

United States
Nuclear Regulatory Commission




Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors

Standard Review Plan and Acceptance Criteria

February 1996

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United States Nuclear Regulatory Commission Official Hearing Exhibit																									
In the Matter of: AEROTEST OPERATIONS, INC. (Aerotest Radiography and Research Reactor)																									
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Office of Nuclear Reactor Regulation
Division of Reactor Program Management

15 FINANCIAL QUALIFICATIONS

This chapter provides review and acceptance criteria for financial information submitted to NRC by applicants for non-power reactor licenses. This information is used to establish that the applicant is financially qualified to own, construct, operate, and decommission a non-power reactor. This information is usually submitted along with the application for a construction permit and an initial operating license or along with the application for license renewal. Financial qualifications cover three areas:

- financial ability to construct the non-power reactor facility authorized by the construction permit
- financial ability to safely operate the facility
- financial ability to safely decommission the facility so that the NRC can terminate the facility license at the end of the facility's use

Financial information to be submitted by the applicant is discussed in 10 CFR 50.33(f) and (k). The cover letter for the construction permit and operating license application, or for the license renewal application, can refer to this chapter of the SAR for complete financial information. If the applicant considers its financial information to be proprietary, an affidavit in accordance with 10 CFR 2.790 shall be submitted to request withholding of the information from the public. If possible, a non-proprietary version of the financial information should also be submitted.

Because the review of this information requires specialized knowledge that the non-power reactor technical reviewer usually does not possess, this financial information is submitted to expert financial reviewers (located in the License Renewal and Environmental Review Project Directorate in the Office of Nuclear Reactor Regulation at the time of this writing). The financial reviewer may ask the technical reviewer to comment on the reasonableness of the cost estimates submitted by an applicant.

15.1 Financial Ability To Construct a Non-Power Reactor

Areas of Review

In this section, the reviewer should evaluate information which demonstrates that the applicant possesses, or has reasonable assurance of obtaining, the funds necessary to cover estimated construction costs and related fuel cycle costs.

Areas of review should include the following:

- estimates of construction costs
- estimates of fuel cycle costs
- sources of funds to cover these costs

Additional information about the areas of review for construction financial assurance can be found in this section of the format and content guide. If a substantial percentage of the funding sources is not firm enough to provide reasonable assurance that the facility will be constructed as described in the application, the staff may either require the applicant to provide firm sources of funding before NRC issues the construction permit or may make the construction permit conditional upon the applicant ultimately securing the funds needed.

Acceptance Criteria

The acceptance criteria for the information on financial assurance for construction should include the following:

- The applicant should estimate the construction cost and give a reliable basis for the estimate, such as the calculations of the design architect or the engineering company, construction bids, or comparison to other completed, similar non-power reactors.
- The applicant should estimate the fuel cycle cost and give a reliable basis for the estimate, such as a calculation of fuel use and estimates of fuel vendors and other contractors or the experience of licensees of similar facilities.
- The applicant should discuss the sources of funding for construction, the amount of funding that is committed, and the amount that is potentially available; the applicant should confirm committed sources and discuss the conditions under which potential sources of funding would become committed.

Review Procedures

The reviewer should submit information provided by the applicant concerning reasonable assurance of construction financing to the License Renewal and Environmental Review Project Directorate for expert financial review. The financial reviewer may ask the technical reviewer to comment on the reasonableness of the estimates of construction and fuel cycle costs, based on the technical reviewer's knowledge of costs to construct other non-power reactors.

Evaluation Findings

This section of the SAR should contain sufficient information to support the following type of conclusion, which will be included in the staff's safety evaluation report:

- The applicant has supplied financial information for construction and fuel cycle costs. The staff reviewed the financial ability of the applicant to construct the proposed facility and to cover fuel cycle costs. The staff concludes that there is reasonable assurance that funds will be made available to construct and cover fuel cycle costs for the facility and that the financial status of the applicant regarding construction and fuel cycle costs is in accordance with the requirements of 10 CFR 50.33(f). Therefore, the staff concludes that the applicant's financial qualifications for construction of the facility and fuel cycle costs associated with the facility are acceptable.

15.2 Financial Ability To Operate a Non-Power Reactor

Areas of Review

In this section the reviewer should evaluate information which demonstrates that the applicant possesses or has reasonable assurance of obtaining the funds necessary to cover estimated operating costs for the duration of the license.

Areas of review should include the following:

- estimates of facility operational costs, focusing on the first 5 years of operation
- sources of funds to cover operational costs, focusing on the first 5 years of operation
- percentage of the cost of the operation of the facility devoted to commercial activities

Additional information about the areas of review for financial assurance for operations can be found in this section of the format and content guide.

Acceptance Criteria

The acceptance criteria for the information on financial assurance for operations should include the following:

- The applicant should estimate the first 5 years of operating cost and give a reliable basis for the estimate, such as past operating costs or costs of operating similar facilities.
- The applicant should discuss the sources of funding for operating costs, the amount of funding that is committed, and the amount that is potentially available; the applicant should confirm committed sources and discuss conditions under which potential sources of funding would become committed and how the facility can be safely operated if some potential sources of funding are not realized.
- If the facility is to be licensed as a non-commercial, non-power reactor, the applicant should show that less than 50 percent of the cost of operating the facility is devoted to commercial activities.

Review Procedures

The reviewer should submit information provided by the applicant concerning reasonable assurance of operating costs to the License Renewal and Environmental Review Project Directorate for expert financial review. The financial reviewer may ask the technical reviewer to comment on the reasonableness of the estimates of operating costs, based on the technical reviewer's knowledge of costs to operate other non-power reactors. The financial reviewer may also ask the technical reviewer to comment on the activities considered to be commercial activities at a non-power reactor.

Evaluation Findings

This section of the SAR should contain sufficient information to support the following type of conclusion, which will be included in the staff's safety evaluation report:

- The applicant has supplied financial information for operating costs. The staff reviewed the financial ability of the applicant to operate the proposed facility. The staff concludes that funds will be made available to operate the facility and that the financial status of the applicant regarding operating costs is in accordance with the requirements of 10 CFR 50.33(f). Therefore, the staff concludes that the financial qualifications of the applicant for operating the facility are acceptable. The staff has also reviewed the proposed conduct of commercial activities at the facility. Because the cost of conducting commercial activities at the facility is less than 50 percent of the total cost of operating the facility, the staff concludes that the facility is not a commercial non-power reactor.

15.3 Financial Ability To Decommission the Facility

Areas of Review

In this section the reviewer should evaluate information indicating how reasonable assurance will be provided that funds will be available to decommission the facility.

The reviewer should examine the following:

- the cost estimate for decommissioning the facility
- the method or methods of providing funds for decommissioning
- how the cost estimate for decommissioning the facility is adjusted periodically over the life of the facility

Additional information about the areas of review for financial assurance for decommissioning can be found in this section of the format and content guide.

Acceptance Criteria

The acceptance criteria for the information on financial assurance for decommissioning should include the following:

- The applicant should discuss the decommissioning method to be used for the facility in sufficient detail to permit cost estimates to be developed.
- The applicant should estimate decommissioning costs and take into account the decommissioning method to be used. The decommissioning cost estimates are comparable to those for similar reactor designs reviewed by the staff or are comparable to the actual costs for the decommissioning of similar designs.
- The applicant should propose a method of funding decommissioning costs that meets the requirements of the regulations.
- The applicant should propose a method of periodically adjusting the decommissioning cost based on actual cost changes or changes in cost indices. Funding should be adjusted on the basis of cost changes.

Review Procedures

The reviewer should submit information provided by the applicant concerning reasonable assurance of decommissioning costs to the License Renewal and

Environmental Review Project Directorate for expert financial review. The financial reviewer may ask the technical reviewer to comment on the reasonableness of the estimates of the decommissioning costs, based on the technical reviewer's knowledge of decommissioning costs at other non-power reactors. The cost of high-level radioactive waste and spent fuel disposal is discussed in Section 1.7 of this document. The applicant shall have entered into an agreement with DOE for disposal of this material.

Evaluation Findings

This section of the SAR should contain sufficient information to support the following type of conclusion, which will be included in the staff's safety evaluation report:

- The applicant has supplied financial information for decommissioning costs. The staff reviewed the financial ability of the applicant to decommission the proposed facility. The staff finds the applicant's justification for the estimated cost of decommissioning the facility acceptable. The applicant has provided financial assurance for decommissioning the facility by the *(state the method used here)* method. The applicant has proposed a method for periodically adjusting the cost estimate and funding of decommissioning that the staff finds acceptable. The staff concludes that funds will be made available to decommission the facility and that the financial status of the applicant regarding decommissioning costs is in accordance with the requirements of 10 CFR 50.33(k) and 50.75. Therefore, the staff concludes that the financial qualifications of the applicant for decommissioning of the facility are acceptable.