

DRAFT OMB SUPPORTING STATEMENT
FOR
10 CFR PART 100

REACTOR SITE CRITERIA
(OMB Clearance No. 3150-0093)

Revision to Clearance Extension

DESCRIPTION OF THE INFORMATION COLLECTION

The Nuclear Regulatory Commission's (NRC's) 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 pursuant to the provisions of 10 CFR Parts 50 or 52. The information collection requirements of Part 100 are contained in Sections 100.21 and 100.23 and Appendix A and are described below. On January 10, 1997, the NRC amended Parts 100 (OMB Clearance No. 3150-0093) and 50 (OMB Clearance No. 3150-0011) by adding Sections 100.23 and Appendix S to Part 50. The section and appendix apply to applicants who apply for an early site permit, design certification, or combined license pursuant to Part 52 or a construction permit or operating license pursuant to Part 50 on or after January 10, 1997. If the construction permit was issued prior to January 10, 1997, the operating license applicant must comply with the seismic and geologic siting and earthquake engineering criteria in Appendix A to Part 100. Appendix A to Part 100 continues to serve as the criteria for the seismic and geologic siting and earthquake engineering for plants licensed or granted their construction permit before January 10, 1997.

Section 100.21, "Non-seismic siting criteria," sets forth that applicants must meet certain criteria to demonstrate the operation of commercial power reactors in the license application. These criteria are that: (1) the site must have an exclusion area and a low population zone (LPZ); (2) the population center distance must be one and one-third times the distance from the reactor to the outer boundary of the LPZ; (3) evaluate the site atmospheric dispersion characteristics, including radiological effluent release limits, radiological dose consequences set forth in Sec. 50.34(a)(1); (4) the physical characteristics of the site; (5) evaluate the potential hazards with transportation routes, industrial and military facilities and what are the established site parameters; (6) develop adequate security plans; (7) identify emergency plans; and (8) are the sites located away from very densely populated centers.

Section 100.23, "Geologic and seismic siting criteria," (paragraphs (c) and (d)), sets forth the principle geologic and seismic considerations that guide the NRC in its evaluation of the suitability of a site and the adequacy of the design bases established in consideration of the geologic and seismic characteristics of the site. Applicants are required in order to obtain a license to gather seismic and geologic hazard information to be submitted for emergency plans, safety assessments, and environmental reports (as required by 10 CFR 51.45 and 51.50). The information would include the frequency of occurrence of earthquakes, tectonic and nontectonic surface deformation, and seismically induced floods and water waves, as well as the earthquake ground motion for the seismic design basis, design bases for seismically induced floods and water waves, the potential for surface deformation and other design conditions that may be affected by earthquake ground motion, such as the potential for liquefaction, and soil and rock stability.

Appendix A, "Seismic and Geologic Siting Criteria for Nuclear Power Plants" (Sections II, IV, V, and VI(b)(1)) requires applicants to provide in the license application a report of the pertinent literature and field investigations for: (1) vibratory ground motion produced by a safe shutdown earthquake or an operating basis earthquake; (2) the design for surface faulting using geological and geophysical techniques; and (3) establishing the design basis for seismically induced floods and water waves, in obtaining the geologic and seismic data necessary to determine site suitability with reasonable assurance that a nuclear power plant can be constructed and operated at a site without undue risk to the health and safety of the public.

This clearance is necessary since the NRC expects as many as three early site permit applications over the next three years. The NRC review process for a construction permit, operating license, early site permit, design certification, or combined license as it applies to Part 100 would range from one to several years. The NRC staff reviews the Safety Analysis Report for 6 to 24 months and, if necessary, generates a request for additional information. The applicant usually responds within 1 to 6 months, depending on the complexity of the issues. The average time is usually about 3 months. The responses are reviewed and a draft Safety Evaluation Report is written by the NRC staff. This document summarizes conclusions and highlights any outstanding issues. The NRC staff arranges for a meeting and 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 which consists of meeting with the Advisory Committee on Reactor Safeguards (ACRS) and hearing, as necessary, before the Atomic Safety and Licensing Board Panel. 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 construction permit, operating license, early site permit, design certification, or combined license for a nuclear power plant.

Moreover, Sections 100.21, 100.23, and Appendix A, supplemented by the DG-1109, "Laboratory Investigations of Soils and Rocks for Engineering Analysis and Design of Nuclear Power Plants," Regulatory Guide 1.132, "Site Investigations for Foundations of Nuclear Power Plants," Regulatory Guide 1.165, "Identification and Characterization of Seismic Sources and Determination Safe Shutdown Earthquake Ground Motion," Regulatory 1.59, "Design Basis Floods for Nuclear Power Plants," Regulatory Guide 1.91, "Evaluations of Explosions Postulated to Occur on Transportation Routes Near Nuclear Power Stations," Regulatory Guide 4.2, "Preparation of Environmental Reports for Nuclear Power Stations," Regulatory Guide 4.7, "General Site Suitability Criteria for Nuclear Power Stations," and NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants" are used by applicants as general guidance in planning investigations of nuclear power plant sites.

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 construction permit, early site permit, standard design certification, combined license, or operating license 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 is no legal obstacle or any obstacle in 10 CFR Part 100 to licensees reducing the burden associated with this information collection by use of information technology or otherwise. At present, applicants need submit only one copy of a document in accordance with guidance contained in NRC Regulatory Issue Summary 2001-05, "Guidance on Submitting Documents to the NRC by Electronic Information Exchange (EIE) or on CD-ROM." The document may be submitted either on paper or electronically over the Internet or on CD-ROM.

4. Effort to Identify Duplication and Use Similar Information

This information does not duplicate other information being provided to NRC. All pertinent information concerning the nuclear site and the region around the site will be used in the analysis of that site, whether it is supplied by the applicant or not. The availability of information concerning the potential for natural phenomena and man-made hazards may reduce the applicant's efforts related to site investigation.

5. Effort to Reduce Small Business Burden

This information collection does not affect small businesses.

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

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

An opportunity to comment on the information collection requirements for this clearance package has been published in the Federal Register.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of the Information

Proprietary information is protected in accordance with the provisions specified in 10 CFR 2 of the NRC's regulations.

11. Justification for Sensitive Questions

This regulation does not require sensitive information.

12. Estimate of Industry Burden and Burden Hour Cost

The burden for collecting information concerning the potential for natural phenomena and man-made hazards at a proposed nuclear power plant site is estimated at 9,000 hours annually for 2 responses, Section 100.21–1 response, 4,000 hours; and Section 100.23–1 response, 5,000 hours. Thus, the total estimated annual burden for industry is 9,000 hours at a cost of \$2,700,000 (2 x 9,000 x \$150).

13. Other Additional Costs

No additional costs are anticipated.

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 may result in approximately 3,000 hours per year at an estimated cost of \$450,000 (3,000 x \$150).

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

15. Reasons for Change in Burden

The overall burden estimate for 10 CFR Part 100 has increased 4,000 hours for the next clearance period from 5,000 hours to 9,000 hours. During our re-examination of Part 100, we found that Section 100.21 was inadvertently omitted from the clearance package and the burden was being captured under Section 100.23. Upon further examination, it was determined that the burden for Section 100.23 was not sufficient to include the non-seismic criteria. Therefore, Section 100.21 has been added with an estimated 4,000 hours.

There has been an increase in the overall cost as a result of an increase in the rate from \$124 per hour to \$150 per hour in accordance with Part 170.

16. Publication for Statistical Use

This information will not be published for statistical use.

17. Reason for Not Displaying the Expiration Date

The requirement is contained in a regulation. Amending the Code of Federal Regulations 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

There are no exceptions.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

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