

**SUPPORTING STATEMENT FOR
NUCLEAR FUEL DATA FORM (FORM RW-859)
OMB Number 1901-0287**

Introduction:

The information collection number 1901-0287 was discontinued on February 28, 2005. A reinstatement for a three-year clearance is requested of the Office of Management and Budget (OMB) for the information requirements set forth in the revised "Nuclear Fuel Data Survey," Form RW-859. This form will be used by all owners of commercial nuclear reactors, including operating reactors, shutdown reactors, and those under construction, and other owners of spent nuclear fuel. The current proposed actions are a three-year clearance, and reinstatement with revisions of the previous data collection, Form RW-859.

The redesigned form continues the collection of the data/information required by the Office of Civilian and Radioactive Waste Management (OCRWM). Data collected includes: data on reactors and their projected fuel discharges; historical fuel discharge data (including special fuel forms); pool capacities and inventories; and non-fuel data relevant to OCRWM needs.

The following changes have been made to the previous version of the form:

- The redesign simplifies the process of data collection for both the respondents and the DOE. The redesign enhances DOE's ability to accept data from responses through electronic data transfer in the respondent's native format. This will reduce the burden on respondents and will increase data quality.
- The redesign collects all discharged fuel data in a single survey section. The redesign consolidated the collection of basic fuel data (enrichment, weight, burnup, and discharge data) for all fuel. The redesign continues to collect specific data on special fuel forms (e.g., canistered fuel, failed fuel, fuel rods and pieces, etc.), but does so as a supplement to basic fuel data, rather than in separate sections as was done in previous surveys. This will help to ensure consistent, non-repetitive data on all fuel. It should make reporting more logical and will reduce respondent burden.
- The redesign increased the visibility of storage facilities as independent entities. Respondents will be requested to provide a separate contact for each storage facility.
- The redesign uses a revised collection methodology to eliminate duplicative contact information. This methodology collects contact information once for an individual. For subsequent references (for other reactors or storage facilities), the redesign allows selection of the contact person by name, rather than requiring separate data entry for each occurrence. This will minimize data entry errors and will reduce the burden on respondents.
- The redesign is structured to minimize the impacts of changes on the supporting database and associated software. This maintains the look and feel of the current system and provides incremental improvements without requiring outside programming support. Increased utilization of Windows-based technology (dropdown list boxes, check boxes, and radio buttons) decreases data entry errors and simplifies DOE's ability to develop automated tools that help to verify the consistency/quality of submitted data. These additions enhance existing procedures by increasing standardization and automating data quality and consistency checks.

The information collection proposed in this supporting statement has been reviewed in light of applicable information quality guidelines. It has been determined that the information will be collected, maintained, and used in a manner consistent with the OMB, DOE, and EIA information quality guidelines.

A. Justification

1. Legal Authority

The authority for this mandatory data collection is provided by the following provisions:

- a. Section 13(b), 15 U.S.C. §772(b), of the Federal Energy Administration Act of 1974 (FEA Act), Public Law 93-275, which states:

"All persons owning or operating facilities or business premises who are engaged in any phase of energy supply or major energy consumption shall make available to the [Secretary] such information and periodic reports, records, documents, and other data relating to the purposes of this Act, including full identification of all data and projections as to source, time, and methodology of development, as the [Secretary] may prescribe by regulation or order as necessary or appropriate for the proper exercise of functions under this Act."

- b. Section 5(b), 15 U.S.C. §764(b), of the FEA Act states that to the extent authorized by Section 5(a), the [Secretary] shall:

"(2) assess the adequacy of energy resources to meet demands in the immediate and longer range future for all sectors of the economy and for the general public;...

(9) collect, evaluate, assemble, and analyze energy information on reserves, production, demand, and related economic data;...

(12) perform such other functions as may be prescribed by law."

- c. As the authority for invoking Section 5(b) above, Section 5(a), 15 U.S.C. §764(a), of the FEA Act in turn states:

"Subject to the provisions and procedures set forth in this Act, the [Secretary] shall be responsible for such actions as are taken to assure that adequate provision is made to meet the energy needs of the Nation. To that end, he shall make such plans and direct and conduct such programs related to the production, conservation, use, control, distribution, rationing, and allocation of all forms of energy as are appropriate in connection with only those authorities or functions:

(1) specifically transferred to or vested in him by or pursuant to this Act;...

(3) otherwise specifically vested in the [Secretary] by the Congress."

- d. Authority for invoking Section 5(a) of the FEA Act is provided by Section 52, 15

U.S.C. §790a of the FEA Act, and the Nuclear Waste Policy Act of 1982, 42 U.S.C. §10101 et seq. Each of these laws defines types of data (directly or implicitly) which will be collected on the proposed form.

- (1) Section 52 (15 U.S.C. §790a) of the FEA Act states that it is the duty of the [Secretary] to:

"...establish a National Energy Information System (hereinafter,...the System) [which] shall...contain such information as is required to provide a description of energy supply and consumption...

(b)...the System shall contain such energy information as is necessary to carry out the Department's statistical and forecasting activities and shall include,...such energy information as is required to define and permit analysis of--

- (1) the institutional structure of the energy supply system including patterns of ownership and control of mineral fuel and nonmineral energy resources and the production, distribution, and marketing of mineral fuels and electricity;
 - (2) the consumption of mineral fuels, nonmineral energy resources, and electricity by such classes, sectors, and regions as may be appropriate for the purposes of this Act;...
 - (5) industrial, labor, and regional impacts of changes and patterns of energy supply and consumption."
- (2) The Nuclear Waste Policy Act (NWPA) of 1982, as amended, 42 U.S.C. §10101 et seq., requires that the Secretary develop and implement programs to dispose of spent nuclear fuel. This information is necessary to understand and explore the specific requirements of developing and conducting these programs, and thereby, to effectuate the purposes of the NWPA.

2. Needs and Uses of the Data

The Form RW-859 will collect: data on spent nuclear fuel inventories; storage capacities and storage plans for each wet and dry storage site; number of assemblies shipped or scheduled for shipment to another site; canister-specific data; uncanistered fuel data; and nonfuel components data. The data will be collected from owners of commercial nuclear reactors, including operating reactors, shutdown reactors, and those under construction, and from all other owners of spent nuclear fuel. The information obtained by the Form RW-859 is the original data upon which the OCRWM activities are based. A key requirement for the success of this program is an information system with detailed data on the quantity of radioactive waste material currently in storage at commercial nuclear facilities and the amount of additional waste likely to be produced over the operating lives of existing and planned nuclear reactors.

The detailed data collected on Form RW-859 are directly useful for assessing spent fuel storage requirements. The data can also constitute one of the inputs to the Spent Fuel Characteristics Data Base maintained by the Oak Ridge National Laboratory (ORNL). The discharge dates, assembly types, burnups, and initial enrichments are used by the ORNL to calculate the gamma, neutron, other radiation, and heat intensities for shielding design and thermal design of facilities and equipment, as well as the isotopic inventories of the fuel to be emplaced in the repository. The quantities and dimensions of nuclear fuel are used to size the facilities and equipment. Trends based on historical spent nuclear fuel data provided by the respondents are used by the DOE to estimate future discharges from U.S. commercial nuclear reactors and their characteristics. The projected need for additional spent fuel storage capacity is based on these estimated cumulative discharges, and on the estimated maximum storage capacity of both at-reactor and away-from-reactor storage facilities.

3. Technological Considerations

As in the past, the collection of data for the Form RW-859 will involve an update of previously reported data. Respondents will be provided with a compact disk (CD) containing their most recently reported data. Respondents will, therefore, be responsible for:

- verifying/certifying the correctness of the previously reported data, and
- updating data elements as appropriate using their subsequent reporting period data.

Respondents will be able to update and process all the data for the Form RW-859 on the CD which will be provided. A file on the CD will permit respondents to print a blank hardcopy of the form so that they can update the data by pen and ink if they choose this option. Data on permanently discharged fuel assemblies will be accepted in any readily available format (data base files, spreadsheets, etc.).

4. Efforts to Identify Duplication

Within EIA, there is no data collection similar to the form RW-859. As part of our review process, we seek to identify (through trade associations, private companies, and other government agencies), potential duplicate data, data that are no longer necessary or data that can be collected more efficiently in another survey. As appropriate, surveys are eliminated or revised (as are proposed here for the Form RW-859). The form has been revised to eliminate duplicate reporting of information and to eliminate data elements that have been shown not to be required by the government.

We have evaluated all known sources of data relating to nuclear waste and have found no other sources capable of providing the detailed data needed by this Federal government program. We have determined that other sources cannot replace or approximate the information provided because of differences in classification, inconsistency, incompleteness, infrequency, unavailability, or lack of coverage. Specifically, the NRC's Form 741 and Form 742 data do not maintain a connection to individual assembly identification number and do not collect fuel burnup data.

5. Provisions for Reducing Burden on Small Businesses

This collection of information does not involve small businesses or other small entities.

6. Consequences of Less Frequent Reporting

The EIA has implemented a less frequent reporting, collecting data on the Form RW-859 after a period of 3, 4, or 5 years (instead of the annual data collection conducted through 1995) as requested by the Office of Civilian Radioactive Waste Management. For the elements remaining on the Form RW-859, a less frequent reporting by respondents will reduce respondent burden somewhat by permitting all new data for the multiyear period to be reported at one time. The objective of the waste program is to provide for the permanent safe disposal of commercial spent fuel and high-level radioactive waste at disposal facilities operated by the DOE. A key requirement for the success of this program is an information system with detailed data on the quantity of radioactive waste material currently in storage at commercial nuclear facilities and the amount of additional waste likely to be produced over the lives of the existing and planned nuclear reactors.

7. Compliance with 5 CFR 1320.6

The data are being collected consistent with the guidelines in 5 CFR 1320.5.

8. Consultation Outside the Agency

On June 14, 2006, a Notice of the Proposed Revisions to the Form RW-859 was published in the Federal Register (71 FR 34332). Written comments regarding this Notice were required within 60 days. However, no comments were received during this period. EIA also submitted a Federal Register on September 6, 2006, (71 FR 52537) to notify the public that this proposed information collection was submitted to the Office of Management and Budget for review.

9. Payment to Respondents

There is no provision for payments to respondents.

10. Provisions Regarding Confidentiality

The data collected by this form are not considered to be confidential.

11. Questions of a Sensitive Nature

There are no questions of a sensitive nature.

12. Estimate of Respondent Burden and Costs

It is not clear at this time how frequently the Office of Civilian Radioactive Waste Management will want this data to be updated. The Form RW-859 will probably not be sent out for

collection in 2006. The cost and burden data in Sections 12 through 15 assume a collection once every five years. It is estimated that the average time required to complete the Form RW-859 will be 40 hours.

(52 respondents X 2.44 reports/respondent X 40 hours/report = 5,075 hours)

Given the burden above for this collection and assuming it will be collected once every five years, the annual burden is estimated to be 5075/5 or 1015 hours per year.

Annualized cost for the Form RW-859 (based on one collection every 5 years):

\$289,275 (5,075 hours X \$57/hour)/5 years = \$57,855/year

13. Annual Cost Burden to Respondents:

There is no (a) additional capital and start-up cost component or (b) total operation and maintenance and purchases of services components associated with this data collection.

14. Annualized Cost to the Federal Government

The estimated annual cost to the Federal Government for the Form RW-859 data collection is shown below. The figures below are developed on the assumption that the Form RW-859 data will be collected only once during the OMB approval period. The data collection in 2008 will cover a five year survey period.

| | | |
|-----|--|-------------------|
| (a) | Development and Maintenance Cost | |
| | • Respondent list development/maintenance | \$ 2,000 |
| | • Pretest/consultants | N/A |
| | • Internal, Form Design, and OMB clearance | \$ 30,000 |
| | • Development/maintenance of collection | <u>\$ 75,000</u> |
| | Total development/maintenance cost | \$ 107,000 |
| (b) | Collection Cost | |
| | • Printing | \$ 2,000 |
| | • Mailing/enumeration cost | \$ 1,000 |
| | • Transmission and control cost | <u>\$ 5,000</u> |
| | Total collection cost | \$ 8,000 |
| (c) | Processing Cost | |
| | (assuming one data collection in five year period) | |
| | • Editing | \$100,000 |
| | • Coding | \$ 25,000 |
| | • Tabulation | <u>\$140,000</u> |
| | Total processing cost | \$ 265,000 |
| (d) | Analysis Cost | |
| | (assuming one data collection in five year period) | \$ 190,000 |

| | | |
|-----|--|-------------------------|
| (e) | Other Costs (includes requests for CD's containing RW-859 data) | \$ <u>25,000</u> |
| | Total cost for information collection assuming one data collection in a five year period (the sum of items a through e) | \$ 595,000 |
| | Total annual cost for information collection | \$ 119,000 |

15. Summary of Changes in Respondent Burden

Due to this information collection request being a reinstatement, this is an increase of 1,015 per year respondent burden. However, since prior collections, the nuclear waste disposal program has been reduced due to reduced frequency of collection and the simplification of the Form RW-859.

16. Schedule of Data Collection and Publication

| | |
|--------------------------------|----------|
| Mail out Form RW-859 | 11/26/07 |
| Form RW-859 Forms Due By | 02/15/08 |
| 1st Preliminary Data Base Tape | 05/30/08 |
| Final Data Base Tape | 09/26/08 |

. The schedule shown here assumes that the data will be collected in 2008.

17. Expiration Date

The OMB expiration date will be displayed on the Form RW-859.

18. Certification Statement

There are no exceptions to the Certification statement.