRC Form 4. Therefore, there is an annual burden of 12,082 hours for reactor sites, (24,164 transient workers x 0.5 hour/transient worker), and 94 hours for materials licensees (188 transient workers x 0.5 hour/transient worker) for a total annual burden of 12,176 hours. The annual cost to reactor

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<sup>1</sup> The 135 materials licensees have most of their transient workers because of their NRC categorization and the type and quantity of material used.

sites for this requirement is \$1,896,874 (12,082 hours x \$157/hour) and \$14,758 (94 hours x \$157/hour) for materials licensees. The total annual cost to licensees is \$1,911,632 (see Table 1).

13. Estimate of Other Additional Cost.

Not applicable.

14. Estimated Annualized Cost to the NRC

NRC cost is incurred by inspectors reviewing the information on NRC Form 4, or its equivalent, and supporting records maintained by licensees. Annually, 104 hours of inspection time is spent reviewing such records, at an average of 1 hour for each 104 sites. In addition, 450 hours of inspection time is spent reviewing these records at an average of 0.1 hours for each of the 4,498 materials licensees. Annually, the total time spent reviewing these records is approximately 554 hours. The annual cost for reactor inspections to review these forms is \$16,328 (104 hours x \$157) and the annual cost for materials inspections to review these forms is \$70,650 (450 hours x \$157). Annually the total inspection cost is approximately \$86,987 (see Table 2). These costs are fully recovered through fee assessments to NRC licensees pursuant to 10 CFR Parts 170 and 171.

15. Reasons for Change in Burden

The estimated burden has increased from 11,531 hours to 12,176 hours due to the increase in the number of transient workers from 23,077 to 24,352.

16. Publication for Statistical Use

None.

17. Reason for Not Displaying the Expiration Date.

The requirement will be contained in a regulation. Amending the Code of Federal Regulations to display information that, in an annual publication, could become out of date would confuse the public.

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.

TABLE 1  
 RECORDKEEPING BURDEN  
 ASSOCIATED WITH NRC FORM 4

NUMBER OF RECORDKEEPERS		NUMBER OF RECORDS	BURDEN HOURS/RECORD	ANNUAL BURDEN	ANNUAL COST \$157/HOUR
Reactors	104	24,164	0.50	12,082	\$1,896,874
Materials	135	188	0.50	94	\$14,758
Total	239			12,176	\$1,911,63

TABLE 2  
 ESTIMATED ANNUAL COST TO THE NRC  
 FOR REVIEW OF RECORDS AND INSPECTIONS  
 ASSOCIATED WITH NRC FORM 4

FORM 4	NUMBER OF RESPONDENTS	STAFF HOURS/LICENSEE	STAFF HOURS	COST/HOUR	NRC COST
Reactors	104	1.00	104	\$157	\$16,328
Materials	4,498	0.1	450	\$157	\$70,650
Total	4,602				\$86,978

DRAFT OMB SUPPORTING STATEMENT FOR NRC FORM 5

(CLEARANCE REVISION)

(3150-0006)

OCCUPATIONAL EXPOSURE RECORD FOR A MONITORING PERIOD

Description of the Information Collection

Part 20, Title 10 of the Code of Federal Regulations (10 CFR Part 20), provides requirements to licensees who receive, possess, use, transfer, or dispose of byproduct, source, or special nuclear material or operate a production or utilization facility under parts 30-36, 39, 40, 50, 60, 61, 70, 72 or 76. The purpose of 10 CFR Part 20 is to establish "Standards for Protection Against Radiation."

Pursuant to 20.2104(a)(1) licensees are required to determine occupational radiation exposure of employees received during the current year to ensure compliance with the annual dose limits. In 10 CFR 20.2106 all licensees must maintain records of doses received by all individuals for whom monitoring was required. Certain licensees as listed in 10 CFR 20.2106 must report radiation occupational exposures to the NRC on an annual basis on NRC Form 5 or on electronic media containing all the information required by NRC Form 5. Pursuant to 10 CFR 19.13(b) individuals, for whom monitoring is required, must be informed of data contained in NRC Form 5.

The NRC uses the information submitted by licensees to monitor the effectiveness of radiation protection programs and procedures at licensees' facilities. This information is maintained in the NRC's Radiation Exposure Information and Reporting System (REIRS). This database is the NRC component of a nationwide radiation worker registry which implements the Federal Radiation Protection Guidance for Occupational Exposure approved by the President on January 20, 1987 (52 FR 2822-2834, January 27, 1987). An analysis of this data is published annually in NUREG-0713 "Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities" and is used by NRC, other government agencies, and licensees to develop dose-trends at licensed facilities.

NRC encourages licensees to reduce the paperwork burden on themselves and on the NRC by transmitting this information electronically. Complete information is provided to licensees in Regulatory Guide 8.7, Revision 1, "Instructions for Recording and Reporting Occupational Radiation Dose Data," regarding the recommended format for such submittal. In addition, software has been developed, and is available from the NRC at no cost to the licensee. For those licensees with Internet access this software may be downloaded free of charge from the NRC's Web Page for Occupational Radiation Exposure at NRC Licensed Facilities at "<http://www.reirs.com>." This software vastly reduces the burden of collecting and maintaining information. Also, it allows licensees to analyze compiled data to improve radiation protection, to produce the completed NRC Form 5, and download this information to a disk for submittal to the NRC. The instructions for NRC Form 5 were revised to add a definition of "No Record". This clarification does not impact the burden per response.

## A. JUSTIFICATION

### 1. Need for and Practical Utility of the Information Collection

In order to protect the health and safety of workers, 10 CFR Part 20 requires all licensees to control their occupational radiation dose. The NRC regulations require licensees listed in 10 CFR 20.2206(a) to submit a NRC Form 5, or its equivalent, to the NRC annually for each individual monitored. The NRC compiles and analyzes these reports to assess the effectiveness of radiation protection programs among its licensees.

### 2. Agency Use of Information

The NRC uses the information to ensure that licensees are complying with the appropriate regulations in a manner adequate to protect worker and public safety. The information is also used by the NRC to evaluate licensees' operations to ensure that they are meeting the requirements of their licenses.

### 3. Reduction of Burden Through Information Technology

As of August 2003, 100 of the 239 licensees who reported electronically for calendar year 2002 used either the Radiation Exposure Management Information Transmittal (REMIT) software or their own method to record and prepare this information. Of the 100 reports submitted electronically 25 were from materials licensees and 75 were from reactor licensees. The 100 licensees who submitted electronically consisted of 170,704 records versus the remaining 139 licensees who submitted 4,752 paper NRC Form 5s or their equivalents, for a total of 175,456 separate records. Of these records 161,396 were from reactor licensees and 14,060 were from materials licensees. NRC encourages the use of any applicable information technology to produce and store information. NRC has published detailed instructions on the electronic transmission of the data contained in the NRC Form 5 to reduce the burden of reporting on licensees.

### 4. Effort to Identify Duplication and Use Similar Information

The Information Requirements Control Automated System (IRCAS) was searched and no duplication was found. There is no similar information available to the NRC.

NRC Form 5 is the only source of complete monitoring information on the worker's current or most recent occupational dose. There is no similar information which can be readily used to satisfy the needs stated in item A.1.

### 5. Effort to Reduce Small Business Burden

The information required by NRC Form 5 is needed for the employees of small businesses as well as for employees of larger business firms. NRC's development and support of the REMIT software is a direct effort to reduce the

burden on small business by offering free software that helps licensees maintain and report radiation exposure records to the NRC. It is not possible to further reduce the burden on small businesses and still meet the objectives stated in A.1.

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

Less frequent collection would mean that workers could receive occupational doses in excess of the limits in 10 CFR 20 if the doses were not reported annually. In some cases, REIRS is the only method to identify radiation exposures in excess of the regulatory limit for workers who receive exposure at more than one licensee.

7. Circumstances Which Justify Variation from OMB Guidelines

Records associated with the NRC Form 5 must be retained for the life of the NRC license in order to permit an individual to receive a planned special exposure.

8. Consultations Outside the NRC

The opportunity for public comment has been published in the *Federal Register*.

9. Payment or Gifts to Respondents

Not applicable.

10. Confidentiality of Information

This information is subject to the Privacy Act of 1974 and is only available through the NRC's Privacy Act System of Records, NRC-27, REIRS.

11. Justification for Sensitive Questions

NRC Form 5 specifies the use of the individual's name, social security number or other identification, date of birth, and sex. This information is necessary to ensure the proper identification of the individual.

12. Estimate of Annual Burden

Recordkeeping: The requirement to obtain and maintain the information specified on NRC Form 5 for each individual for whom monitoring is required extends to all of the 104 reactor sites and all 4,498 materials licensees. It is estimated that approximately 119,678 persons are currently monitored annually generating approximately 175,456 separate records (individuals that receive radiation exposure at more than one licensee generate more than



one record). Assuming 0.33 hours of clerical time to complete each individual's NRC Form 5, the annual recordkeeping burden is 57,900 hours (175,456 records x 0.33 hours/record). The annual cost associated with this burden is \$2,837,100 (57,900 hours x \$49/hour), (see Table 1).

- Reporting: The requirement in 10 CFR 20.2206(c) states that those licensees listed in 10 CFR 20.2206(a) are to report each individual's occupational radiation exposure annually. Approximately 40 hours is needed per licensee to review and authorize their annual submittal of the NRC Form 5. This time includes preparing a cover letter and downloading the information to a disk, or preparing the paper NRC Form 5s for shipment. In 2002, 104 reactor sites and 135 materials licensees reported this information to the NRC. The annual burden to the reactor licensees is 4,160 hours (104 reactor sites x 40 hours) and the annual burden to materials licensees is 5,400 hours (135 materials licensees x 40 hours). The total burden for licensees required to report is 9,560 hours (4,160 hours + 5,400 hours). The cost associated with each of these burdens is \$653,120 (4,160 hours x \$157/hour) for reactor sites and \$847,800 (5,400 hours x \$157/hour) for materials licensees. The total cost is \$1,500,920 annually (see Table 2).
- Total: The total burden and costs for recordkeeping and reporting are 67,460 hours (57,900 hours + 9,560 hours) and \$4,338,020 annually (\$2,837,100 + \$1,500,920).

13. Estimate of Other Additional Cost.

Not applicable.

14. Estimated Annualized Cost to the NRC

The NRC cost is incurred by inspectors reviewing the information on NRC Form 5, or its equivalent, and supporting records maintained by licensees. Annually, 260 hours of inspection time is spent reviewing such records, at an average of 2.5 hours for each of the 104 reactor sites. In addition, 2,249 hours of inspection time is spent reviewing such records at average of 0.5 hours for each of the 4,498 materials licensees. Annually, the total time spent reviewing these records is approximately 2,249 hours. The annual cost for reactor inspections to review these forms is \$40,820 (260 x \$157/hour) and the annual cost for materials inspections to review these forms is \$353,093 (2,249 hours x \$157/hour). Annually the total inspection cost is approximately \$393,913 (see Table 3). These costs are fully recovered through fee assessments to NRC licensees pursuant to 10 CFR Parts 170 and 171.

15. Reasons for Change in Burden

The estimated burden has increased from 66,682 (55,242 recordkeeping and 11,440 reporting) to 67,460 (57,900 recordkeeping and 9,560 reporting). The increase in recordkeeping is due to a increase in the total number of individuals monitored at materials licensees who do not have to report to the NRC, but are still required to keep appropriate records. The decrease in reporting is due to a decrease in number of materials licensees reporting to the NRC.

The estimated total cost increased slightly from \$4,201,890 to 4,338,020. The decrease in number of materials licensees reporting was offset by an increase in the total number of individuals monitored (increasing recordingkeeping burden) and an increase in the hourly rate for professional staff time from \$150/hour to \$157/hour.

16. Publication for Statistical Use

This Form is not published for statistical use.

17. Reason for Not Displaying the Expiration Date.

The requirement will be contained in a regulation. Amending the Code of Federal Regulations to display information that, in an annual publication, could become out of date would confuse the public.

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.

TABLE 1  
 INFORMATION COLLECTION BURDEN  
 ASSOCIATED WITH NRC FORM 5

NUMBER OF RECORDS	BURDEN HOURS/ RECORDS	ANNUAL BURDEN HOURS	ANNUAL COST (\$45/HOUR)
175,456	0.33	57,900	\$2,837,100

TABLE 2  
 REPORTING INFORMATION COLLECTION BURDEN  
 ASSOCIATED WITH NRC FORM 5

NUMBER OF RESPONDENTS		BURDEN HOURS PER RESPONSE	ANNUAL BURDEN HOURS	COST PER STAFF HOUR	ANNUAL COST
Reactors	104	40	4,160	\$157	\$653,120
Materials	135	40	5,400	\$157	\$847,800
Totals	239		9,560		\$1,500,920

TABLE 3  
 ESTIMATED ANNUALIZED COST TO THE NRC  
 FOR REVIEW OF REPORTS AND CONDUCT OF INSPECTIONS  
 ASSOCIATED WITH NRC FORM 5

FORM 5	NUMBER OF RESPONDENTS	STAFF HOURS /LICENSEE	STAFF HOURS	COST/HOUR	NRC COST
Reactors	104	2.5	260	\$157	\$40,820
Materials	4,498	0.5	2,249	\$157	\$353,093
Total	4,602		2,509		\$393,913