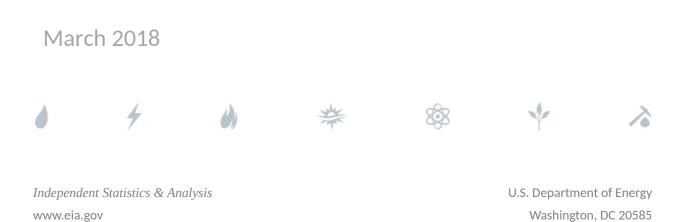


Independent Statistics & Analysis U.S. Energy Information Administration

# Supporting Statement A for Nuclear Fuel Data Survey (Form GC-859)

Form GC-859, Nuclear Fuel Data Survey

OMB No. 1905-0287



U.S. Energy Information Administration | Supporting Statement A for Nuclear Fuel Data Survey (Form GC-859)

# **Table of Contents**

Part A: Justification1
Introduction1
A.1. Legal Justification3
A.2. Needs and Uses of Data5
A.3. Use of Technology6
A.4. Efforts to Identify Duplication6
A.5. Provisions for Reducing Burden on Small Businesses7
A.6. Consequences of Less-Frequent Reporting7
A.7. Compliance with 5 CFR 1320.57
A.8. Summary of Consultations Outside of the Agency7
A.9. Payments or Gifts to Respondents8
A.10. Provisions for Protection of Information8
A.11. Justification for Sensitive Questions8
A.12. Estimate of Respondent Burden Hours and Cost9
A.13. Annual Cost to the Federal Government9
A.14. Changes in Burden11
A.15. Reasons for Changes in Burden11
A.16. Collection, Tabulation, and Publication Plans12
A.17. OMB Number and Expiration Date12
A.18. Certification Statement

# **Part A: Justification**

## Introduction

The U.S. Energy Information Administration (EIA) is the statistical and analytical agency within the U.S. Department of Energy (DOE). It collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding regarding energy and its interaction with the economy and the environment.

This request is for the Office of Management and Budget (OMB) approval of a three-year extension to Form GC-859 *Nuclear Fuel Data Survey*. EIA is submitting this form to OMB pursuant to the Paperwork Reduction Act of 1995. The Nuclear Waste Policy Act of 1982 (42 U.S.C. §10101 et seq.) requires that the DOE enter into Standard Contracts with all generators or owners of spent nuclear fuel and high-level radioactive waste of domestic origin. To meet this policy, Form GC-859 collects information on nuclear fuel use and spent fuel discharges from all utilities that operate commercial nuclear reactors and from all others that possess irradiated fuel from commercial nuclear reactors. The data collected includes reactor license information, reactor cycle data, data on permanently discharged fuel, historical assembly cycle data, special fuel forms, data on canisters and their contents, pool and dry storage capacities and inventories, nonfuel components data, and data on Greater Than Class C (GTCC) Low-Level Radioactive Waste (LLRW).

EIA previously collected this information on Form RW-859 for the DOE Office of Civilian Radioactive Waste Management (OCRWM). Eventually, information collection activities were transferred to the Office of Standard Contract Management, which was created within the Office of the General Counsel (GC). As a result, the survey number was changed from Form RW-859 to Form GC-859 for the 2013 collection.

Form GC-859 was last collected in 2013 and was discontinued January 2016. The survey containing data from June 30, 2013 is the last collected and most recent data on spent nuclear fuel discharges and storage available within DOE.

The 2018 version of Form GC-859 has additional data requirements compared to the previously approved ICR. The additional data are essential for personnel from DOE Office of Nuclear Energy (NE), DOE Office of Environmental Management (EM), and the national laboratories to meet their research objectives of developing a range of options and supporting analyses that facilitate informed choices about how best to manage spent nuclear fuel. Changes to Form GC-859 from the last data collection in 2013 include the following:

- For fuel discharged from July 1, 2013 December 31, 2017, collection of fuel assembly type codes in Section C.1.1 will replace fuel manufacturer and lattice size used in the 2013 GC-859. Instructions on determining the fuel assembly type code are added to Sections C.1 and C.1.1, and Appendix E contains a listing of applicable codes by plant and fuel design.
- Since fuel assembly type codes were last collected in the 2003 RW-859, data from January 1, 2003 to June 30, 2013 will be collected in new Section C.1.3. The input required by respondents is simplified (as compared to entering data for each assembly) by providing a choice of fuel type codes based on the reactor design, previously used fuel types, and reload cycle. Identification of fuel assembly type provides significantly more information about the fuel than just

manufacturer and lattice size. The information derived from identifying a fuel assembly type includes cladding material, fuel features, materials of construction, fuel rod diameter, and assembly weight ranges.

- "Cumulative burnup for each cycle," for each assembly is added to Section C.1.2 of the survey. However, it is voluntary for respondents to report all data in Section C.1.2. Under the Standard Contract, this type of cycle information is only required 60 days prior to the scheduled transportation date (which is currently unknown). This data provides the actual fuel assembly specific burnup per cycle, which is essential for accurate computational representations of the power history of the fuel assembly while in the reactor. Assembly burnup data by cycle is used to calculate discharged fuel characteristics and obtain fundamental parameters needed for spent fuel safety analyses.
- Collection of all discharged fuel that is shipped or transferred to other storage sites (since January 1, 2003) is added to the survey as Section C.1.4. This information was last collected in the 2003 RW-859 and allows the tracking of all spent nuclear fuel discharged by commercial reactors, regardless of current ownership or transit status.
- Section C.2 'Projected Assembly Discharges' is deleted as this information is no longer needed by DOE Office of Nuclear Energy for analysis.
- Section C.3.3.1 requests information for consolidated, reconstituted, reconstructed fuel assemblies. A drop-down menu is provided to select from the three choices of fuel assemblies.
- A note is added in Section D.3.2 'Multi-Assembly Canisters/Casks Inventory' to capture deviations from standard operating procedures related to drying, backfilling, leak testing, or pad transfer processes.
- Dry cask loading pattern maps with orientation details are added to Section D.3.2 of the survey. For each canister/cask model, respondents provide or reference a loading map that clearly indicates identifiers for basket cell locations relative to fixed drain and vent port locations. For systems stored horizontally, the map indicates which direction is up when placed in a horizontal storage module. The dry cask loading pattern data facilitates detailed as-loaded analyses and enables the quantification of realistic safety margins and conditions.
- Section E.2 'Non-fuel Components Integral to an Assembly' is deleted and the data on non-fuel components integral to an assembly is now part of Section C.1.1.
- Schedule G: 'Comments' is deleted. Comments are collected after each section.
- A copy of Standard Contract (10 CFR 961.11) Appendix E 'General Specifications' is added to the survey as Appendix B for the convenience of the respondents.
- The following terms have either been added or updated to match the definition prescribed by the Standard Contract; Canister, DOE Facility, Failed Fuel, Multi-Assembly Canister/Cask, Non-fuel Component Identifier, Non-standard Fuel and Reconstructed Assembly.
- Minor modifications to the form and clarifications to the instructions were made based on suggested improvements to the previous GC-859 data collection.
- The header on the cover page is updated to include the DOE and EIA logos.

•

# A.1. Legal Justification

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

a. 15 U.S.C. §772(b) 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 Administrator 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 Administrator may prescribe by regulation or order as necessary or appropriate for the proper exercise of functions under this chapter."

b. 15 U.S.C. §764(b) states that to the extent authorized by subsection (a), the Administrator shall:

(1) advise the President and the Congress with respect to the establishment of a comprehensive national energy policy in relation to the energy matters for which the Administration has responsibility, and, in coordination with the Secretary of State, the integration of domestic and foreign policies relating to energy resource management;

(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;

(3) develop effective arrangements for the participation of State and local governments in the resolution of energy problems;

(4) develop plans and programs for dealing with energy production shortages; ...

(5) promote stability in energy prices to the consumer, promote free and open competition in all aspects of the energy field, prevent unreasonable profits within the various segments of the energy industry, and promote free enterprise;

(6) assure that energy programs are designed and implemented in a fair and efficient manner so as to minimize hardship and inequity while assuring that the priority needs of the Nation are met;

(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 subsection (b), above, **15 U.S.C. §764(a)** states:
  - a. "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 chapter;

(3) otherwise specifically vested in the Administrator by the Congress."

- d. Additional authority for this information collection is provided by 15 U.S.C. §790(a) which states;
  - a. "It shall be the duty of the Director to establish a National Energy Information System... [which] shall contain such information as is required to provide a description of and facilitate analysis of energy supply and consumption within and affecting the United States on the basis of such geographic areas and economic sectors as may be appropriate... to meet adequately the needs of..."

(1) the Department of Energy in carrying out its lawful functions;

(2) the Congress;

(3) other officers and employees of the United States in whom have been vested, or to whom have been delegated energy-related policy decision-making responsibilities;

(4) the States to the extent required by the Natural Gas Act [15 U.S.C. §717 et seq.] and the Federal Power Act [16 U.S.C. §791a et seq.].

b. "At a minimum, the System shall contain such energy information as is necessary to carry out the Administration'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 non-mineral energy resources and the production, distribution, and marketing of mineral fuels and electricity;

(2) the consumption of mineral fuels, non-mineral energy resources, and electricity by such classes, sectors, and regions as may be appropriate for the purposes of this chapter;

(5) industrial, labor, and regional impacts of changes in patterns of energy supply and consumption;

(6) international aspects, economic and otherwise, of the evolving energy situation; and

(7) long-term relationships between energy supply and consumption in the United States and world communities."

e. Authority for the specific collection of nuclear fuel data comes from the Nuclear Waste Policy Act (NWPA) of 1982, Public Law 97-425, as codified in **42 U.S.C. §10222 (a)(1)** states:

CONTRACTS (1)... "The Secretary is authorized to enter into contracts with any person who generates or holds title to high-level radioactive waste, or spent nuclear fuel, of domestic origin for the acceptance of title, subsequent transportation, and disposal of such waste or spent fuel."

- f. The full Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste, 10 CFR Part 961, can be viewed at:
  - a. http://energy.gov/sites/prod/files/gcprod/documents/New Standard Contract.pdf
- g. Subpart B, Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste, Part 961.11, Article IV, Responsibility of the Parties, states:
  - a. PURCHASER'S RESPONSIBILITIES (1) Discharge Information
    - i. "On an annual basis, commencing October 1, 1983, the Purchaser shall provide DOE with information on actual discharges to date and projected discharges for the next discharges to date and projected discharges for the next ten (10) years in the form and content set forth in Appendix B, annexed hereto and made a part hereof. The information to be provided will include estimates and projections and will not be Purchaser's firm commitment with respect to discharges or deliveries.
    - ii. No later than October 1, 1983, the Purchaser shall provide DOE with specific information on:
      - 1. Total spent nuclear fuel inventory as of April 7, 1983;
      - Total number of fuel assemblies removed from the particular reactor core prior to April 7, 1983 for which there are plans for reinsertion in the core, indicating the current planned dates for reinsertion in the core. Estimates of the burned and unburned portion of each individual assembly are to be provided."

#### A.2. Needs and Uses of Data

The information obtained by Form GC-859 is the original data upon which the Office of Standard Contract Management 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. 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.

The detailed data collected on Form GC-859 are critical for assessing spent fuel storage requirements. The data also constitute inputs to a number of nuclear fuel data bases maintained by the DOE National Laboratories. For example, discharge dates, assembly types, burnups, and initial enrichments are used by analysts 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 a future repository. The quantities and dimensions of nuclear fuel are used to estimate the size of the facilities and capacity of the 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.

The information is also used in publications by various stakeholders for a range of uses and purposes.

- DOE/RW-0567: Acceptance Priority Ranking (APR) and Annual Capacity Report, July 2004
- <u>Department of Nuclear, Plasma, and Radiological Engineering, University of Illinois at Urbana-</u> <u>Champaign: Benefits of Siting a Borehole Repository on Non-Operating Nuclear Facility</u>
- DOE Report FCRD- NFST-2016-000478: Preliminary Evaluation of Removing Used Nuclear Fuel from Shutdown Sites, September 30, 2016

#### A.3. Use of Technology

EIA continues to improve survey reporting options through the use of information technology. Form GC-859 uses an automated software package for filing survey data and is sent to respondents on a CD or DVD. The system was developed in Microsoft Access and aids in the loading of data from respondent files into the survey system.

Respondents may use the software package to submit data in the provided Microsoft Access survey database or any commonly readable, present-day electronic spreadsheet file format. Providing two reporting options reduces respondent burden in filling out the large amounts of data required on the discharged assemblies, historical cycles, and canisters data section of the form. An option in the software permits respondents to print a hardcopy of the form or individual sections of the form.

## A.4. Efforts to Identify Duplication

As part of a continuing effort to avoid duplication, EIA routinely reviews and evaluates information from a variety of sources, including other federal agencies, industry trade associations, state governments, and commercial information services to identify instances of duplication. The form is designed to eliminate duplicate reporting of information and eliminate data elements not required by the government.

EIA evaluated all known sources of data relating to nuclear waste and found that the U.S. Nuclear Regulatory Commission (NRC) collects information on shipments of fuel assemblages that is similar to information reported in section C.1.4 of Form GC-859. After examining the contents of NRC's data files, DOE determined that this other source cannot replace or approximate the information provided in section C.1.4 because of differences in classification, inconsistency, incompleteness, infrequency, availability, or lack of coverage.

NRC regulations require licensees who ship, receive, or adjust their physical inventory of source or special nuclear material (SNM) to document and report such activities using DOE/NRC Form 741 under OMB Control No. 3150-0003. EIA assessed the utility of the data file generated from information collected on DOE/NRC Form 741 *Nuclear Material Transaction Report* by submitting three separate data

queries. The results showed that the DOE/NRC Form 741 data file does not contain the level of detail that is needed and is not an appropriate substitute for the information collected by Form GC-859.

There are several reasons for this. DOE/NRC 741 data do not maintain a connection between radioactive material with individual fuel assembly identification number and fuel burnup data. This data linkage with assembly identifier is important because it indicates the level of radioactivity from a spent fuel assembly which determines requirements for safe storage design. NRC Form 741 does not collect assembly identification number. It is not a mandatory data element that needs to be reported for discharged fuel assemblies that are shipped or transferred within the United States. Without the assembly identification number, DOE/NRC Form 741 data cannot be used as a reliable data source to replace GC-859 Section C.1.4 'Shipments/Transfers of Discharged Fuel'.

Assembly identification number is one of the most important parameters collected in GC-859 since it provides a unique set of alphanumeric characters that identifies a fuel assembly for a specific reactor site. Assembly identification numbers are used extensively in GC-859 Schedule C 'Fuel Data' and Schedule D 'Storage Facility Data'.

EIA also examined DOE/NRC Form 742 *Material Balance Report*. This material accountability report tracks items by weight. It does not track fuel assemblies and is also not a valid data source to replace GC-859 Section C.1.4 'Shipments/Transfers of Discharged Fuel'.

#### A.5. Provisions for Reducing Burden on Small Businesses

This collection of information does not involve small businesses or other small entities. All respondents are either major commercial utilities or operating companies.

#### A.6. Consequences of Less-Frequent Reporting

The Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste required that owners and operators of commercial nuclear power plants report certain data annually to DOE. The predecessor to Form GC-859 was collected annually for the years 1983 through 1995. DOE subsequently determined that new data was needed only every three years and went to this less frequent reporting schedule. The last GC-859 data was collected for a 10-year period between December 31, 2002 and June 30, 2013. The proposed GC-859 will collect data between July 1, 2013 and December 31, 2017.

The implementation of less frequent reporting reduces respondent burden somewhat by permitting all new data for the multiyear period to be reported at one time. DOE plans to collect this information using Form GC-859 on a triennial basis.

#### A.7. Compliance with 5 CFR 1320.5

The data are being collected in accordance with all guidelines set forth in 5 C.F.R. 1320.5.

#### A.8. Summary of Consultations Outside of the Agency

During 2016 and 2017, a series of working group meetings were held throughout the form design process among the current contractors, staff from DOE Offices including the Energy Information

Administration (EIA), the Offices of the General Counsel (GC), Nuclear Energy (NE), Environmental Management (EM), and the DOE national laboratories. A series of draft and revised mockups of the proposed Form GC-859 were developed for use in these meetings. All issues regarding the content of the form were resolved during these meetings and subsequent dialog.

On March 29, 2017 a meeting with nuclear industry respondents and the Nuclear Energy Institute (NEI) was held to review and discuss the draft version of the survey form. Feedback and comments from this meeting are incorporated into the design of the survey form and for the estimated burden hours.

#### A.9. Payments or Gifts to Respondents

There are no provisions for payments to respondents.

#### A.10. Provisions for Protection of Information

The information reported on Form GC-859 will be protected and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the Department of Energy (DOE) regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905.

An additional level of protection is provided by Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste. In accordance with the terms of the contract, companies are allowed to mark any data supplied under the contract as "proprietary data." This is covered in 10 C.F.R. 961.11, Article XXI - Rights in Technical Data. Typically, only projected fuel cycle data are considered proprietary. For the 2018 survey, Section C.2 'Projected Assembly Discharges' has been deleted.

Despite the above protections, the Federal Energy Administration Act requires EIA to provide companyspecific data to other Federal agencies when requested for official use. The information reported on this form may also be made available, upon request, to another DOE component; to any Committee of Congress, the Government Accountability Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any non-statistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

EIA also has an agreement to provide company-specific information to the DOE Office of Standard Contract Management, within the Office of the General Counsel. The data are used for administrative, regulatory, and adjudicatory purposes only. The agreement requires that the information is protected and not disclosed to the public as set forth above. However, disclosure limitation procedures are not applied to the published aggregate statistical data derived from this survey's information. There may be some statistics that are based on data from fewer than three respondents, or that are dominated by data from one or two large respondents. In these cases, it may be possible for a knowledgeable person to closely estimate the information reported by a specific respondent.

#### A.11. Justification for Sensitive Questions

There are no questions of a sensitive nature in these data collections.

# A.12. Estimate of Respondent Burden Hours and Cost

Current plans call for the survey to be collected once every three to five years, so respondents will only file the Form GC-859 once over the three-year approval period, for an average reporting frequency of 1/3 of a response per year from each respondent. For the three-year approval period, the annual estimate is 125/3 = 42 responses. The estimated number of annual burden hours of 3747 per year is obtained by multiplying the burden per response for each category by the corresponding number of annual responses and adding the burden estimates for each category. Based on the estimated rate of \$73.66 per hour for employees who would complete these forms, the total annual respondent cost for all forms is estimated to be:

#### \$73.66/hour x 3747 hours/year = \$276,004

An average cost per hour of \$73.66 is used because that is the average loaded (salary plus benefits) cost for an EIA employee assigned to data survey work. EIA assumes that the survey respondent workforce completing surveys for EIA is comparable with EIA workforce.

There are no additional capital, start-up, or operating and maintenance costs to respondents beyond the cost of the hours described in Item A.12. The only costs are for the burden hours required to report on the Form GC-859.

EIA Form Number/Title	Annual Reporting Frequency	Number of Respondents		Burden Hours Per Response	Annual Burden Hours
Form GC–859, ''Nuclear Fuel Data Survey'' Operating Nuclear Reactors	0.33	99	33	100.00	3,300
Form GC–859, ''Nuclear Fuel Data Survey'' Permanently Shut Down Nuclear Reactors	0.33	15	5	60.00	300
Form GC–859, ''Nuclear Fuel Data Survey'' Storage Facilities	0.33	7	2	40.00	93
Form GC–859, ''Nuclear Fuel Data Survey'' Research/Test Reactors	0.33	4	1	40.00	53
TOTAL		125	42		3.747

# **Table A1. Estimated Respondent Burden**

## A.13. Annual Cost to the Federal Government

The estimated annual cost to the Federal Government for the Form GC-859 data collection is shown below. The figures below are developed on the assumption that the Form GC-859 data will be collected only once during the OMB approval period.

The estimated total cost to the Federal Government for Form GC-859, is \$1,535,169. This includes the cost of 60% time of one EIA employee for three years and contractor costs. This represents an annual cost for the three-year clearance period of \$511,723 per year.

TOTAL COST TO THE FEDERAL GOVERNM (ESTIMATED)	ANNUAL COST TO THE FEDERAL GOVERNMENT, GC-859 (ESTIMATED)	
Data Collection and Processing	\$831,323	\$277,108.00
System Maintenance and Enhancement	\$703,846	\$234,615.00
Total	\$1,535,169	\$511,723.00

# A.14. Changes in Burden

The estimated change in annual burden is 642 burden hours (increase of approximately 21%).

Table A2. Changes in Burden														
									Annual Number of Repsonses			Annual Burden Hours		
Annual Reporting Frequency	Number of Respondents (Previously Approved)	Number of Respondents (Requested)	Annual Number of Responses (Previously Approved)	Annual Number of Responses (Requested)	Burden Hours Per Response (Previously Approved)	Per Response				Change Due to Adjustment in Agency Estimate	Adjustment	Change Due to Agency Discretion	Change Due to Adjustment in Agency Estimate	Adjustment
0.3	3 138	125	46	42	67.5	89.9	3,105	3747	0	-4	-4	0	642	642
			0	0			0	0	0		0	0		0
			0	0			0	0	0		0	0		0
	138	125	46	42			3,105	3,747	0	-4	-4	0	642	642

U.S. Energy Information Administration | Supporting Statement A for Nuclear Fuel Data Survey (Form GC-859)

# A.15. Reasons for Changes in Burden

Historically, the total burden for completing the survey has varied from 1,000 to 5,000 hours per year depending upon the respondent category and based on the time period between data collection cycles and the specific data being collected. Feedback from respondents to the 2013 Form GC-859 was that the estimated burden was significantly underestimated for operating and shutdown reactors. This was due to the collection covering an unusually large time period of 10 years, use of a new software system, and increases in the amount of data collected.

For the 2017 proposed survey, the burden is adjusted to account for feedback from the respondents who completed the 2013 survey, the amount of data to be collected during this cycle (4.5 years), and the changes to the 2017 survey form (both additions and deletions of data elements). The most important reason for the change in burden is the industry feedback received during the GC-859 meeting on March 29, 2017. After reviewing the 2017 Form GC-859, feedback from the meeting with industry and the Nuclear Energy Institute (NEI) included the following key points:

- An increase of 20 hours from the 2013 survey for each category of respondent was deemed accurate by all the present parties. The burden for operating reactors increased from 80 hours to 100 hours, from 40 hours to 60 hours for permanently shut down reactors, and from 20 to 40 hours for storage facilities and research reactors as discussed between General Council (GC), NEI and industry representatives.
- Industry representatives at the March 28, 2017 meeting agreed that 40 hours was a
  reasonable and accurate burden estimate for storage and research reactors. When a nuclear
  reactor shuts down, all operations stop and personnel not directly involved in the physical
  storage of the spent reactor fuel are reassigned (i.e., nuclear engineers, fuel engineers, or
  similar subject matter experts). Personnel assigned to the storage facility typically include
  security officers, inventory and storage specialists, and possibly a project manager. The
  increase in burden hours compensates for the fact that the onsite personnel who fill out
  Form GC-859 need time to gather information from others who no longer work on-site.

After considering these factors, the burden hours per response for each type of respondent is increased by 20 hours (operating reactors: 100 hours, shutdown reactors: 60 hours, storage sites: 40 hours, and test/research reactors: 40 hours). This makes the weighted average burden approximately 90 hours based on an estimated 125 respondents, an increase from the weighted average of 67.5 hours in 2013 for 138 respondents.

Change in overall burden was also influenced by changes in respondents participating in Form GC-859. The changes reflect current market conditions affecting the nuclear industry. 5 operating reactors closed and ceased operations. Shutdown reactors decreased by 1 and storage facilities decreased by 1. 6 research/test reactors are considered out of scope for this survey and are no longer required to complete Form GC-859. The loss of these facilities reduced the total of survey respondents by 13 from 138 to 125.

# A.16. Collection, Tabulation, and Publication Plans

The current schedule for the collection and processing of the Form GC-859 survey is as follows:

Survey files sent to respondents	4/30/2018
Surveys due back at DOE	8/31/2018
Draft Form GC-859 Database	12/13/2018
Final Form GC-859 Database	3/15/2019

Data collected from the GC-859 will be used to update <u>Spent Nuclear Fuel</u> related information presented on the EIA website.

# A.17. OMB Number and Expiration Date

The expiration date and OMB control number (1901-0287) will be displayed on the survey form.

# A.18. Certification Statement

There are no exceptions to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submissions," of OMB Form 83-I. This information collection request complies with 5 CFR 1320.9.

The Department has determined no Part B is needed for this ICR because this information collection is not a statistical collection and does not require statistical sampling, estimation, or imputation methodologies.