

FINAL OMB SUPPORTING STATEMENT  
FOR  
10 CFR PART 100  
REACTOR SITE CRITERIA

(3150-0093)

EXTENSION

Description of the Information Collection

The Nuclear Regulatory Commission's (NRC's) regulations, Title 10 of the *Code of Federal Regulations* (10 CFR), Part 100, "Reactor Site Criteria," establish approval requirements for proposed sites for the purpose of constructing and operating stationary power and testing reactors. These requirements apply to applicants who apply for an early site permit (ESP), design certification (DC), or combined license (COL) or a construction permit (CP) or operating license (OL) on or after January 10, 1997.<sup>1</sup>

This clearance is necessary since the NRC is expecting approximately five DC applications and one CP application over the next 3 years. The applicants must provide information regarding the physical characteristics of the site in addition to the potential for natural phenomena and man-made hazards. This includes information on geologic hazards (such as faulting, seismic hazards, and the maximum credible earthquake) and factors such as population density, the proximity of man-related hazards, and site atmospheric dispersion characteristics. The NRC staff reviews the submitted information and, if necessary, generates a request for additional information. The staff meets with the applicant and conducts a site visit to resolve any open issues. When the open issues have been resolved, the staff writes the final safety evaluation report, which is published and used as a basis for the remainder of the NRC licensing process. This process usually takes about 1½ years.

A. JUSTIFICATION

1. Need for and Practical Utility of the Information Collection

In support of the agency's mission regarding adequate protection of the health and safety of the public from natural phenomena and man-made hazards, the NRC needs the requested information to assess the adequacy of proposed design bases for natural phenomena and man-made hazards for nuclear power plants. It is submitted to the NRC as part of the application and supporting documentation for a CP, OL, ESP, DC, or COL for a nuclear power plant.

Section 100.21, "Non-seismic siting criteria," set forth the criteria that applicants must demonstrate in the license application for operating commercial power reactors.

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<sup>1</sup> Appendix A to 10 CFR Part 100 continues to serve as the criteria for the seismic and geologic siting and earthquake engineering for plants licenses or granted their CP before January 10, 1997.

- (a) Requires that the site must have an exclusion area and a low population zone.
- (b) Requires that the population center distance must be one and one-third times the distance from the reactor to the outer boundary of the low population zone.
- (c) Requires site atmospheric dispersion characteristics must be evaluated as set forth in 10 CFR Part 50.34(a)(1) to include radiological effluent release limits and radiological doses.
- (d) Requires that the physical characteristics of the site must be evaluated and site parameters established.
- (e) Requires that transportation routes, and industrial and military facilities establish site parameters that must be evaluated.
- (f) Requires adequate security plans and measures that can be developed.
- (g) Requires that Impediments to emergency plans must be identified.
- (h) Requires sites to be located away from very densely populated centers.

Section 100.23, "Geologic and seismic siting criteria," set forth the principle geologic and seismic considerations that guide the Commission in its evaluation of the suitability of a proposed site and the adequacy of the design bases established in consideration of the geologic and seismic characteristics of the site.

- (a) Requires paragraphs (c) and (d) be applied to applicants for an early site permit or combined license pursuant to Part 52.
- (b) Requires that paragraph (c) be within the scope of section 50.10.
- (c) Requires the applicant for early site permit or combined license under Part 52 to provide an adequate evaluation of geological, seismological, and engineering characteristics of a site and its environs to support the evaluation.
- (d) Requires the geologic and seismic siting factors considered for design must include a determination of the Site-specific ground motion response spectrum for the site, the potential for surface tectonic and nontectonic deformations, the design bases for seismically induced floods and water waves, and other design conditions as stated in paragraph (d)(4).

2. Agency Use of Information

The NRC reviews the physical characteristics of the site in addition to the potential for natural phenomena and man-made hazards to determine the suitability of the proposed site for a nuclear power plant and the suitability of the plant design bases established on the proposed site. A CP, ESP, standard DC, COL, or OL cannot be issued until these data have been reviewed and approved by the NRC.

New information regarding the potential for natural phenomena and man-made hazards that becomes known during the operating life of the plant is also evaluated on the basis of these criteria.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. The NRC encourages respondents to use information technology when it would be beneficial to them. NRC issued a regulation on October 10, 2003 (68 FR 58791), consistent with the Government Paperwork Elimination Act, which allows its licensees, vendors, applicants, and members of the public the option to make submissions electronically via CD-ROM, e-mail, special Web-based interface, or other means. 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. NRC has in place an on-going program to examine all information collections with the goal of eliminating all duplication and/or unnecessary information collections.

5. Effort to Reduce Small Business Burden

The requirements in 10 CFR 100 apply to applicants who apply for an ESP, DC, or COL or a CP or OL. These applicants are large entities, such as electric utilities, who do not meet the definition of a small business.

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

An applicant is only required to report the information if it seeks to obtain approval for a proposed site for the purpose of constructing and operating a stationary power or testing reactor. Less frequent collection of information will result in serious delays in the licensing processes of nuclear power plants or potential additional risks to the health and safety of the public.

7. Circumstances Which Justify Variation from OMB Guidelines

There is no variation from the guidelines.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published in the Federal Register on July 2, 2014 (79 FR 37781). No comments were received.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of the 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. Estimate of Industry Burden and Burden Hour Cost

Over the next 3 years, the NRC expects seven applications for an average of 2.3 applications per year, which is consistent with the current estimates. This data is based on estimates received from applicants surveyed to determine the forecast of future applications.

For each application, the estimated burden for 10 CFR Section 100.21 (Non-seismic siting criteria) is 22,000 hours and for 10 CFR Section 100.23 (Geologic and seismic siting criteria) is 51,000 hours. Thus, the total burden for collecting and reporting information concerning the potential for natural phenomena and man-made hazards at a proposed nuclear power plant site is estimated at 73,000 hours per application. These estimates assume that 30 percent of the total burden hours are associated with non-seismic siting criteria and 70 percent are associated with geologic and seismic siting criteria.

Annually, the total estimated burden is 167,900 hours (73,000 hours per application x 2.3 applications) and the total estimated cost is \$45,668,800 (167,900 hours x \$272). See Table 1.

13. Estimate of Other Additional Costs

There are no additional costs.

14. Estimated Annual Cost to the Federal Government

Staff review of information concerning potential natural phenomena and man-made hazards for a proposed nuclear power plant site is estimated at

approximately 5,000 hours per application, for an estimated annual cost of \$3,128,000 (5,000 hours x 2.3 applications x \$272/hour).

This cost is fully recovered through fee assessments to NRC applicants pursuant to 10 CFR Part 170 and/or Part 171.

15. Reasons for Change in Burden

The total burden estimate for this information collection has increased by 21,900 hours from 146,000 hours to 167,900 hours annually.

This increase is due to:

- The estimate for the number of hours to complete an application is unchanged at an estimated 73,000 hours per application (is based on estimates from applicants whose estimated burden ranged from 64,000 hours to 90,000 hours), and on results from industry surveyed through a RIS, the anticipated number of applications has increased from 2 to 2.3 annually.
- In addition, there has been an increase in the overall cost as a result of an increase in the rate from \$259 per hour to \$272 per hour.

16. Publication for Statistical Use

This information will not be published for statistical use.

17. Reason for Not Displaying the Expiration Date

The recordkeeping and reporting requirements for this information collection are associated with regulations and are not submitted on instruments such as forms or surveys. For this reason, there are no data instruments on which to display an OMB expiration date. Further, amending the regulatory text of the CFR to display information that, in an annual publication, could become obsolete would be unduly burdensome and too difficult to keep current.

18. Exceptions to the Certification Statement

Not applicable.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

10 CFR Part 100 allows for the acquisition of statistical data and the use of statistical methods, but does not require them.

**TABLE 1**  
**Annualized Reporting Burden**

Section	No. of Respondents	Responses per Respondent	Total No. of Responses	Burden Hours per Response	Total Annual Reporting Burden (Hours)
Non-seismic siting criteria (10 CFR 100.21)	2.3	1	2.3	22,000	50,600
Geologic and seismic siting criteria (10 CFR 100.23)	2.3	1	2.3	51,000	117,300
<b>TOTAL</b>	2.3	1	2.3	73,000	167,900

TOTAL BURDEN HOURS: 167,900 hours  
TOTAL BURDEN HOUR COST: 45,668,800 (73,000 hours per respondent x 2.3 respondents x \$272/hour)  
ANNUAL RESPONDENTS: 2.3 respondents