

## Acceptance Review Checklist for Environmental Reports Associated with License Renewal Applications

This document summarizes, in checklist form, the 10 CFR Part 51 requirements for information to be provided in supplemental environmental reports (ERs) supporting license renewal applications (LRAs). The requirements regarding information to be included in LRA ERs are codified at 10 CFR 51.45 and 51.53(c). Additional guidance to applicants regarding preparation of supplemental environmental reports supporting license renewal applications is provided in Regulatory Guide 4.2, Supplement 1, *Preparation of Supplemental Environmental Reports for Applications to Renew Nuclear Power Plant Operating Licenses*. Prior to completing an acceptance review, staff members are encouraged to review the above-noted sections of 10 CFR Part 51 and Regulatory Guide 4.2, Supplement 1.

The absence of one or more of the required elements should be evaluated by the staff to determine whether supplemental information needs to be provided by the applicant prior to docketing of the application. Review of applicable sections of NUREG-1555, Supplement 1, *Standard Review Plans for Environmental Reviews for Nuclear Power Plants, Supplement 1: Operating License Renewal*, may assist the staff in making a determination regarding acceptability for docketing where required information is deficient. In the event an LRA is accepted for docketing despite the absence of required information, the applicant should be notified in the acceptance letter that the subject information will need to be developed through the environmental audit process or through requests for additional information.

The absence of any of the supplemental information recommended in Regulatory Guide 4.2, Supplement 1, will not require that supplemental information be provided prior to docketing of an application; however, it may be appropriate to notify the applicant that the subject information will need to be developed through the environmental audit process or through requests for additional information.

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### Environmental Reports--General Requirements

[10 CFR 51.45<sup>1</sup>]

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- Environmental report contains a description of the proposed action.
  - Environmental report contains a statement of the purposes of the proposed action.
  - Environmental report contains a description of the environment affected. [10 CFR 51.45(b)]
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- Environmental report discusses the impact of the proposed action on the environment. [10 CFR 51.45(b)(1)]
  - Environmental report discusses any adverse environmental effects which cannot be avoided should the proposal be implemented. [10 CFR 51.45(b)(2)]
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<sup>1</sup> [49 FR 9381, Mar. 12, 1984, as amended at 61 FR 28486, June 5, 1996; 61 FR 66542, Dec. 18, 1996; 68 FR 58810, Oct. 10, 2003]

- Environmental report discusses alternatives to the proposed action. [10 CFR 51.45(b)(3)]

The discussion of alternatives should be sufficiently complete to aid the Commission in developing and exploring, pursuant to section 102(2)(E) of NEPA, "appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." To the extent practicable, the environmental impacts of the proposal and the alternatives should be presented in comparative form.

[10 CFR 51.45(b)(3)]

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- Environmental report discusses the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. [10 CFR 51.45(b)(4)]

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- Environmental report discusses any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. [10 CFR 51.45(b)(5)]

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- Environmental report includes an analysis that considers and balances the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects. [10 CFR 51.45(c)]

Environmental reports prepared at the license renewal stage pursuant to § 51.53(c) need not discuss the economic or technical benefits and costs of either the proposed action or alternatives except insofar as such benefits and costs are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation.

Environmental reports prepared pursuant to § 51.53(c) need not discuss other issues not related to the environmental effects of the proposed action and alternatives.

The analyses for environmental reports shall, to the fullest extent practicable, quantify the various factors considered. To the extent that there are important qualitative considerations or factors that cannot be quantified, those considerations or factors shall be discussed in qualitative terms.

The environmental report should contain sufficient data to aid the Commission in its development of an independent analysis.

[10 CFR 51.45(c)]

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- Environmental report lists all Federal permits, licenses, approvals and other entitlements which must be obtained in connection with the proposed action and describes the status of compliance with these requirements.
  - Environmental report includes a discussion of the status of compliance with applicable environmental quality standards and requirements which have been imposed by Federal, State, regional, and local agencies having responsibility for environmental protection, including, but not

limited to, applicable zoning and land-use regulations, and thermal and other water pollution limitations or requirements.

- The discussion of alternatives in the report includes a discussion of whether the alternatives will comply with such applicable environmental quality standards and requirements.

[10 CFR 51.45(d)]

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The information submitted pursuant to 10 CFR 51.45 (b) through (d) should not be confined to information supporting the proposed action but should also include adverse information.

[10 CFR 51.45(e)]

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**Post-construction environmental reports.**

[10 CFR 51.53<sup>2</sup>]

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**Operating license renewal stage.**

[10 CFR 51.53(c)]

- Environmental report description of the proposed action includes the applicant's plans to modify the facility or its administrative control procedures as described in accordance with § 54.21. The report must describe in detail the modifications directly affecting the environment or affecting plant effluents that affect the environment.

[10 CFR 51.53(c)(2)]

The report is not required to include discussion of need for power or the economic costs and economic benefits of the proposed action or of alternatives to the proposed action except insofar as such costs and benefits are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation.

The environmental report need not discuss other issues not related to the environmental effects of the proposed action and the alternatives.

In addition, the environmental report need not discuss any aspect of the storage of spent fuel for the facility within the scope of the generic determination in § 51.23(a) and in accordance with § 51.23(b).

[10 CFR 51.53(c)(2)]

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<sup>2</sup> [61 FR 66543, Dec. 18, 1996, as amended at 64 FR 48506, Sept. 3, 1999; 68 FR 58810, Oct. 10, 2003]

The environmental report must contain analyses of the environmental impacts of the proposed action, including the impacts of refurbishment activities, if any, associated with license renewal and the impacts of operation during the renewal term, for applicable Category 2 issues, as discussed below.

[10 CFR 51.53(c)(3)(ii)]

While the environmental report for the operating license renewal stage is not required to contain analyses of the environmental impacts of the license renewal issues identified as Category 1 issues, the ER should list those Category 1 issues that apply to the plant and identify the Category 1 issues that do not apply to the plant. The findings in NUREG-1437 for the applicable Category 1 issue are incorporated by reference in the ER.

[10 CFR 51.53(c)(3)(i) and RG 4.2, Supp. 1]

***Plant utilizes cooling towers or cooling ponds and withdraws make-up water from a river whose annual flow rate is less than  $3.15 \times 10^{12}$  ft<sup>3</sup>/year ( $9 \times 10^{10}$  m<sup>3</sup>/year).***

- Environmental report contains an assessment of the impact of the proposed action on the flow of the river.
- Environmental report contains an assessment of the impacts of the withdrawal of water from the river on alluvial aquifers during low flow.
- Related impacts on in-stream and riparian ecological communities are provided.

[10 CFR 51.53(c)(3)(ii)(A)]

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***Plant utilizes once-through cooling or cooling pond heat dissipation systems.***

- A copy of current Clean Water Act 316(b) determinations and, if necessary, a 316(a) variance in accordance with 40 CFR Part 125, or equivalent State permits and supporting documentation are provided.

**OR**

- Environmental report contains an assessment of the impact of the proposed action on fish and shellfish resources resulting from heat shock and impingement and entrainment.

[10 CFR 51.53(c)(3)(ii)(B)]

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***Plant uses Ranney wells or pumps more than 100 gallons (total onsite) of groundwater per minute.***

- Environmental report contains an assessment of the impact of the proposed action on groundwater use.

[10 CFR 51.53(c)(3)(ii)(C)]

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***Plant is located at an inland site and utilizes cooling ponds.***

- Environmental report contains an assessment of the impact of the proposed action on groundwater quality.

[10 CFR 51.53(c)(3)(ii)(D)]

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**All Plants**

- Environmental report contains an assessment of the impact of refurbishment and other license-renewal-related construction activities on important plant and animal habitats.
  - Environmental report contains an assessment of the impact of the proposed action on threatened or endangered species in accordance with the Endangered Species Act.  
[10 CFR 51.53(c)(3)(ii)(E)]
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**Plant is located in or near a Clean Air Act non-attainment or maintenance area.**

- Environmental report contains an assessment of vehicle exhaust emissions anticipated at the time of peak refurbishment workforce in accordance with the Clean Air Act as amended.  
[10 CFR 51.53(c)(3)(ii)(F)]
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**Plant uses a cooling pond, lake, or canal or discharges into a river having an annual average flow rate of less than  $3.15 \times 10^{12}$  ft<sup>3</sup>/year ( $9 \times 10^{10}$  m<sup>3</sup>/year).**

- Environmental report contains an assessment of the impact of the proposed action on public health from thermophilic organisms in the affected water.  
[10 CFR 51.53(c)(3)(ii)(G)]
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**Plants with transmission lines that were constructed for the specific purpose of connecting the plant to the transmission system.**

- Materials demonstrating that transmission lines meet the recommendations of the National Electric Safety Code for preventing electric shock from induced currents are provided.

**OR**

- Environmental report contains an assessment of the impact of the proposed action on the potential shock hazard from the transmission lines.  
[10 CFR 51.53(c)(3)(ii)(H)]
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**All Plants**

- Environmental report contains an assessment of the impact of the proposed action on housing availability.
  - Environmental report contains an assessment of the impact of the proposed action on land-use.
  - Environmental report contains an assessment of the impact of the proposed action on public schools (impacts from refurbishment activities only) within the vicinity of the plant.
  - Environmental report contains an assessment of the impact of population increases attributable to the proposed project on the public water supply.  
[10 CFR 51.53(c)(3)(ii)(I)]
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**All Plants**

- Environmental report contains an assessment of the impact of the proposed project on local transportation during periods of license renewal refurbishment activities and during the term of the renewed license.

[10 CFR 51.53(c)(3)(ii)(J)]

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**All Plants**

- Environmental report contains an assessment as to whether any historic or archaeological properties will be affected by the proposed project.

[10 CFR 51.53(c)(3)(ii)(K)]

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***Plants for which the staff has not previously considered severe accident mitigation alternatives for the applicant's plant in an environmental impact statement or related supplement or in an environmental assessment.***

- Environmental report contains a consideration of alternatives to mitigate severe accidents.

[10 CFR 51.53(c)(3)(ii)(L)]

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**All Plants**

- Environmental report must contain a consideration of alternatives for reducing adverse impacts for all Category 2 license renewal issues.

[10 CFR 51.53(c)(3)(iii)]

- Environmental report must contain any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware.

[10 CFR 51.53(c)(3)(iv)]

The environmental report should describe the information gathering and review process used by the applicant in developing the environmental report. The environmental report should explain how the process would result in the identification of new and significant information concerning Category 1 issues and issues not listed in Appendix B to Subpart A of 10 CFR Part 51. The explanation should address (1) the methods used by the applicant that will make it cognizant of new information, if it exists, and (2) the process for evaluating the significance of new information, if found. Examples of means for identifying new information include review of environmental monitoring results, review of related scientific literature, surveys of the applicant's environmental and operations staff, exchange of information among licensees through peer groups and industry organizations, consultations with academicians knowledgeable of the local environment, and consultations with Federal, State, Tribal, and local environmental, natural resource, permitting, and land use agencies. The description of the review process for evaluating new information for significance should include the organizational procedures for handling reports of new information and the criteria used to determine the applicability of such information. An applicant who is not cognizant of any new and significant information should so state in the ER.

[RG 4.2, Supp. 1, Chapter 5]

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