



## U.S. NUCLEAR REGULATORY COMMISSION

# STANDARD REVIEW PLAN

### 2.4.10 FLOODING PROTECTION REQUIREMENTS

#### REVIEW RESPONSIBILITIES

**Primary** - Organization responsible for the review of issues related to hydrology

**Secondary** - None

#### I. AREAS OF REVIEW

Chapter 2 of the Standard Review Plan (SRP) discusses the site characteristics that could affect the safe design and siting of a plant. The staff reviews information presented by the applicant for a construction permit (CP), operating license (OL), design certification (DC), early site permit (ESP), or combined license (COL) concerning hydrological setting of the site as they relate to safety-related structures, systems, and components (SSC). This SRP section applies to reviews performed for each of these types of applications. The staff's review and findings are described in the appropriate section of the safety evaluation report (SER).

In this section of the applicant's safety analysis report (SAR), the locations and elevations of safety-related facilities and those of structures and components required for protection of safety-related facilities are compared with design-basis flood conditions to determine if flood effects need to be considered in plant design or in emergency procedures.

The specific areas of review are as follows:

The staff review the locations and elevations of all safety-related facilities to identify the SSC exposed to flooding.

Revision 3 - March 2007

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### USNRC STANDARD REVIEW PLAN

This Standard Review Plan, NUREG-0800, has been prepared to establish criteria that the U.S. Nuclear Regulatory Commission staff responsible for the review of applications to construct and operate nuclear power plants intends to use in evaluating whether an applicant/licensee meets the NRC's regulations. The Standard Review Plan is not a substitute for the NRC's regulations, and compliance with it is not required. However, an applicant is required to identify differences between the design features, analytical techniques, and procedural measures proposed for its facility and the SRP acceptance criteria and evaluate how the proposed alternatives to the SRP acceptance criteria provide an acceptable method of complying with the NRC regulations.

The standard review plan sections are numbered in accordance with corresponding sections in Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition)." Not all sections of Regulatory Guide 1.70 have a corresponding review plan section. The SRP sections applicable to a combined license application for a new light-water reactor (LWR) are based on Regulatory Guide 1.206, "Combined License Applications for Nuclear Power Plants (LWR Edition)."

These documents are made available to the public as part of the NRC's policy to inform the nuclear industry and the general public of regulatory procedures and policies. Individual sections of NUREG-0800 will be revised periodically, as appropriate, to accommodate comments and to reflect new information and experience. Comments may be submitted electronically by email to [NRR\\_SRP@nrc.gov](mailto:NRR_SRP@nrc.gov).

Requests for single copies of SRP sections (which may be reproduced) should be made to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Reproduction and Distribution Services Section, or by fax to (301) 415-2289; or by email to [DISTRIBUTION@nrc.gov](mailto:DISTRIBUTION@nrc.gov). Electronic copies of this section are available through the NRC's public Web site at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0800/>, or in the NRC's Agencywide Documents Access and Management System (ADAMS), at <http://www.nrc.gov/reading-rm/adams.html>, under Accession # ML0707340437.

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1. Safety-related Facilities Exposed to Flooding
2. Type of Flood Protection. The staff reviews the type of flood protection (e.g., “hardened facilities,” sandbags, flood doors, bulkheads, etc.) provided to the SSC exposed to floods.
3. Emergency Procedures. The emergency procedures needed to implement flood protection activities and warning times available for their implementation are reviewed by the organization responsible for the review of issues related to plant emergency procedures. The technical specifications related to the emergency procedures needed to ensure adequate flood protection of the plant are reviewed by the organization responsible for the review of issues related to technical specifications.
4. Consideration of Other Site-Related Evaluation Criteria. The potential effects of seismic and non-seismic information on the postulated flooding protection for the proposed plant site are reviewed.
5. Additional Information for 10 CFR Part 52 Applications. Additional information will be presented depending on the type of application. For a COL application, the additional information is dependent on whether the application references an ESP, a DC, both, or neither. Information requirements are prescribed within the “Contents of Application” sections of the applicable Subparts to 10 CFR Part 52.

#### Review Interfaces

Other SRP sections interface with this section as follows:

1. The identification of safety-related structures and equipment that should be protected against the effects of flooding is performed under SRP Section 3.4.1, “Flood Protection.”
2. The review of the design of seismic Category I structures that may affect plant flooding protection requirements, is performed under SRP Section 3.4.2, “Analysis Procedures.”
3. The review to ensure that adverse environmental conditions will not preclude the safety function of the ultimate heat sink is performed under SRP Section 9.2.5, “Ultimate Heat Sink.”
4. The staff’s review related to flooding from local probable maximum precipitation is described in SRP Section 2.4.2; that related to PMF in streams and rivers is described in SRP Section 2.4.3; that related to dam failure scenarios is described in SRP Section 2.4.4; that related to effects of storm surges and seiches including probable maximum windstorm is described in SRP Section 2.4.5; that related to tsunami hazards is described in SRP Section 2.4.6; that related to ice hazards is described in SRP Section 2.4.7; and that related to channel diversions is described in SRP Section 2.4.9.
5. For DC applications and COL applications referencing a DC rule or DC application, review of the site parameters in the Design Control Document (DCD) Tier 1 and Chapter 2 of the DCD Tier 2<sup>1</sup> submitted by the applicant is performed under SRP Section 2.0,

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<sup>1</sup> Additional supporting information of prior DC rules may be found in DCD Tier 2 Section 14.3.

“Site Characteristics and Site Parameters.” Review of site characteristics and site-related design parameters in ESP applications or in COL applications referencing an ESP is also performed under Section 2.0.

The specific acceptance criteria and review procedures are contained in the referenced SRP sections.

## II. ACCEPTANCE CRITERIA

### Requirements

Acceptance criteria are based on meeting the relevant requirements of the following Commission regulations:

1. 10 CFR Part 100, as it relates to identifying and evaluating hydrological features of the site. The requirements to consider physical site characteristics in site evaluations are specified in 10 CFR 100.10(c) for applications before January 10, 1997, and in 10 CFR 100.20(c) for applications on or after January 10, 1997.
2. 10 CFR 100.23(d) sets forth the criteria to determine the siting factors for plant design bases with respect to seismically induced floods and water waves at the site.
3. 10 CFR Part 50, Appendix A, General Design Criterion (GDC) 2, for CP and OL applications, as it relates to consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area, with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated.
4. 10 CFR 52.17(a)(1)(vi), for ESP applications, and 10 CFR 52.79(a)(1)(iii), for COL applications, as they relate to identifying hydrologic site characteristics with appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area and with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated.
5. 10 CFR 50, Appendix A, General Design Criterion (GDC) 44, for CP and OL applications, as it relates to providing an ultimate heat sink for normal operating and accident conditions.

### SRP Acceptance Criteria

Specific SRP acceptance criteria acceptable to meet the relevant requirements of the NRC's regulations identified above are as follows for the review described in this SRP section. The SRP is not a substitute for the NRC's regulations, and compliance with it is not required. However, an applicant is required to identify differences between the design features, analytical techniques, and procedural measures proposed for its facility and the SRP acceptance criteria and evaluate how the proposed alternatives to the SRP acceptance criteria provide acceptable methods of compliance with the NRC regulations.

Appropriate sections of the following documents are used by the staff for the identified acceptance criteria:

Regulatory Guide 1.29 identifies seismic design bases for safety-related SSC.

Regulatory Guide 1.59, as supplemented by current best practices, provides guidance for developing the hydrometeorological design bases.

Regulatory Guide 1.102 describes acceptable flood protection to prevent the safety-related facilities from being adversely affected.

1. Safety-related Facilities Exposed to Flooding. To meet the requirements of GDC 2, 10 CFR 52.17, and 10 CFR Part 100, identification of all SSC exposed to flooding is needed. This identification should be consistent with site characteristics identified by the staff during review of other SAR sections with respect to flood water surface elevations, hydrodynamic forces, and coincident wind-induced waves and runup.
2. Type of Flood Protection. To meet the requirements of GDC 2, 10 CFR 52.17, and 10 CFR Part 100, an evaluation of the applicant's proposed flood protection measures is needed. This evaluation should assess the adequacy of protection provided to the SSC exposed to flooding and should be consistent with site characteristics identified in other SAR sections.
3. Emergency Procedures. To meet the requirements of GDC 2, 10 CFR 52.17, and 10 CFR Part 100, a listing of proposed emergency procedures is needed. The estimated warning time required to implement each of these procedures should be provided.
4. Consideration of Other Site-Related Evaluation Criteria. To meet the requirements of GDC 2, 10 CFR 52.17, and 10 CFR Part 100, an assessment regarding the potential effects of site-related proximity, seismic, and non-seismic information on the postulated flooding protection is needed. The assessment should be sufficient to demonstrate that the applicant's design bases appropriately account for these effects.

#### Technical Rationale

The technical rationale for application of these acceptance criteria to the areas of review addressed by this SRP section is discussed in the following paragraphs:

1. Compliance with GDC 2 requires that nuclear power plant structures, systems, and components important to safety be designed to withstand the effects of natural phenomena such as earthquake, tornado, hurricane, flood, tsunami, and seiche without loss of capability to perform their safety functions. The criterion further specifies that the design bases for these structures, systems, and components shall reflect the following:
  - A. Appropriate consideration of the most severe natural phenomena historically reported for the site and its surrounding area, with sufficient margin for the limited accuracy, quantity, and time period in which the historical data have been accumulated;

- B. Appropriate combinations of the effects of normal and accident conditions with those of the natural phenomena; and
- C. The importance of the safety functions to be performed.

The first specification was adopted in recognition of the relatively short history available for severe natural phenomena (e.g., flooding) on the North American continent and, consequently, the potential for underestimating the severity of a natural phenomenon based solely on probabilistic considerations. This problem is avoided by the use of a deterministic approach that considers the practical physical limitations of those phenomena contributing to the severity of the event in order to assess the design basis event. These data are then used during reviews conducted for a CP, OL, COL, or early site permit to specify flood design or protection requirements for nuclear power plant components, thereby ensuring the capability of these components to continue functioning as required. GDC 2 is imposed to ensure that portions of the facility designated as important to safety will continue functioning to maintain the plant in a safe condition.

This criterion is applicable to SRP Section 2.4.10 because it specifies the hydrologic phenomena that are addressed by this section. In general terms, it also specifies the level of conservatism that should be used to assess the severity of these phenomena for the purpose of determining the design bases (or protection) requirements for structures, systems, and components important to safety.

For applications pursuant to 10 CFR Part 52, meeting the applicable requirements of 10 CFR 52.17 and 10 CFR 52.79 that correspond to GDC 2 provides a level of assurance that the most severe hydrologic site characteristics have been identified; whether GDC 2 is met with respect to the adequacy of the associated design bases will be evaluated pursuant to other SRP sections.

- 2. Sections 100.10(c) and 100.20(c) of 10 CFR Part 100 require that physical characteristics of a site (including seismology, meteorology, geology, and hydrology) be taken into account when determining its acceptability for a nuclear power reactor. To satisfy the hydrologic requirements of 10 CFR Part 100, the applicant's SAR should contain a description of the surface hydrologic characteristics of the site and region, as well as an analysis of the area's flood potential. The description should be sufficient to assess the acceptability of the site for a nuclear power plant of the proposed design. In addition, it may be necessary to assess the potential of those hydrologic characteristics to influence the design of SSC important to safety and to define any special flood protection requirements therefor.

Meeting this requirement provides assurance that structures, systems or components important to safety are designed to withstand, or are protected against, the effects of potentially severe flooding.

### III. REVIEW PROCEDURES

The reviewer will select material from the procedures described below, as may be appropriate for a particular case.

The procedures outlined below are used to review CP applications, ESP applications, and COL applications that do not reference an ESP to determine whether data and analyses for the proposed site meet the acceptance criteria given in Subsection II of this SRP section. For reviews of OL applications, these procedures are used to verify that the data and analyses remain valid and that the facility's design specifications are consistent with these data. As applicable, reviews of OLs and COLs include a determination on whether the content of technical specifications related to hydrology-related site characteristics are acceptable and whether the technical specifications reflect consideration of any identified unique conditions.

These review procedures are based on the identified SRP acceptance criteria. For deviations from these acceptance criteria, the staff should review the applicant's evaluation of how the proposed alternatives provide an acceptable method of complying with the relevant NRC requirements identified in Subsection II.

1. Safety-related Facilities Exposed to Flooding. The staff compares locations and elevations of the SSC important to safety to identify those SSC that may be exposed to flooding, consistent with the site characteristics related to highest flood water surface elevation with coincident wind-wave action that were determined during the staff's review of the applicant's SAR, Sections 2.4.2 through 2.4.7, and 2.4.9. A detailed analysis of hydrostatic and hydrodynamic forces, erosion potential, and other causes that may endanger the safety function of the SSC exposed to floods should be included. The staff considers all flooding mechanisms and their individual characteristics and interactions with the SSC important to safety to assess the design bases that are proposed for flooding protection.

Intake structures, due to their nature, are always flooded, that is, they are located below the water surface. A safety-related intake structure, if one is used, should be provided with flooding protection. The staff will review location and elevation of the safety-related intake to determine the degree of desired flooding protection. Hydrostatic and hydrodynamic forces, impact forces from dynamic effects of floods, erosion and sediment deposition during floods, and any other effects that may lead to loss of functionality of the intake should be considered. "Hardened" protection, as described by Regulatory Guide 1.59, is recommended for flooding protection of a safety-related intake.

2. Type of Flood Protection. The staff reviews the applicant's proposed flooding protection measures with respect to the flooding design bases. If flood protection is required, the type of flood protection ("hardened facilities," sandbags, flood doors, bulkheads, etc.) is reviewed. The staff should use the recommendations of Regulatory Guide 1.102 to determine the adequacy of flood protection from static and dynamic effects of floods. If there is evidence of potential structural effects from flooding, the staff requests that review of structural adequacy of flood protection be performed by the organization responsible for structural and mechanical design.
3. Emergency Procedures. The staff reviews the applicant's proposed emergency procedures. Where the site is not "hardened," that is, where emergency action is needed, the time available to implement emergency procedures should be estimated by analysis of the design-basis flood. The staff should interpret "hardened" flood protection (as discussed in Regulatory Guide 1.59 for facilities identified in Regulatory Guide 1.29) to mean "almost always in place."

The environmental conditions likely to prevail during all potential flooding events up to and including events of the severity of the controlling event are reviewed to establish the minimum time available for implementation of emergency procedures. The physical parameters such as rate-of-rise (of river or lake levels), as well as evaluation (based on experience and engineering judgment) of flood warning networks, provide the staff with an independent estimate of available time. This data is provided to organizations responsible for the review of issues related to plant emergency procedures for their independent evaluation of the time required to implement shutdown and flood protection measures. If the environmental conditions likely are such that the procedures can be carried out, they will be considered acceptable.

An appropriate item in the plant Technical Specifications should be provided in cases where emergency procedures are required to ensure adequate flood protection. For those plants for which shutdown (if recommended under Regulatory Guide 1.59, Position 2) and installation of protective measures is required in the event of a major flood, the procedures for carrying out these measures are reviewed by the organization responsible for the review of issues related to technical specifications for compatibility of available and required times as established above. The Technical Specifications should reference an emergency plan which allows for the orderly installation of required flood protection.

4. Consideration of Other Site-Related Evaluation Criteria. 10 CFR Part 100 describes site-related proximity, seismic, and non-seismic evaluation criteria for power reactor applications. Subpart A to 10 CFR Part 100 addresses the requirements for applications before January 10, 1997, and Subpart B is for applications on or after January 10, 1997. The staff's review will include evaluation of pertinent information to determine if these criteria are appropriately used in postulation of flooding protection at the proposed plant site.

5. Review Procedures Specific to 10 CFR Part 52 Application Type

- A. Early Site Permit Reviews: Subpart A to 10 CFR Part 52 specifies the requirements and procedures applicable to the Commission's review of an ESP application for approval of a proposed site. Information required in an ESP application includes a description of the site characteristics and design parameters of the proposed site. The scope and level of detail of review of data parallel that used for a CP review.

In the absence of certain circumstances, such as a compliance or adequate protection issue, 10 CFR 52.39 precludes the staff from imposing new site characteristics, design parameters, or terms and conditions on the early site permit at the COL stage. Accordingly, the reviewer should ensure that all physical attributes of the site that could affect the design basis of SSCs important to safety are reflected in the site characteristics, design parameters, or terms and conditions of the early site permit.

- B. Standard Design Certification Reviews

DC applications do not contain general descriptions of site characteristics because this information is site-specific and will be addressed by the COL

applicant. However, pursuant to 10 CFR 52.47(a)(1), a DC applicant must provide site parameters postulated for the design. Site parameters associated with this SRP section are reviewed, as applicable, to verify that:

- i. The postulated site parameters are representative of a reasonable number of sites that have been or may be considered for a COL application;
- ii. The appropriate site parameters are included as Tier 1 information. This convention has been used by previous DC applicants. Additional guidance on site parameters is provided in SRP Section 2.0;
- iii. Pertinent parameters are stated in a site parameters summary table; and
- iv. The applicant has provided a basis for each of the site parameters.

- C. Combined License Reviews: For a COL application referencing a certified standard design, NRC staff reviews that application to ensure that sufficient information is presented to demonstrate that the characteristics of the site fall within the site parameters specified in the DC rule. If there are site parameters associated with this SRP section and if the above condition for these parameters has not been met (ie. the actual site characteristics do not fall within the certified standard design site parameters), the COL applicant will need to demonstrate by some other means that the proposed facility is acceptable at the proposed site. This might be done by re-analyzing or redesigning the proposed facility.

For a COL application referencing an ESP, NRC staff reviews the application to ensure the applicant provides sufficient information to demonstrate that the design of the facility falls within the site characteristics and design parameters specified in the early site permit as applicable to this SRP section. In accordance with 10 CFR 52.79(b)(2), should the design of the facility not fall within the site characteristics and design parameters, the application shall include a request for a variance from the ESP that complies with the requirements of 10 CFR 52.39 and 10 CFR 52.93.

In addition, long-term environmental changes and changes to the region resulting from human or natural causes may have introduced changes to the site characteristics that could be relevant to the design basis. In the absence of certain circumstances, such as a compliance or adequate protection issue, 10 CFR 52.39 precludes the staff from imposing new site characteristics, design parameters, or terms and conditions on the early site permit at the COL stage. Consequently, a COL application referencing an ESP need not include a re-investigation of the site characteristics that have previously been accepted in the referenced ESP. However, in accordance with 10 CFR 52.6, "Completeness and Accuracy of Information," the applicant or licensee is responsible for identifying changes of which it is aware, that would satisfy the criteria specified in 10 CFR 52.39. Information provided by the applicant in accordance with 10 CFR 52.6(b) will be addressed by the staff during the review of a COL application referencing an ESP or a DC.



For a COL application referencing either an ESP or DC or both, the staff should review the corresponding sections of the ESP and DC FSER to ensure that any early site permit conditions, restrictions to the DC, or COL action items identified in the FSERs are appropriately handled in the COL application.

#### IV. EVALUATION FINDINGS

The review should document the staff's evaluation of site characteristics against the relevant regulatory criteria. The evaluation should support the staff's conclusions as to whether the regulations are met. The reviewer should state what was done to evaluate the applicant's safety analysis report. The staff's evaluation may include verification that the applicant followed applicable regulatory guidance, performance of independent calculations, and/or validation of appropriate assumptions. The reviewer may state that certain information provided by the applicant was not considered essential to the staff's review and was not reviewed by the staff. While the reviewer may summarize or quote the information offered by the applicant in support of its application, the reviewer should clearly articulate the bases for the staff's conclusions.

The reviewer verifies that the applicant has provided sufficient information and that the review and calculations (if applicable) support conclusions of the following type to be included in the staff's safety evaluation report. The reviewer also states the bases for those conclusions.

##### 1. Construction Permit, Operating License, and Combined License Reviews

The following statements should be preceded by a summary of the site characteristics and parameters used for the plant:

As set forth above, the applicant has presented and substantiated information relative to the flood protection measures important to the design and siting of this plant. The staff has reviewed the available information provided and for the reasons given above, concludes that the identification and consideration of the flood protection measures is acceptable and meets the requirements of 10 CFR Part 50, Appendix A, General Design Criterion 2 and 10 CFR Part 100 [10 CFR 100.10(c) or 10 CFR 100.20(c), as applicable], with respect to determining the acceptability of the site.

The staff finds that the applicant has considered the appropriate site phenomena in establishing the flood protection measures for SSCs important to safety. The staff has generally accepted the methodologies used to determine the flood protection measures, as documented in safety evaluation reports for previous licensing actions. Accordingly, the staff concludes that the use of these methodologies results in design bases containing margin sufficient for the limited accuracy, quantity, and period of time in which the data have been accumulated. The staff concludes that the identified design bases meet the requirement(s) of 10 CFR Part 50, Appendix A, General Design Criterion 2 and 10 CFR 100.10(c) [or 10 CFR 100.20(c)], with respect to establishing the design basis for SSCs important to safety.

## 2. Early Site Permit Reviews

The following statements should be preceded by a summary of the site characteristics and design parameters to be included in any ESP that might be issued for the proposed site:

As set forth above, the applicant has presented and substantiated sufficient information pertaining to the flood protection measures at the proposed site. Section 2.4.10, "Flooding Protection Requirements," of NUREG-0800, Standard Review Plan, provides that the site safety analysis report should address the requirements of 10 CFR Parts 52 and 100 as they relate to identifying and evaluating flood protection measures at the site. Further, the applicant considered the most severe natural phenomena that have been historically reported for the site and surrounding area while describing the flooding protection requirements at the site, with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated. The staff has generally accepted the methodologies used to determine the severity of the phenomena reflected in these site characteristics, as documented in safety evaluation reports for previous licensing actions. Accordingly, the staff concludes that the use of these methodologies results in site characteristics containing sufficient margin for the limited accuracy, quantity, and period of time in which the data have been accumulated. In view of the above, the site characteristics previously identified are acceptable for use in establishing the design bases for SSCs important to safety, as may be proposed in a COL or CP application.

Therefore, the staff concludes that the identification and consideration of the flooding protection requirement site characteristics set forth above are acceptable and meet the requirements of 10 CFR 52.17(a)(1)(vi), 10 CFR 100.20(c), and 10 CFR 100.21(d).

In view of the above, the staff finds the applicant's proposed site characteristics related to flooding protection requirements for inclusion in an ESP for the applicant's site, should one be issued, acceptable.

## 3. Design Certification Reviews

The following statement should be preceded by a list of the applicable site parameters used for the plant:

The NRC staff acknowledges that the applicant has selected the site parameters referenced above for plant design inputs (a subset of which is included as Tier 1 information) and agrees that they are representative of a reasonable number of sites that have been or may be considered for a COL application. Flood protection measures are site-specific and will be addressed by the COL applicant. This should include the provision of information sufficient to demonstrate that the design of the plant falls within the site parameters specified by the siting review.

## V. IMPLEMENTATION

The staff will use this SRP section in performing safety evaluations of DC applications and license applications submitted by applicants pursuant to 10 CFR Part 50 or 10 CFR Part 52. Except when the applicant proposes an acceptable alternative method for complying with specified portions of the Commission's regulations, the staff will use the method described herein to evaluate conformance with Commission regulations.

The provisions of this SRP section apply to reviews of applications submitted six months or more after the date of issuance of this SRP section, unless superseded by a later revision.

## VI. REFERENCES

1. 10 CFR Part 50, Appendix A, General Design Criterion 1, "Quality Standards and Records."
2. 10 CFR Part 50, Appendix A, General Design Criterion 2, "Design Bases for Protection Against Natural Phenomena."
3. 10 CFR Part 50, Appendix A, General Design Criterion 44, "Cooling Water."
4. 10 CFR Part 100, "Reactor Site Criteria."
5. ANSI/ANS-2.8-1992, "Determining Design Basis Flooding at Power Reactor Sites." Historical Technical Reference.
6. "Coastal Engineering Manual," Report Number EM 1110-2-1100, U.S. Army Corps of Engineers, Coastal and Hydraulics Laboratory - Engineer Research and Development Center, Waterways Experiment Station - Vicksburg, Mississippi (2006).
7. "Design Standards No. 3, Canals and Related Structures," Chapter 2 of "General Design Information for Structures," Bureau of Reclamation, U.S. Department of the Interior, April 1962.
8. Regulatory Guide 1.29, "Seismic Design Classification."
9. Regulatory Guide 1.59, "Flood Design Basis for Nuclear Power Plants."
10. Regulatory Guide 1.102, "Flood Protection for Nuclear Power Plants."

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### **PAPERWORK REDUCTION ACT STATEMENT**

The information collections contained in the Standard Review Plan are covered by the requirements of 10 CFR Part 50 and 10 CFR Part 52, and were approved by the Office of Management and Budget, approval number 3150-0011 and 3150-0151.

### **PUBLIC PROTECTION NOTIFICATION**

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

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