

DRAFT SUPPORTING STATEMENT
FOR

SCHEDULING INFORMATION FOR THE LICENSING OF ACCIDENT TOLERANT, HIGHER
BURNUP, AND INCREASED ENRICHMENT FUELS

(3150-0258)

EXTENSION

DESCRIPTION OF THE INFORMATION COLLECTION

The accident tolerant fuel (ATF) program is a joint effort between the U.S. nuclear industry and the U.S. Department of Energy to design and pursue approval of various fuel types with enhanced accident tolerance, while also reducing overall plant operating costs. In addition to accident tolerant concepts, the ATF program includes development of technologies that would extend fuel burnup and enrichment limits beyond currently authorized levels. In order to deploy these new technologies, the industry will need to seek authorization for various activities throughout the fuel cycle, from fuel fabrication, transportation, and storage, to installation and utilization in a reactor. In order to support the timely processing of licensing activities needed to support the deployment of these new technologies, the NRC is seeking scheduling information for licensing submittals from all holders of operating licenses for nuclear power reactors under the provisions of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," or holders of a combined license under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," except those that have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel; all holders of licenses and potential applicants for a fuel cycle facility under the provisions of 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material;" and all holders of licenses and Certificates of Compliance (CoC) and potential applicants for transportation and storage systems under the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material," and 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste." This information will allow the NRC to better allocate its resources to support the activities associated with licensing these technologies while being better able to meet the industry's desired timeline.

A. JUSTIFICATION

1. Need for the Collection of Information

Given the stated goals of the program, ATF, higher burnup, and increased enrichment fuels are expected to be widely deployed throughout the current operating fleet. In addition to the licensing activities necessary to approve the in-reactor use of these fuels, other regulatory approvals will be necessary to support the fabrication, transportation, and storage of ATF, higher burnup, and increased enrichment fuels. Given the expected volume of applications for regulatory review and the potential complexity associated with reviewing the requests, the NRC needs additional information on industry plans for deploying these technologies in order to better allocate resources to support the industry's efforts.

NRC has the authority to request this information under Section 161c of the Atomic Energy Act of 1954, which states, "In the performance of its functions the Commission is authorized to...make such studies and investigations, obtain such information, and hold such meetings or hearings as the Commission may deem necessary or proper to assist it in exercising any authority provided in this Act, or in the administration or enforcement of this Act, or any regulations or orders issued thereunder."

2. Agency Use and Practical Utility of Information

The information gathered by this request will allow the NRC to better allocate its resources to support the activities leading up to and including the review of an ATF submittal. Additionally, this information collection seeks to promote early and frequent communication between the NRC and respondents on topics such as ATF experimental testing programs, data collection, and industry schedules. Communication between both parties promotes the submission of high quality and complete applications. Incomplete or insufficient applications increase the risk of schedule delays in deployment of ATF designs.

3. Reduction of Burden Through Information Technology

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. Electronic transmission and submittal of documents can be accomplished via the following avenues: The Electronic Submittals application, which is available from the NRC's "Electronic Submittals" Web page, by Optical Storage Media (OSM) (e.g. CD-ROM, DVD), by facsimile or by e-mail. The Electronic Submittals application allows electronic transmission of information to the NRC pertaining to licensing actions, associated hearings, and other regulatory matters. The application ensures information sent to the NRC via the Internet is secure and unaltered during transmission. It operates 24 hours a day, except when it is taken down for scheduled maintenance. The application serves as a secure portal respondents may use to transmit documents to the NRC.

It is estimated that approximately 100% of the potential responses are filed electronically.

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

None of the potential applicants responding to this collection are small businesses.

6. Consequences to Federal Program or Policy Activities if the Collection Is Not Conducted or Is Conducted Less Frequently

If the information is not collected, the NRC will be unable to inform its budget and resource planning for the review of ATF, higher burnup, and increased enrichment-related applications. This could cause the NRC to be less efficient in scheduling its

resources for reviewing licensing requests and cause the completion of the reviews to not be timely. This schedule is the minimum frequency necessary for the NRC to update its budget and resource planning as submittal schedules change.

7. Circumstances Which Justify Variation from OMB Guidelines

Not applicable.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published in the *Federal Register*.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

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

11. Justification for Sensitive Questions

Not applicable.

12. Estimated Burden and Burden Hour Cost

The RIS will be sent to 437 potential respondents, including all holders of operating licenses for nuclear power reactors under the provisions of 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," or holders of a combined license under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," except those that have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel; all holders of licenses and potential applicants for a fuel cycle facility under the provisions of 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material;" and all holders of licenses and Certificates of Compliance (CoC) and potential applicants for transportation and storage systems under the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material," and 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste." The NRC staff anticipates receiving responses from 14 respondents. The response rates for each have been estimated based on interactions with industry and documented on the supplemental spreadsheet.:

- There are 94 operating reactor units at 54 sites that are expected to potentially respond to the survey. The reactor licensees that will respond to the survey are expected to provide one response for all units at multiple unit sites, with an indication of whether the requested information is applicable to all units or to select units, and, if so, which ones. Based on interactions with industry, the NRC anticipates that 10 percent of the 54 sites (i.e., 5 sites) will respond to the voluntary survey because, although the NRC expects widespread adoption of ATF, higher burnup, and

increased enrichment fuels, not all reactor licensees will choose to adopt it for a given site.

- Currently, there are 89 Part 72 Licensee Holders (independent storage installations) eligible to respond to the requested information. Staff anticipate that 10 percent of the 89 licensees (i.e. 9 licensees) will respond to the voluntary survey during the clearance period.

The NRC estimates that it will take 10 hours per respondent to respond to the survey for a burden of 140 hours (10 hours x 14 responses).

Burden estimates are included in the supplemental burden spreadsheet.

The total annualized burden for the collection is 140 hours and 14 responses, at a cost of \$44,380 (140 hours x \$317/hr).

The \$317 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 2024 (89 FR 51789, June 20, 2024).

Additionally, there are no recordkeeping requirements imposed in this clearance.

13. Estimate of Other Additional Costs

There are no additional costs.

14. Estimated Annualized Cost to the Federal Government

The NRC staff estimates that it will spend approximately 110 hours annually to review the expected submissions. The cost to the NRC for reviewing these submissions will be approximately \$34,870 (110 hrs x \$317/hr). These estimates are based on staff experience and subject matter expertise and include the burden needed to review, analyze, and process the collected information.

The \$317 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 2024 (89 FR 51789, June 20, 2024).

15. Reasons for Change in Burden or Cost

Decreases:

In this cycle, due to external programs contributing to the progression of advanced reactor designs, staff are seeking to collect the information annually. Due to these programs, ongoing robust pre-application engagements, and meetings, discussions and continuous contact with prospective stakeholders, staff anticipate this will reduce the burden from 20 hours to 10 hours per response as stakeholders will only be updating

known information. For this cycle, there is an overall decrease in burden (from 780 hours to 140 hours, a reduction of 640 hours) and responses (from 43 responses to 14 responses, a reduction of 29 responses) annually.

Increases:

There is an increase in this cycle in the number of recipients from 149 in the prior cycle to 437 in this cycle, an increase of 288 recipients. This increase is due to an inadvertent omission that did not include all 10 CFR Parts 70, 71 and 72 License Holders and Applicants; although, those recipients are not expected to respond.

16. Publication for Statistical Use

This information will not be published for statistical use.

17. Reason for Not Displaying the Expiration Date

Not applicable. The information collection displays the expiration date.

18. Exceptions to the Certification Statement

None.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.