

IMPORTANT — READ INSTRUCTIONS BEFORE COMPLETING FORM. DO NOT USE THE SAME SF 83 TO SIMULTANEOUSLY REQUEST AN EXECUTIVE ORDER 12291 REVIEW AND APPROVAL UNDER THE PAPERWORK REDUCTION ACT.

ANSWER ALL QUESTIONS IN PART I. IF THIS REQUEST IS FOR REVIEW UNDER E.O. 12291, COMPLETE PART II AND SIGN THE CERTIFICATION. IF THIS REQUEST IS FOR APPROVAL UNDER THE PAPERWORK REDUCTION ACT AND 5 CFR 1320, SKIP PART II, COMPLETE PART III AND SIGN THE CERTIFICATION.

SEND THREE COPIES OF THIS FORM, THE MATERIAL TO BE REVIEWED, AND FOR PAPERWORK -- THREE COPIES OF THE SUPPORTING STATEMENT TO: OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, D.C. 20503 -ATTENTION DOCKET LIBRARY ROOM 3201

PART I.

1. DEPARTMENT/AGENCY and BUREAU/OFFICE
ORIGINATING REQUEST

U.S.N.R.C

2. AGENCY
CODE

3 1 5 0

3. NAME AND TELEPHONE NUMBER OF PERSON WHO
CAN BEST ANSWER QUESTIONS REGARDING
THIS REQUEST

Wm. R. Lahs
(301) 443-7874

4. TITLE OF INFORMATION COLLECTION OR RULEMAKING
10 CFR 50.64 - LIMITING THE USE OF HIGHLY ENRICHED URANIUM IN RESEARCH REACTORS

5. LEGAL AUTHORITY FOR INFORMATION COLLECTION OR RULE
(CITE UNITED STATES CODE, PUBLIC LAW, OR EXECUTIVE
ORDER)

42 USC 2201 OR _____

6. AFFECTED PUBLIC (CHECK ALL THAT APPLY)

- 1. INDIVIDUALS OR HOUSEHOLDS
- 2. STATE OR LOCAL GOVERNMENTS
- 3. FARMS
- 4. BUSINESSES OR OTHER FOR-PROFIT
- 5. FEDERAL AGENCIES OR EMPLOYEES
- 6. NON-PROFIT INSTITUTIONS
- 7. SMALL BUSINESSES OR ORGANIZATIONS

PART II. COMPLETE THIS PART ONLY IF THE REQUEST IS FOR OMB REVIEW UNDER EXECUTIVE ORDER 12291.

7. REGULATORY INFORMATION NUMBER (RIN)

9. CFR SECTION AFFECTED

_____ CFR _____

8. TYPE OF SUBMISSION

CLASSIFICATION

- 1. MAJOR
- 2. NONMAJOR

STAGE OF DEVELOPMENT

- 1. PROPOSED OR DRAFT
- 2. FINAL OR INTERIM FINAL, WITH PRIOR PROPOSAL
- 3. FINAL OR INTERIM FINAL, WITHOUT PRIOR PROPOSAL

TYPE OF REVIEW REQUESTED

- 1. STANDARD
- 2. PENDING
- 3. EMERGENCY
- 4. STATUTORY OR JUDICIAL DECREE

10. DOES THIS REGULATION CONTAIN REPORTING OR RECORD-KEEPING REQUIREMENTS THAT REQUIRE OMB APPROVAL UNDER THE PAPERWORK REDUCTION ACT AND 5 CFR 1320?

YES NO

11. IF A MAJOR RULE, IS THERE A REGULATORY IMPACT ANALYSIS ATTACHED?

1. YES 2. NO — IF NO, DID OMB WAIVE THE ANALYSIS?
3. YES 4. NO

12. DOES THIS REGULATION AFFECT ANY TRADE SENSITIVE ACTIVITY?

YES NO

CERTIFICATION FOR REGULATORY SUBMISSIONS: IN SUBMITTING THIS REQUEST FOR OMB REVIEW, THE AUTHORIZED REGULATORY CONTACT AND THE PROGRAM OFFICIAL CERTIFY THAT THE REQUIREMENTS OF E.O. 12291 AND ANY APPLICABLE POLICY DIRECTIVES HAVE BEEN COMPLIED WITH.

SIGNATURE OF PROGRAM OFFICIAL

DATE

SIGNATURE OF AUTHORIZED REGULATORY CONTACT DATE

8407170184 840712
PDR ORG EUSOMB
PDR

13. ABSTRACT - DESCRIBE NEEDS, USES AND AFFECTED PUBLIC IN 50 WORDS OR LESS
 The Commission needs information from holders of operating licenses to determine if a reactor has a unique purpose, to determine final schedule for such reactors to use high enriched uranium and to determine final schedule for all nonpower reactors to convert to low enriched uranium fuel.

14. TYPE OF INFORMATION COLLECTION (CHECK ONE ONLY)

INFORMATION COLLECTIONS NOT CONTAINED IN RULES

- 1. REGULAR SUBMISSION
- 2. EMERGENCY SUBMISSION

(CERTIFICATION ATTACHED)

INFORMATION COLLECTIONS CONTAINED IN RULES

- 3. EXISTING REGULATION (NO CHANGE PROPOSED)
- 4. NOTICE OF PROPOSED RULEMAKING (NPRM)
- 5. FINAL, NPRM WAS PREVIOUSLY PUBLISHED
- 6. FINAL OR INTERIM FINAL WITHOUT PRIOR NPRM
 - A. REGULAR SUBMISSION
 - B. EMERGENCY SUBMISSION

(CERTIFICATION ATTACHED)

DATE OF EXPECTED OR ACTUAL FEDERAL REGISTER PUBLICATION AT THIS STAGE OF RULEMAKING --

1, 19

15. TYPE OF REVIEW REQUESTED (CHECK ONE ONLY)

- 1. NEW COLLECTION
- 2. REVISION OF A CURRENTLY APPROVED COLLECTION
- 3. EXTENSION OF THE EXPIRATION DATE OF A CURRENTLY APPROVED COLLECTION WITHOUT ANY CHANGE IN THE SUBSTANCE OR IN THE METHOD OF COLLECTION
- 4. REINSTATEMENT OF A PREVIOUSLY APPROVED COLLECTION FOR WHICH APPROVAL HAS EXPIRED
- 5. EXISTING COLLECTION IN USE WITHOUT AN OMB CONTROL NUMBER

16. AGENCY REPORT FORM NUMBER(S)

N/A

17. ANNUAL REPORTING OR DISCLOSURE BURDEN

- 1. NUMBER OF RESPONDENTS 220
- 2. NUMBER OF RESPONSES PER RESPONDENT varies
- 3. TOTAL ANNUAL RESPONSES (1 x 2) 7,174
- 4. HOURS PER RESPONSE _____
- 5. TOTAL HOURS (3 x 4) 5,973,449

18. ANNUAL RECORDKEEPING BURDEN

- 1. NUMBER OF RECORDKEEPERS _____
- 2. ANNUAL HOURS PER RECORDKEEPER _____
- 3. TOTAL RECORDKEEPING HOURS (1 x 2) _____
- 4. RECORDKEEPING RETENTION PERIOD _____ YEARS

19. TOTAL ANNUAL BURDEN

- 1. REQUESTED (17-5 + 18-3) 5,973,449
- 2. IN CURRENT OMB INVENTORY 5,973,449
- 3. DIFFERENCE (1 - 2) ±
- EXPLANATION OF DIFFERENCE
- 4. PROGRAM CHANGE ±
- 5. ADJUSTMENT ±

20. CURRENT (MOST RECENT) OMB CONTROL NUMBER OR COMMENT NUMBER

3150-0011

21. REQUESTED EXPIRATION DATE

April 30, 1985

22. PURPOSE OF INFORMATION COLLECTION (CHECK AS MANY AS APPLY)

- 1. APPLICATION FOR BENEFITS
- 2. PROGRAM EVALUATION
- 3. GENERAL PURPOSE STATISTICS
- 4. REGULATORY OR COMPLIANCE
- 5. PROGRAM PLANNING OR MANAGEMENT
- 6. RESEARCH
- 7. AUDIT

23. FREQUENCY OF RECORDKEEPING OR REPORTING (CHECK ALL THAT APPLY)

- 1. RECORDKEEPING REPORTING
- 2. ON OCCASION
- 3. WEEKLY
- 4. MONTHLY
- 5. QUARTERLY
- 6. SEMI-ANNUALLY
- 7. ANNUALLY
- 8. BIENNUELLY
- 9. OTHER - DESCRIBE

24. RESPONDENTS OBLIGATION TO COMPLY (CHECK THE STRONGEST OBLIGATION THAT APPLIES)

- 1. VOLUNTARY
- 2. REQUIRED TO OBTAIN OR RETAIN A BENEFIT
- 3. MANDATORY

25. ARE THE RESPONDENTS PRIMARILY EDUCATIONAL AGENCIES OR INSTITUTIONS OR IS THE PRIMARY PURPOSE OF THE COLLECTION RELATED TO FEDERAL EDUCATION PROGRAMS?

YES NO

26. DOES THE AGENCY USE SAMPLING TO SELECT RESPONDENTS OR DOES THE AGENCY RECOMMEND OR PRESCRIBE THE USE OF SAMPLING OR STATISTICAL ANALYSIS BY RESPONDENTS?

YES NO

27. REGULATORY AUTHORITY FOR THE INFORMATION COLLECTION

10 CFR 50.64(d), or

FR, or

OTHER (SPECIFY) _____

PAPERWORK CERTIFICATION: IN SUBMITTING THIS REQUEST FOR OMB APPROVAL, THE AGENCY HEAD, THE SENIOR OFFICIAL OR AN AUTHORIZED REPRESENTATIVE, CERTIFIES THAT THE REQUIREMENTS OF THE PRIVACY ACT AND OMB DIRECTIVES HAVE BEEN COMPLIED WITH INCLUDING PAPERWORK REGULATIONS, STATISTICAL STANDARDS OR DIRECTIVES, AND ANY OTHER INFORMATION POLICY DIRECTIVES PROMULGATED UNDER THE PAPERWORK REDUCTION ACT OF 1980.

SIGNATURE OF PROGRAM OFFICIAL

DATE

SIGNATURE OF AGENCY HEAD OR THE SENIOR OFFICIAL OR AN AUTHORIZED REPRESENTATIVE

DATE

Patricia G. Norry, Director, ADM

7-10-89

OMB SUPPORTING STATEMENT

10 CFR 50

Limiting the Use of Highly Enriched Uranium
in Research Reactors

1. Justification

A. Need for the Collection of Information

The Commission is considering amending its regulations to limit the use of highly enriched uranium (HEU) fuel in research and test reactors (nuclear non-power reactors). The proposed amendment generally would require that new non-power reactors use low enriched uranium (LEU) fuel and that existing non-power reactors replace HEU fuel with LEU fuel when available.

A Commission policy statement published August 24, 1982 (47 FR 37007), explains NRC's interest in reducing the use of highly enriched uranium in research reactors. This interest stems from NRC's licensing responsibility for both domestic use and for export abroad of HEU and concern about risks of theft or diversion of this material.

The policy statement also describes a continuing program to develop and demonstrate the technology that will facilitate the use of reduced enrichment fuels. The reduced enrichment for research and test reactors (RERTR) program was initiated by the Department of Energy (DOE) and is managed by the Argonne National Laboratory. Its objective is to prove the ability of new low enriched uranium (LEU)

fuels to replace existing HEU fuel without significant changes to existing reactor cores or facilities, or significant decrease in performance characteristics of the reactors.

Information considered to date indicates that conversion of most non-power reactors from HEU fuel to LEU fuel will be technically feasible prior to or upon completion of the RERTR program. The information also shows that a major consideration is the cost of conversion. NRC shares the licensees' expressed view that conversion costs should largely or entirely be financed by the Federal government. Historically, the DOE and its predecessor agencies have provided significant support to research and test reactor programs. The availability of Federal support will be considered in determining the availability of LEU fuel and final schedules for conversion.

The RERTR program's progress and anticipated success have encouraged NRC to undertake a rulemaking proceeding which would cause reduction in the use of HEU fuel in nuclear non-power reactors. In this proceeding, the Commission considers that licensed non-power reactors now using HEU fuel are operated without significant risk to the health and safety of the general public and improved reactor safety is not the objective. The proceeding is intended only to cause replacement of HEU. This reduction is desirable because HEU, in appropriate form and quantity, can be used to make an explosive device. LEU has relatively little value for this purpose.

The proposed rule is intended only to reduce the risk of theft or diversion of HEU fuel used in non-power reactors. The reduction in domestic use of HEU fuel may encourage similar action by foreign research reactor operators, and thereby reduce the amount of HEU fuel in international use.

Under the proposed rule, non-power reactors would be required to use LEU fuel or use HEU fuel of enrichment as close to 20% as is available and acceptable to the Commission. Section 50.64(d)(1) of the proposed rule states that any request with supporting documentation for a determination that a reactor has a unique purpose must be submitted within 6 months of the effective date of the rule. Section 50.64(d)(2) of the proposed rule requires each non-power reactor licensee authorized to possess and use HEU fuel to develop and submit, within 12 months of the effective date of the rule, to the NRC's Director of the Office of Nuclear Reactor Regulation a proposed schedule for conversion to LEU fuel or to use HEU fuel as close to 20% as is available and acceptable to the Commission. This proposed schedule will be based upon the availability of replacement fuel acceptable to the NRC and consideration of other factors such as the availability of shipping casks, financial support, and reactor usage. A final schedule will then be determined by the Director.

Section 50.64(d)(3) states that in cases where replacement of HEU fuel with LEU fuel does not change the technical specifications incorporated in the license or involve an unreviewed safety question, the licensee shall maintain records and furnish reports as specified in 10 CFR 50.59(b). In those cases in which conversion to LEU changes the technical specifications incorporated in the license or involves an unreviewed safety question, the licensee shall file an amendment in accordance with 10 CFR 50.90.

B. Practical Utility of the Collection of Information

A respondent will submit a request with supporting information pursuant to 10 CFR 50.64(d)(1) to the Director of the Office of Nuclear Reactor Regulation. The Director will use the information to make a determination that the nuclear non-power reactor has a unique purpose as defined in 10 CFR 50.64(b)(3).

A respondent will develop and submit to the Director of the Office of Nuclear Reactor Regulation pursuant to 10 CFR 50.64(d)(2) a proposed schedule for meeting the requirements of 10 CFR 50.64(c)(2) or (3). The proposed schedule must be based upon availability of replacement fuel acceptable to the Commission and consideration of other factors such as the availability of shipping casks, financial support, and reactor. The director will use the proposed schedule plus the results of the successful accomplishment of the tasks set out in DOE's RERTR program and the development of commercially available replacement fuel to determine a final schedule.

C. Duplication of Other Collections of Information

A rulemaking is under consideration on 10 CFR 73.67, addressing the problem of improving physical security provisions at non-power reactors using HEU, as an interim measure, until such time as those non-power reactors are converted to LEU. However, information collected under §50.64 will not duplicate information collected under §73.67.

D. Consultations Outside the NRC

The development of the proposed rule has considered extensive comments from the U.S. State Department, the Department of Energy, and the non-power reactor owners. Implementation of the rule as proposed will require extensive coordination between NRC, DOE, and the affected licensees.

2. Description of the Information Collection

A. Number and Type of Respondent

The NRC anticipates 31 respondents on a one-time basis during the 1-year time period following the effective date of the rule. Each of these non-power reactor owners will also have the option of applying for an exemption from converting to LEU fuel based on the unique purpose of the non-power reactor. It is anticipated that between 2 to 6 respondents will request a unique purpose determination [§50.64(d)(1)] and all of the 31 respondents will submit a proposed schedule for conversion to LEU fuel or for use of HEU fuel of enrichment as close to 20% as is available and acceptable to the Commission [§50.64(d)(2)].

B. Reasonableness of the Schedule for Collecting Information

Request for unique purpose under 10 CFR 50.64(d)(1) will require an evaluation of facility purpose against the definitions in 10 CFR 50.64(b)(3). Six months is believed to be a reasonable schedule for comparing existing facility "purpose" against 10 CFR 50.64(b)(3) provisions.

The proposed schedule for meeting the requirements of 10 CFR 50.64(c)(2) or (3) will require a comparison between the licensee's existing fuel design and fuels developed or projected for development under the documented RERTR program. Coordination with NRC to formulate proposed schedules for regulatory review and with DOE to develop fuel procurement and supporting equipment schedules will be required. Twelve months is considered a reasonable time for development of the proposed schedule.

C. Method of Collecting the Information

Submission of a letter with supporting documentation or a proposed schedule is the only perceived method of transmitting the required information that will allow careful and complete review.

D. Format of Information to be Maintained or Submitted

The information will be submitted in letter form.

E. Records Retention Period

The records referenced in §50.64(d)(3) have a retention period that is specified in 10 CFR 50.59(b) for the holder of a license authorizing operation of a utilization facility.

F. Reporting Period

These requests and proposed schedules will be submitted once during the facility operating lifetime prior to meeting the requirements in 10 CFR 50.64(c)(2) or (3).

G. Copies Required to be Submitted

The NRC will accept one original copy to allow the Director to make the determinations in 10 CFR 50.64(d)(1) and (2) of the rule.

3. Estimate of Burden

- A. Section 50.64(d)(1). Approximately 200 hours per response for each of between two and six respondents will be required to develop the request with supporting documentation for a "unique purpose" determination to be submitted to the Director of the Office of Nuclear Reactor Regulation. This is a one-time response within 6 months of the effective date of the rule, so the total burden for the respondents is between 400 and 1,200 hours. Total cost at \$60 per hour is between \$24,000 and \$72,000.

- B. Section 50.64(d)(2). Approximately 120 hours per response for each of approximately 31 respondents will be required to develop the proposed schedule and submit the proposed schedule to NRC. This is a one-time response within 12 months of the effective date of the rule, so the total burden is approximately 3720 hours. Total cost at \$60 per hour is \$223,200.
- C. Section 50.64(d)(3). This section references information collection requirements (recordkeeping and reporting requirements in 10 CFR 50.59(b) or application for an operating license amendment pursuant to 10 CFR 50.59(c) and 10 CFR 50.90) that have been approved by the Office of Management and Budget under approval number 3150-0011. The approval covers information collection burdens for all holders of licenses authorizing operation of a utilization facility.
- D. Burden estimates based on discussions with NRR staff who have been through the licensing process with these reactors previously.
4. Estimate of Cost to the Federal Government
- A. Section 50.64(d)(1). NRC staff time for making a determination for each of the two to six "unique purpose" reactor requests will require approximately 600 hours. The total staff time for the (estimated) two to six requests would be between 1,200 and 3,600 hours. Total cost at \$60 per hour would be between \$72,000 and \$216,000.

Section 50.64(d)(2). NRC staff time for consideration of a schedule proposed by a non-power reactor licensee and determination of a final schedule will require approximately 140 hours for each of approximately 31 licensees for a total of 4,340 hours. Total cost at \$60 per hour is \$260,400.

- C. Section 50.64(d)(3). This section references information collections for which costs to the Federal government (review of applications for an operating license amendment) have been approved by the Office of Management and Budget under approval number 3150-0011.