

OMB SUPPORTING STATEMENT FOR FINAL RULE  
10 CFR PARTS 50 AND 52,  
CONSIDERATION OF AIRCRAFT IMPACTS  
FOR NEW NUCLEAR POWER REACTORS  
(3150-0011 and 3150-0151)  
REVISION

Description of the Information Collection

The Nuclear Regulatory Commission (NRC) is amending its regulations in 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," to require applicants for new nuclear power reactors to perform a design-specific assessment of the effects of the impact of a large, commercial aircraft. The applicant is required to use realistic analyses to identify and incorporate design features and functional capabilities to show, with reduced use of operator actions, that either the reactor core remains cooled or the containment remains intact, and either spent fuel cooling or spent fuel pool integrity is maintained. These requirements apply to applicants for new construction permits; new operating licenses that reference a new construction permit; new standard design certifications; renewal of any of the four existing design certifications if the design has not previously been amended to comply with the rule; new standard design approvals; manufacturing licenses that don't reference a standard design certification or standard design approval, or that reference a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule; and combined licenses that don't reference a standard design certification, standard design approval, or manufactured reactor, or that reference a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule. In addition, these amendments contain requirements for control of changes to any design features or functional capabilities credited to show that the facility can withstand the effects of an aircraft impact. This rule should result in the new nuclear power reactor facilities being more inherently robust with regard to an aircraft impact than if they were designed in the absence of this final rule (aircraft impact rule). This final rule provides an enhanced level of protection beyond that which is provided by the existing adequate protection requirements, which all operating power reactors are required to meet.

The benefits of the final rule can only be evaluated on a qualitative basis. The final rule will result in qualitative benefits with respect to the following attributes.<sup>1</sup>

*Public Health (Accident).* The final rule will reduce the risk that public health will be affected by the release of radioactive materials to the environment from the impact of a large, commercial aircraft on a nuclear power plant.

---

<sup>1</sup> The list of potential attributes that the final rule could affect were identified by using the potential attributes provided in Chapter 5 of NUREG/BRB0184, ARegulatory Analysis Technical Evaluation Handbook== (January 1997).

*Occupational Health (Accident).* The final rule will reduce the risk that occupational health will be affected by the release of radioactive materials to the environment from the impact of a large, commercial aircraft on a nuclear power plant.

*Offsite Property.* The final rule will reduce the risk that offsite property will be affected by the release of radioactive materials to the environment from the impact of a large, commercial aircraft on a nuclear power plant.

*Onsite Property.* The final rule will reduce the risk that onsite property will be affected by the release of radioactive materials to the environment from the impact of a large, commercial aircraft on a nuclear power plant.

*Improvements in Knowledge.* The final rule will improve knowledge with regard to an aircraft impact by ensuring that nuclear power plant designers perform a rigorous assessment of the design to identify design features and functional capabilities that could provide additional inherent protection to withstand the effects of an aircraft impact.

*Safeguards and Security Considerations.* The final rule addresses the capability of new nuclear power reactors to withstand the effects of an aircraft impact. The rule is based both on enhanced public health and safety and enhanced common defense and security, but is not necessary for adequate protection. Rather, this rule's goal is to enhance the facility's inherent robustness at the design stage.

The final rule will also result in costs to applicants, licensees, and the NRC with respect to the following attributes.

*Industry Implementation.* The final rule will require applicants for new nuclear power reactors to perform a design-specific assessment of the effects of the impact of a large, commercial aircraft. Applicants for new nuclear power reactors are required to use realistic analyses to identify and incorporate design features and functional capabilities to show, with reduced use of operator actions, that either the reactor core remains cooled or the containment remains intact, and either spent fuel cooling or spent fuel pool integrity is maintained. Applicants will incur costs to develop a safeguards information (SGI) program, perform the assessment, and incorporate the results into the design.

*Industry Operation.* The final rule will require applicants and licensees for new nuclear power reactors to retain the aircraft impact assessment throughout the pendency of the application and for the term of the certification or license (including any period of renewal). Applicants and licensees will incur costs to retain the assessment and supporting documentation.

*NRC Implementation.* Under the final rule, the NRC will incur costs to develop guidance on performing an aircraft impact assessment and to review the actions taken by the applicant to comply with the aircraft impact rule.

Because the final rule is applicable to applicants under both 10 CFR Parts 50 and 52, the NRC is relocating the aircraft impact assessment requirements that were contained in proposed

10 CFR 52.500 to a new section, 10 CFR 50.150. This change is also consistent with the recent revision to 10 CFR Part 52, where the NRC took a comprehensive approach to reorganizing 10 CFR Part 52 and making conforming changes throughout 10 CFR Chapter I, ANuclear Regulatory Commission,@ to reflect the licensing and approval processes in 10 CFR Part 52. In making conforming changes involving 10 CFR Part 50 provisions in that rulemaking, the NRC adopted the general principle of keeping technical requirements in 10 CFR Part 50 and maintaining applicable procedural requirements in 10 CFR Part 52. For these reasons, the NRC is relocating the proposed aircraft impact requirements from proposed 10 CFR 52.500 to 10 CFR 50.150.

#### JUSTIFICATION

The Commission believes that it is prudent for nuclear power plant designers to take into account the potential effects of the impact of a large, commercial aircraft. The Commission has determined that the impact of a large, commercial aircraft is a beyond-design-basis event, and the NRC=s requirements that apply to the design, construction, testing, operation, and maintenance of design features and functional capabilities for design basis events will not apply to design features or functional capabilities selected by the applicant solely to meet the requirements of this final rule. The NRC's approach to aircraft impacts is consistent with its previous approach to beyond-design-basis events. The objective of this rule is to require nuclear power plant designers to perform a rigorous assessment of the design to identify design features and functional capabilities that could provide additional inherent protection to withstand the effects of an aircraft impact (i.e., meet the rule's acceptance criteria). This rule should result in new nuclear power reactor facilities being more inherently robust with regard to an aircraft impact than if they were designed in the absence of this final rule. This final rule provides an enhanced level of protection beyond that which is provided by the existing adequate protection requirements, which all operating power reactors are required to meet.

Requiring applicants for new nuclear power reactors to perform a rigorous aircraft impact assessment and identify and incorporate into their design those design features and functional capabilities that address the effects of a beyond-design-basis aircraft impact is consistent with the NRC's historic approach to beyond-design-basis events and with the NRC=s position in its APolicy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants@ (50 FR 32138; August 8, 1985). The policy statement notes, "The Commission expects that vendors engaged in designing new standard [or custom] plants will achieve a higher standard of severe accident safety performance than their prior designs." The NRC reiterated that regulatory approach in its APolicy Statement on the Regulation of Advanced Nuclear Power Plants,@ (59 FR 35461; July 12, 1994), when it stated, "The Commission expects that advanced reactors would provide enhanced margins of safety and/or utilize simplified, inherent, passive, or other innovative means to accomplish their safety functions." These concepts continue to be NRC policy as reflected in the NRC's 2008 "Policy Statement on the Regulation of Advanced Reactors" (73 FR 60612; October 14, 2008). This regulatory approach has demonstrated its success, as all designs subsequently

submitted to and certified by the Commission represent substantial improvement in safety for operational events and accidents. The final aircraft impact rule will further enhance the safety of new nuclear power plants for aircraft impacts and is consistent with these policy statements.

The NRC is seeking clearance with respect to the final changes to 10 CFR Parts 50 and 52 regarding the requirements under the new 10 CFR 50.150 for applicants for new nuclear power reactors to perform a design-specific assessment of the effects of the impact of a large, commercial aircraft. In addition, the applicant is required to use realistic analyses to identify and incorporate into the design those design features and functional capabilities which show that, with reduced use of operator action: (1) the reactor core remains cooled or the containment remains intact and (2) spent fuel cooling or spent fuel pool integrity is maintained.

1. Need for and Practical Utility of the Collection of Information

10 CFR 50.34(a)(13). Section 50.34, "Contents of construction permit and operating license applications: technical information," describes the technical information which must be provided in applications for construction permits and operating licenses subject to 10 CFR 50.150. The final rule revises this section by adding a new paragraph (a)(13) to require stationary power reactor applicants who apply for a construction permit to submit to the NRC the information required by 10 CFR 50.150(b) as part of their preliminary safety analysis report (PSAR). The burden for submitting this information is covered under the final 10 CFR 50.150(b). [Note: This provision was added to the proposed rule requirements. The next renewal to the OMB Supporting Statement for 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," will include this revision. Furthermore, because the final rule is applicable to applicants under both 10 CFR Parts 50 and 52, the NRC relocated the aircraft impact assessment requirements that were contained in proposed 10 CFR 52.500 to a new section, 10 CFR 50.150.]

10 CFR 50.34(b)(12). The final rule revises 10 CFR 50.34 by adding a new paragraph (b)(12) to require stationary power reactor applicants who apply for an operating license which is subject to 10 CFR 50.150(a) to submit to the NRC the information required by 10 CFR 50.150(b) as part of their final safety analysis report (FSAR). The burden for submitting this information is covered under the final 10 CFR 50.150(b). [Note: This provision was added to the proposed rule requirements. The next renewal to the OMB Supporting Statement for 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," will include this revision.]

10 CFR 50.150 Aircraft impact assessment [proposed 10 CFR 52.500]. Section 50.150, "Aircraft impact assessment," is a new requirement applicable at the design stage for new nuclear power facilities. The aircraft impact rule requires a design-specific assessment of the effects on the facility of the impact of a large, commercial aircraft, and incorporation of design features and functional capabilities to show (using realistic analyses), with reduced use of operator actions, that: (1) the reactor core remains cooled, or the containment remains intact; and (2) spent fuel cooling or spent fuel pool integrity is maintained. The aircraft impact rule was included in 10 CFR Part 52 and designated as

10 CFR 52.500 at the proposed rule stage, but is now included in 10 CFR Part 50 and redesignated as 10 CFR 50.150. This is consistent with the NRC's intention that this technical requirement applies to licenses under 10 CFR Part 50 as well as licenses and regulatory approvals under 10 CFR Part 52.

10 CFR 50.150(a) Assessment requirements [proposed 10 CFR 52.500(a) and(b)]. Paragraph (a) sets forth the requirements for an assessment of aircraft impact to be applied to the design of new nuclear power facilities. Paragraph (a) also contains the key provisions relating to the nature of the aircraft impact characteristics to be utilized when performing the assessment. The requirements relating to the assessment are separated into two subparagraphs, (a)(1) and (a)(2), to help readers distinguish between the assessment of aircraft impact, and the characteristics of the aircraft impact that must be used by the facility designer in performing the assessment. Finally, paragraph (a)(3) lists the licenses, certifications, and regulatory approvals involving nuclear power reactor design to which the assessment requirements in paragraph (a) apply.

10 CFR 50.150(a)(1) Assessment [proposed 10 CFR 52.500(b) and (c)]. Paragraph (a)(1) requires a design-specific assessment of the effects of an impact of a large, commercial aircraft on a nuclear power reactor facility. The applicant is required to use realistic analyses to identify and incorporate into the design those design features and functional capabilities to show, with reduced use of operator actions, that: (1) the reactor core remains cooled, or the containment remains intact; and (2) spent fuel cooling or spent fuel pool integrity is maintained. Every new nuclear power plant will meet the aircraft impact rule, which is one of the NRC's key objectives.

10 CFR 50.150(a)(2) Aircraft impact characteristics [proposed 10 CFR 52.500(b)]. Paragraph (a)(2) states that the assessment required by 10 CFR 50.150(a) must be based on the aircraft impact characteristics specified in this paragraph (a)(2). The characteristics of the aircraft impact must be that of a large, commercial aircraft used for long distance flights in the United States, with aviation fuel loading typically used in such flights, and an impact speed and angle of impact considering the ability of both experienced and in experienced pilots to control large, commercial aircraft at the low altitude representative of a nuclear power plant's low profile.

10 CFR 50.150(a)(3) Applicability [proposed 10 CFR 52.500(a)]. Paragraph (a)(3) sets forth that the assessment requirement for the aircraft impact rule applies to: (1) construction permits under 10 CFR Part 50 issued after the effective date of the final rule; (2) operating licenses for which the underlying construction permits were issued after the effective date of the final rule; (3) design certifications issued after the effective date of the final rule; (4) the four currently-approved design certifications in 10 CFR Part 52, Appendices A through D at the time of renewal, but only if they have not been amended to comply with the aircraft impact rule by that time; (5) standard design approvals issued after the effective date of the final rule; (6) combined licenses issued

under

10 CFR Part 52 which either do not reference a standard design certification, standard design approval, or manufactured reactor, or reference one of the four currently approved design certifications if the referenced design has not been amended to comply with the aircraft impact rule; and (7) manufacturing licenses that do not reference a standard design approval or standard design certification meeting the requirements of this section.

10 CFR 50.150(b) Content of application [proposed 10 CFR 52.500(c)].

Paragraph (b) requires the PSAR or FSAR for each license, certification, and regulatory approval application which is subject to 10 CFR 50.150(a) to include certain specified information related to compliance with the aircraft impact rule. This information consists of: (1) a description of the design features and functional capabilities which the applicant has selected (identified) for inclusion in the design to show that the facility can withstand the effects of an aircraft impact; and (2) a concise description of how the identified design features and functional capabilities met the assessment requirements in 10 CFR 50.150(a)(1). This is an increase in reporting burden to the applicants for submitting the information related to complying with the aircraft impact rule and is captured under this section. This is a \*one-time collection.

10 CFR 50.150(c) Control of changes [proposed 10 CFR 52.502]. Paragraph (c) clarifies the requirements governing changes to information in the PSAR or FSAR which reflects the results of compliance with the aircraft impact rule for each of the licensing or certification processes subject to the aircraft impact rule.

10 CFR 50.150(c)(1): Paragraph (c)(1) provides that, for construction permits which are subject to the aircraft impact rule, if the permit holder changes the information required by 10 CFR 50.34(a)(13) to be included in the PSAR, then the permit holder shall consider the effect of the changed feature or capability on the original assessment required by 10 CFR 50.150(a) and amend the information required by 10 CFR 50.34(a)(13) to be included in PSAR to describe how the modified design features and functional capabilities continue to meet the assessment requirements in 10 CFR 50.150(a)(1).

10 CFR 50.150(c)(2): Paragraph (c)(2) provides that, for operating licenses which are subject to the aircraft impact rule, if the licensee changes the information required by 10 CFR 50.34(b)(12) to be included in the FSAR, then the licensee shall consider the effect of the changed feature or capability on the original assessment required by 10 CFR 50.150(a) and amend the information required by 10 CFR 50.34(b)(12) to be included in the FSAR to describe how the modified design features and functional capabilities continue to meet the assessment requirements in 10 CFR 50.150(a)(1).

10 CFR 50.150(c)(3): Paragraph (c)(3) provides that, for design certifications which are subject to the aircraft impact rule, generic changes to the information

required by 10 CFR 52.47(a)(28) to be included in the FSAR are governed by the applicable requirements of 10 CFR 52.63.

10 CFR 50.150(c)(4)(i): Paragraph (c)(4)(i) provides that, for combined licenses which are subject to 10 CFR 50.150(a) (i.e., combined licenses that do not reference a design certification, design approval, or manufactured reactor that complies with the rule), if the licensee changes the information required by 10 CFR 52.79(a)(47) to be included in the FSAR, then the licensee shall consider the effect of the changed feature or capability on the original assessment required by 10 CFR 50.150 and amend the information required by 10 CFR 52.79(a)(47) to be included in the FSAR to describe how the modified design features and functional capabilities continue to meet the assessment requirements in 10 CFR 50.150(a)(1).

10 CFR 50.150(c)(4)(ii): Paragraph (c)(4)(ii) provides that, for combined license applicants or holders which are not subject to 10 CFR 50.150(a) but reference a manufactured reactor which is subject to 10 CFR 50.150(a), proposed departures from the information required by 10 CFR 52.157(f)(32) to be included in the FSAR for the manufacturing license are governed by the applicable requirements in 10 CFR 52.171(b)(2).

10 CFR 50.150(c)(4)(iii): Paragraph (c)(4)(iii) provides that, for combined license applicants or holders which are not subject to 10 CFR 50.150(a) but reference a manufactured reactor which is subject to 10 CFR 50.150(a), proposed departures from the information required by 10 CFR 52.157(f)(32) to be included in the FSAR for the manufacturing license are governed by the applicable requirements in 10 CFR 52.171(b)(2).

10 CFR 50.150(c)(5)(i): Paragraph (c)(5)(i) provides that, for manufacturing licenses which are subject to 10 CFR 50.150(a), generic changes to the information required by 10 CFR 52.157(f)(32) to be included in the FSAR are governed by the applicable requirements of 10 CFR 52.171.

10 CFR 50.150(c)(5)(ii): Paragraph (c)(5)(ii) provides that, for manufacturing license applicants or holders which are subject to 10 CFR 50.150(a), proposed departures from the information required by 10 CFR 52.47(a)(28) to be included in the FSAR for the referenced standard design certification are governed by the change control requirements in the applicable design certification rule.

10 CFR 52.47(a)(28). Section 52.47, AContents of applications; technical information,@ identifies the required technical information to be included in an application for a standard design certification. The final rule revises this section by adding a new paragraph (a)(28) requiring that the FSAR contain the information required 10 CFR 50.150. This requirement applies only to those

standard design certification applications which are subject to 10 CFR 50.150, that is, those design certifications issued after the effective date of the final rule. The burden for submitting this information is covered under the final 10 CFR 50.150(b). [Note: The next renewal to the OMB Supporting Statement for 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," will include this revision.]

10 CFR 52.59(a). Section 52.59, ACriteria for renewal,@ establishes the criteria which must be met in order for the NRC to renew a standard design certification. The final rule revises paragraph (a) by adding a requirement that the Commission shall, the first time one of the four existing design certifications is to be renewed, find that the renewed design complies with the applicable requirements of the aircraft impact rule if the design certification has not already been amended to comply with the aircraft impact rule. This section currently has no information collection requirements. The information collection for renewal applicants to show compliance with the aircraft impact rule is covered under the final 10 CFR 50.150(b) (i.e., the burden for submitting the results of the aircraft impact assessment with the application). [Note: This provision was added to the proposed rule requirements. The next renewal to the OMB Supporting Statement for 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," will include this revision.]

10 CFR 52.79(a)(47). Section 52.79, AContents of applications; technical information in final safety analysis report,@ identifies the required technical information to be included in an FSAR submitted in a combined license application under 10 CFR Part 52, Subpart C, Combined Licenses. The final rule revises this section by adding a new paragraph (a)(47) requiring that the FSAR contain the information required by 10 CFR 50.150. The burden for submitting this information is covered under the final 10 CFR 50.150(b). [Note: The next renewal to the OMB Supporting Statement for 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," will include this revision.]

10 CFR 52.137(a)(26). Section 52.137, AContents of applications; technical information,@ identifies the required technical information to be included in an application for a standard design approval. The final rule revises this section by adding a new paragraph (a)(26) requiring that the FSAR contain the information required by 10 CFR 50.150. The burden for submitting this information is covered under the final 10 CFR 50.150(b). [Note: The next renewal to the OMB Supporting Statement for 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," will include this revision.]

10 CFR 52.157(f)(32). Section 52.157, AContents of applications; technical information in final safety analysis report,@ identifies the required technical

information to be included in an application for a manufacturing license. The final rule revises this section by adding a new paragraph (f)(32) requiring that the FSAR contain the information required by 10 CFR 50.150. The burden for submitting this information is covered under the final 10 CFR 50.150(b). [Note: The next renewal to the OMB Supporting Statement for 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," will include this revision.]

### **Construction Permit Applications**

Although the final rule will increase the recordkeeping burden for applicants for new construction permits, overall the burden will be negligible (3 hours/year)<sup>2</sup> and will be captured by the recordkeeping burden estimate for the entire construction permit under 10 CFR 50.71(c) (OMB clearance number 3150-0011). The records are retained by the applicant for the term of the construction permit and any period of renewal. No construction permit applications are expected to be submitted to the NRC during the next 3 years. Thus, the relevant burden is zero.

### **Operating License Applications**

Although the final rule will increase the recordkeeping burden for applicants for new operating licenses that reference a new construction permit, overall it will be negligible (3 hours/year) and will be captured by the recordkeeping burden estimate for the entire operating license under 10 CFR 50.71(c) (OMB clearance number 3150-0011). The records are retained by the applicant for the term of the operating license (40 years) and any period of renewal. No operating license applications are expected to be submitted to the NRC during the next 3 years. Thus, the relevant burden is zero.

### **Standard Design Certification Applications**

Although the final rule will increase the recordkeeping burden for applicants for new standard design certifications, overall it will be negligible (3 hours/year) and will be captured by the recordkeeping provisions in the applicable design certification rule (OMB clearance number 3150-0151). The records are retained by the applicant for the term of the certification rule (15 years), and any period of renewal. The NRC expects three applications during the next 3 years.

### **Applications for Renewal of Any of the Four Existing Design Certifications if the Design has Not Previously Been Amended to Comply with the Rule**

Although the final rule will increase the recordkeeping burden for applicants for

---

<sup>2</sup> The NRC does not expect applicants or licensees to change the information contained in the records of the aircraft impact assessment and supporting documents after the application is approved. However, these records must be maintained so that they can be reviewed before making plant modifications which have the potential to affect design features and functional capabilities credited for complying with the aircraft impact rule. The NRC expects few, if any, plant modifications that would affect these records. Therefore, the NRC estimates that 3 hours/year is the recordkeeping burden for all applicants and licensees.

renewal of any of the four existing design certifications if the design has not previously been amended to comply with the rule, overall it will be negligible (3 hours/year) and will be captured by the recordkeeping provisions in the applicable design certification rule (OMB clearance number 3150-0151). The records are retained by the applicant for the renewed term of the design certification rule (15 years). The NRC is expecting one application for renewal of one of the four existing design certifications to comply with the aircraft impact rule during the next 3 years.

### **Standard Design Approval Applications**

The NRC has no recordkeeping requirements in its regulations for a standard design approval. However, a standard design certification applicant or licensee (who had submitted a combined license application) that referenced the standard design approval will be required to retain the necessary records. For these design certification applicants or licensees, the final rule will increase the recordkeeping burden. Overall it will be negligible (3 hours/year) and will be captured by the recordkeeping provisions in the applicable design certification rule or license (OMB clearance numbers 3150-0151 and 3150-0011, respectively.) No standard design approval applications are expected to be submitted to the NRC during the next 3 years. Thus, the relevant burden is zero.

### **Combined License Applications Referencing a New Standard Design Certification, New Standard Design Approval, or Manufactured Reactor**

Although the final rule will increase the recordkeeping burden for applicants for combined license applications referencing a new standard design certification, new standard design approval, or manufactured reactor, overall it will be negligible (3 hours/year) and will be captured by the current recordkeeping burden estimate for the entire combined license under 10 CFR 50.71(c) (OMB clearance number 3150-0011) when the combined license is issued. The licensee must retain the records for the term of the license (40 years) and any period of renewal. The NRC has or will receive 22 combined license applications that reference a new standard design certification during the next 3 years.

### **Combined License Applications Not Referencing a Standard Design Certification, Standard Design Approval, or Manufactured Reactor**

Although the final rule will increase the recordkeeping burden for applicants for combined license applications not referencing a standard design certification, standard design approval, or manufactured reactor, overall it will be negligible (3 hours/year) and will be captured by the current recordkeeping burden estimate for the entire combined license under 10 CFR 50.71(c) (OMB clearance number 3150-0011) when the combined license is issued. The licensee must retain the records for the term of the license (40 years) and any period of renewal. No new combined license applications not referencing a standard design certification, standard design approval, or manufactured reactor are expected to be submitted

to the NRC during the next 3 years. Thus, the relevant burden is zero.

**Combined License Applications Referencing a Standard Design Certification Issued Before the Effective Date of the Rule Which has Not Been Amended to Comply with the Rule.**

Although the final rule will increase the recordkeeping burden for applicants for combined license applications referencing a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule, overall it will be negligible (3 hours/year) and will be captured by the current recordkeeping burden estimate for the entire combined license under 10 CFR 50.71(c) (OMB clearance number 3150-0011) when the combined license is issued. The licensee must retain the records for the term of the license (40 years) and any period of renewal. The NRC has received one combined license application that references one of the four currently approved standard design certifications in Appendices A through D of 10 CFR Part 52. The NRC expects that no other applications will be submitted to the NRC during the next 3 years.

**Manufacturing License Applications Referencing a New Standard Design Certification or New Standard Design Approval**

Although the final rule will increase the recordkeeping burden for applicants for manufacturing licenses referencing a new standard design certification or new standard design approval, overall it will be negligible (3 hours/year) and will be captured by the current recordkeeping burden estimate for the entire manufacturing license under 10 CFR 50.71(c) (OMB clearance number 3150-0011) when the manufacturing license is issued. The records are retained by the manufacturing licensee for the term of the license (15 years) and any period of renewal. No manufacturing licenses that reference a new standard design certification or new standard design approval are expected to be submitted to the NRC during the next 3 years. Thus, the relevant burden is zero.

**Manufacturing License Applications Not Referencing a Standard Design Certification or Standard Design Approval**

Although the final rule will increase the recordkeeping burden for applicants for manufacturing licenses not referencing a standard design certification or standard design approval, overall it will be negligible (3 hours/year) and will be captured by the recordkeeping burden estimate for the entire manufacturing license under 10 CFR 50.71(c) (OMB clearance number 3150-0011) when the manufacturing license is issued. The records are retained by the manufacturing licensee for the term of the license (15 years) and any period of renewal. No manufacturing licenses not referencing a standard design certification or standard design approval are expected to be submitted to the NRC during the next 3 years. Thus, the relevant burden is zero.

### **Manufacturing License Applications Referencing a Standard Design Certification Issued Before the Effective Date of the Rule Which has Not Been Amended to Comply with the Rule**

Although the final rule will increase the recordkeeping burden for applicants for manufacturing license applications referencing a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule, overall it will be negligible (3 hours/year) and will be captured by the current recordkeeping burden estimate for the entire manufacturing license under 10 CFR 50.71(c) (OMB clearance number 3150-0011) when the manufacturing license is issued. The records are retained by the manufacturing licensee for the term of the license (15 years) and any period of renewal. No manufacturing licenses not referencing a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule are expected to be submitted to the NRC during the next 3 years. Thus, the relevant burden is zero.

The final rule requires that only the results of the aircraft impact assessment be submitted with each application. The final rule does not require that the assessment be submitted to the NRC. No special forms are prescribed for submitting the results of the aircraft impact assessment with each application.

#### 2. Agency Use of the Information

The results of the aircraft impact assessment to be submitted as part of each license, certification, and regulatory approval application which is subject to the final rule will be used by the NRC to review the actions taken by the applicant to comply with this rule. This will include NRC review of the applicant's description of the identified design features and functional capabilities identified as a result of the assessment in the PSAR or FSAR, together with the description of how the identified design features and functional capabilities comply with the rule's requirements. The NRC will review the information contained in the application and reach conclusions as to whether the applicant has: (1) adequately described design features and functional capabilities in accordance with the aircraft impact rule; and (2) conducted an assessment reasonably formulated to identify design features and functional capabilities to show, with reduced use of operator action, that the facility can withstand the effects of an aircraft impact. The NRC will also confirm that the impact assessment was performed consistent with the regulatory requirements. This final rule to address the capability of new nuclear power reactors relative to an aircraft impact is based both on enhanced public health and safety and enhanced common defense and security, but is not necessary for adequate protection. Rather, this rule's goal is to enhance the facility's inherent robustness at the design stage.

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 new automated information technology when it could be beneficial to them. NRC issued a regulation on October 10, 2003 (68 FR 58792), 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, email, special Web-based interface, or other means. It is estimated that 100 percent of the applications will be submitted electronically.

4. Effort to Identify Duplication and Use Similar Information

There is no duplication of requirements and this information is not available from any source other than the applicants involved. The information required by the NRC in applications, reports, or records concerning the licensing of nuclear power plants does not duplicate other Federal information collection requirements. For example, to avoid duplication, a combined license application that references a standard design certification which complies with the requirements of 10 CFR 50.150 will not have to separately include the information required by 10 CFR 50.150 because it will be incorporated by reference to the standard design certification. The NRC has in place an ongoing 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 information collection required by this regulation will not be a burden on small business because only large companies have the technical and financial resources to support the large capital investment required to design and construct these nuclear power plants. Therefore, small businesses will not be seeking a construction permit, operating license, design certification, combined license, or manufacturing license made available by 10 CFR Parts 50 and 52. No small entities are expected to be impacted by the final rule.

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

This information is collected once from a single applicant. Applications are required only when regulatory or licensing action (as applicable) is sought on a new construction permit; new operating license that references a new construction permit; new standard design certification; renewal of any of the four existing design certifications if the design has not previously been amended to comply with the rule; new standard design approval; manufacturing license that doesn't reference a standard design certification or standard design approval, or that references a standard design certification issued before the effective date of

the rule which has not been amended to comply with the rule; and combined license that doesn't reference a standard design certification, standard design approval, or manufactured reactor, or that references a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule.

Without this \*one-time collection of information, the NRC will not have (1) a sufficient technical basis for evaluating the effects of the impact of a large, commercial aircraft on new nuclear power plants nor (2) the identification of potential design features and functional capabilities to show that the acceptance criteria in 10 CFR 50.150(a)(1) will be met. The NRC cannot collect the information any less frequently than provided in this rule or it will compromise its ability to (1) make appropriate regulatory or licensing decisions, and (2) determine whether nuclear power plant designers have performed a rigorous assessment of the design to identify design features and functional capabilities that could provide additional inherent protection to withstand the effects of an aircraft impact (i.e., that the rule's acceptance criteria are met).

7. Circumstances Which Justify Variation from OMB Guidelines

None.

8. Consultation Outside the NRC

Opportunity for public comment on the proposed rule was published in the *Federal Register* on October 3, 2007 (72 FR 56287). The public comment period closed on December 17, 2007. The NRC received 32 comment letters on the proposed rule. Three commenters addressed the information collection requirements (i.e., records retention) and are discussed below. The detailed description of the comments and the NRC responses are provided in a separate document, "Analysis of Public Comments on Consideration of Aircraft Impacts for New Nuclear Power Reactors – RIN 3150-AI19" (ADAMS Accession No. ML090610124). During the public comment period, the NRC staff held a public workshop on the proposed aircraft impact assessment rule on November 15, 2007. In addition, rulemaking related documents were made available for public review on [www.regulations.gov](http://www.regulations.gov).

Since September 11, 2001, the NRC has worked closely with the Department of Homeland Security, the Department of Defense, and other agencies both to understand their information on terrorist threats and to communicate the NRC's study results. Also, a number of foreign governments are considering the construction of new nuclear power plants. The NRC is communicating with the regulatory authorities in these countries to understand their requirements and to convey its own results and plans.

Also, the NRC is providing information based on the Commission-specified aircraft impact characteristics to plant designers or other stakeholders who have the need to know, and who meet NRC=s requirements for disclosure of such information.

Of the 32 comment letters received on the proposed rule, 3 commenters addressed the issue of information collection. These comments, which have been combined, and their resolutions are discussed below.

**Comment:** The Nuclear Energy Institute, Morgan, Lewis & Brockius, and AREVA NP Inc., stated that the existing NRC records retention requirements are sufficient. AREVA NP also stated that the records retention requirements should apply to design certification holders for the period of time that the design certification is in effect.

**NRC Response:** The NRC agrees with the commenters. No changes were made to the proposed rule's record retention requirements in the final rule. The final rule relies on the general record retention requirements in 10 CFR 50.71(c) for retention of the assessment for combined license and manufacturing license holders subject to 10 CFR 50.150. The NRC intends to similarly rely on general design certification rule provisions for retention of the assessment required by 10 CFR 50.150 for design certification applicants and combined license and manufacturing license holders that reference a design certification.

9. Payments or Gifts to Respondents

Not applicable.

10. Confidentiality of Information

Information identified as proprietary or confidential will be handled and protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b). If the applicant includes any sensitive information in its application, it will only be available to those NRC staff that are authorized and have a need-to-know. Certain information designated as Safeguards Information (SGI) is prohibited from public disclosure in accordance with the provisions of the Atomic Energy Act of 1954, as amended, Chapter 12, Section 147, or designated as classified National Security Information, in accordance with Executive Order 12958.

11. Justification for Sensitive Questions

No sensitive questions are asked in the final revisions to 10 CFR Parts 50 and 52.

12. Estimate of Annualized Burden and Burden Hour Cost

The information required by the aircraft impact assessment will be collected once from each applicant required to perform the aircraft impact assessment under 10 CFR 50.150. The final rule will increase the applicants' recordkeeping burden for:

- New construction permits;
- New operating licenses that reference a new construction permit;
- New standard design certifications;
- Renewal of any of the four existing design certifications if the design has not previously been amended to comply with the rule;
- Standard design certifications that referenced a standard design approval;
- Combined licenses referencing a new standard design certification, new standard design approval, or manufactured reactor;
- Combined licenses not referencing a standard design certification standard design approval, or manufactured reactor;
- Combined licenses referencing a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule;
- Manufacturing licenses referencing a new standard design certification or new standard design approval;
- Manufacturing licenses not referencing a standard design certification or standard design approval; and
- Manufacturing licenses referencing a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule.

This recordkeeping burden will entail the retention of the assessment and supporting documentation. Because an applicant will only spend about 3 hours/year to store these records (about 50 to 100 pages), the recordkeeping burden is considered to be negligible for this OMB clearance package (see footnote 2 for the rationale for using the value of 3 hours/year). However, this negligible increase in recordkeeping burden will be captured by other regulations as discussed in Section A.1 above.

The reporting burden for the final rule is calculated for each category of application that is expected to be submitted to the NRC during this 3-year OMB clearance period. For those categories not expected to be submitted to the NRC during this OMB clearance period, the method for calculating the reporting burden is also provided for reference, should such applications be submitted during a future OMB clearance period.

#### Section 50.150 Aircraft Impact Assessment

The final 10 CFR 50.150 is estimated to increase the reporting burden on applicants as follows.

#### **Construction Permit Applications**

During the OMB clearance period, the NRC expects that zero applications for new construction permits will be submitted to the NRC. In accordance with the final 10 CFR 50.150, each construction permit applicant for a new nuclear power reactor must perform a design-specific assessment of the effects of the impact of a large, commercial aircraft. The applicant is required to use realistic analyses to identify and incorporate design features and functional capabilities to show, with reduced use of operator actions, that either the reactor core remains cooled or the containment remains intact, and either spent fuel cooling or spent fuel pool integrity is maintained. Inclusion of any SGI in the results of the assessment submitted as part of the application must be in accordance with the applicable requirements in 10 CFR Part 73.

If an application is submitted during a future OMB clearance period, the NRC estimates that the annualized reporting burden will be 3,960 hours and calculated as follows.

The NRC estimates that it will take each applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to complete the assessment and to incorporate the results in the application. In addition, each applicant will incur a \*one-time burden to develop an SGI program to secure the assessment, results, and supporting documents. The NRC estimates that each applicant will spend 120 hours to develop the SGI program. The total burden on the applicant to collect this information is estimated to be 3,960 hours, over 1 year.

### **Operating License Applications**

During the OMB clearance period, the NRC expects that zero applications for new operating licenses that reference a new construction permit will be submitted to the NRC. If an application was submitted during a future OMB clearance period, the NRC estimates that the annualized reporting burden will be 3,960 hours and calculated as follows.

The NRC estimates that it will take each applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to complete the assessment and to incorporate the results in the application. In addition, each applicant will incur a \*one-time burden to develop an SGI program to secure the assessment, results, and supporting documents. The NRC estimates that each applicant will spend 120 hours to develop the SGI program. The total burden on the applicant to collect this information is estimated to be 3,960 hours, over 1 year.

### **Standard Design Certification Applications**

The NRC has received three applications for new standard design certifications. The NRC expects that these will be the only applications in this category to be submitted to the NRC during the OMB clearance period. The NRC does not

expect to make a decision regarding these certifications before the final aircraft impact rule becomes effective. The NRC expects that these applicants will supplement their application with the information required by the aircraft impact rule once the rule becomes effective.

The NRC estimates that it will take each applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to complete the assessment and to incorporate the results in the application. In addition, each applicant will incur a

\*one-time burden to develop an SGI program to secure the assessment, results, and supporting documents. The NRC estimates that each applicant will spend 120 hours to develop the SGI program. The total burden on the industry to collect this information is estimated to be 11,880 hours of industry resources.

Industry:

Annualized over 3 years

(3,840 + 120) hrs/appl. x 3 appl. = 11,880 hrs	11,880 hrs/3 yrs = 3,960 hrs/yr
11,880 hrs x \$238/hr = \$2,827,440	\$2,827,440/3 yrs =
	\$942,480

**Applications for Renewal of Any of the Four Existing Design Certifications if the Design has Not Previously Been Amended to Comply with the Rule**

The NRC is expecting one application for renewal of one of the four existing design certifications that will be required to comply with 10 CFR 50.150 to be submitted to the NRC during the OMB clearance period.

The NRC estimates that it takes this applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to perform the assessment and to include the results in the application. The applicant will incur no burden to develop an SGI program because it was developed when the applicant submitted the original design certification application to the NRC. The total burden on industry to collect this information is estimated to be 3,840 hours of industry resources.

Industry:

Annualized over 3 years

3,840 hrs/appl. x 1 appl. = 3,840 hrs	3,840 hrs/3 yrs = 1,280 hrs/yr
3,840 hrs x \$238/hr = \$913,920	\$913,920/3 yrs = \$304,640

### **Standard Design Approval Applications**

During the OMB clearance period, the NRC expects that zero applications for new standard design approvals will be submitted to the NRC. If an application was submitted during a future OMB clearance period, the NRC estimates that the annualized reporting burden will be 3,960 hours and calculated as follows.

The NRC estimates that it will take each applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to complete the assessment and to incorporate the results in the application. In addition, each applicant will incur a \*one-time burden to develop an SGI program to secure the assessment, results, and supporting documents. The NRC estimates that each applicant will spend 120 hours to develop the SGI program. The total burden on the applicant to collect this information is estimated to be 3,960 hours, over 1 year.

### **Combined License Applications Referencing a New Standard Design Certification, New Standard Design Approval, or Manufactured Reactor**

Under the final rule, any combined license applicant referencing a new standard design certification, new standard design approval, or manufactured reactor which complies with 10 CFR 50.150 will not have to perform an aircraft impact assessment. The application will need only to incorporate by reference the assessment done for the standard design certification, standard design approval, or manufactured reactor, as is appropriate. Thus, the relevant reporting burden for this category of application is zero.

### **Combined License Applications Not Referencing a Standard Design Certification, Standard Design Approval, or Manufactured Reactor**

During the OMB clearance period, the NRC expects that zero applications for combined licenses not referencing a standard design certification, standard design approval, or manufactured reactor will be submitted to NRC. If an application was submitted during a future OMB clearance period, the NRC estimates that the annualized reporting burden will be 3,960 hours and calculated as follows.

The NRC estimates that it will take each applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to complete the assessment and to incorporate the results in the application. In addition, each applicant will incur a \*one-time burden to develop an SGI program to secure the assessment, results, and supporting documents. The NRC estimates that each applicant will spend 120 hours to develop the SGI program. The total burden on the applicant to collect this information is estimated to be 3,960 hours, over 1 year.

**Combined License Applications Referencing a Standard Design Certification Issued Before the Effective Date of the Rule Which has Not Been Amended to Comply with the Rule.**

The NRC has received one combined license application referencing a currently approved standard design certification (which has not been amended to comply with the rule) and the rule will be effective before the NRC makes a decision on the combined license application. Therefore, the combined license applicant will be required to amend their application to comply with the requirements of the aircraft impact rule if the referenced design certification is not amended to comply with the rule during the pendency of the combined license application. The NRC expects that this will be the only application in this category to be submitted to the NRC during the OMB clearance period.

The NRC estimates that it takes this applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to perform the assessment and to include the results in the application. The applicant will also incur a \*one-time burden to develop an SGI program to secure the assessment, results, and supporting documents. The NRC estimates that the applicant spends 120 hours to develop the SGI program. The total burden on industry to collect this information is estimated to be 3,960 hours of industry resources.

Industry:

Annualized over 3 years

(3,840+120) hrs/appl. x 1 appl. = 3,960 hrs	3,960 hrs/3 yrs = 1,320 hrs/yr
3,960 hrs x \$238/hr = \$942,480	\$942,480/3 yrs =
	\$314,160

**Manufacturing License Applications Referencing a New Standard Design Certification or New Standard Design Approval**

Under the final rule, any manufacturing license applicant referencing a new standard design certification or new standard design approval which complies with 10 CFR 50.150 will not have to perform an aircraft impact assessment. The application will need only to incorporate by reference the assessment done for the standard design certification or standard design approval, as is appropriate. Thus, the relevant reporting burden for this category of application is zero.

### **Manufacturing License Applications Not Referencing a Standard Design Certification or Standard Design Approval**

During the OMB clearance period, the NRC expects that zero applications for manufacturing licenses not referencing a standard design certification or standard design approval will be submitted to the NRC. If an application was submitted during a future OMB clearance period, the NRC estimates that the annualized reporting burden will be 3,960 hours and calculated as follows.

The NRC estimates that it will take each applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to complete the assessment and to incorporate the results in the application. In addition, each applicant will incur a \*one-time burden to develop an SGI program to secure the assessment, results, and supporting documents. The NRC estimates that each applicant will spend 120 hours to develop the SGI program. The total burden on the applicant to collect this information is estimated to be 3,960 hours, over 1 year.

### **Manufacturing License Applications Referencing a Standard Design Certification Issued Before the Effective Date of the Rule Which has Not Been Amended to Comply with the Rule**

During the OMB clearance period, the NRC expects that zero applications for manufacturing licenses that reference a standard design certification issued before the effective date of the rule which has not been amended to comply with the rule will be submitted to the NRC. If an application was submitted during a future OMB clearance period, the NRC estimates that the annualized reporting burden will be 3,960 hours and calculated as follows.

The NRC estimates that it will take each applicant 3,840 hours (24 staff-months x 4 weeks/month x 40 hours), over 1 year to complete the assessment and to incorporate the results in the application. In addition, each applicant will incur a \*one-time burden to develop an SGI program to secure the assessment, results, and supporting documents. The NRC estimates that each applicant will spend 120 hours to develop the SGI program. The total burden on the applicant to collect this information is estimated to be 3,960 hours, over 1 year.

### **Total Burden and Burden Hour Cost for All Applications**

The costs associated with the information collections are given in Table 1 for the annualized \*one-time reporting burden. The estimated \*one-time cost for all affected applicants over the 3-year period covered by this analysis is \$4,683,840 (\$0 [construction permit applicants] + \$0 [operating license applicants] + \$2,827,440 [standard design certification applicants] + \$913,920 [design certification renewal applicants] + \$0 [standard design approval applicants] + \$942,480 [combined license applicants] + \$0 [manufacturing license applicants]).

The annualized burden hour cost for this information collection is 6,560 hours (0 hours [construction permit applicants] + 0 hours [operating license applicants] + 3,960 hours [standard design certification applicants] + 1,280 hours [design certification renewal applicants] + 0 hours [standard design approval applicants] + 1,320 hours [combined license applicants] + 0 hours [manufacturing license applicants]).

The total burden hour cost over the 3-year period covered by this analysis is 19,680 hours (0 hours [construction permit applicants] + 0 hours [operating license applicants] + 11,880 hours [standard design certification applicants] + 3,840 hours [design certification renewal applicants] + 0 hours [standard design approval applicants] + 3,960 hours [combined license applicants] + 0 hours [manufacturing license applicants]).

\* (comments regarding the one-time burden calculations) The numbers for the one-time reporting burden to perform the aircraft impact assessment and report the results in an application were derived primarily from the NRC staff's own experience in performing these assessments for operating reactors and for new reactor designs. As a result of the events of September 11, 2001, the NRC undertook a series of actions to provide continued reasonable assurance of adequate protection to public health and safety and common defense and security at the U.S. commercial nuclear power facilities. As part of this comprehensive review of security for NRC-licensed facilities, the NRC conducted detailed, site-specific engineering studies of a limited number of nuclear power plants to assess potential vulnerabilities of deliberate attacks involving large, commercial aircraft. In addition, the NRC has conducted similar assessments for the new nuclear power reactor designs that are being referenced in current license applications. Internal NRC information on the resources required to conduct these assessments was the primary basis for estimating the burden to the industry to perform similar assessments and submit the results to the NRC.

\*\* The expectations regarding filings over the 3-yr. Time horizon were based on both formal and informal communications with industry representatives. The NRC staff first considered all of the "letters of intent" it had received from the industry. These letters are sent by companies to notify the NRC of their intent to submit an application for a license, certifications, or regulatory approval for a new nuclear power reactor. The NRC staff also considered less formal conversations with industry representatives that took place at public meetings or during phone calls. For those categories where the NRC staff has indicated that no filings are expected over the next three years, the NRC has neither received a letter of intent from any industry representative regarding a filing in that category nor has it received a less formal notification of an intent to file an applications in that category over the next three years.

13. Estimate of Other Additional Cost

The NRC has determined that the quantity of records to be maintained is roughly proportional to the recordkeeping burden and, therefore, can be used to calculate approximate records storage costs. Based on the number of pages maintained for a typical clearance, the records storage cost has been determined to be equal to 0.0004 times the recordkeeping burden cost. Because the recordkeeping burden is estimated to be 3 hours, the storage cost for this clearance is negligible [ $\$1.00$  (3 hours x 0.0004 x  $\$238/\text{hour}$ )].

The NRC estimates that there is a \*one-time cost of  $\$1,200$  to purchase an appropriate SGI container and lock. The annualized cost over 3 years is  $\$400$  ( $\$1,200/3$  years). [Note: In the analysis done for the proposed rule, a value of  $\$2,500$  was used as the cost to purchase an appropriate SGI container and lock. For the final analysis, the NRC reassessed this cost.]

The overall additional cost would be  $\$401$  annually.

#### 14. Estimated Annualized Cost to the Federal Government

This section calculates the estimated annualized one-time cost to the government over the 3-year OMB clearance period covered by this analysis. In the analysis done for the proposed rule, a value of 480 hours per application (1 staff-month x 4 weeks/month x 40 hours/week) was used for the NRC to review the results of the aircraft impact assessment and inspect the assessment. For the final rule, the NRC reassessed the staff-hours needed to conduct these activities. This analysis uses a value of 1,248 hours per application (7.8 staff-months x 4 weeks/month x 40 hours/week) over 1 year. Therefore, the estimated cost to the government is 1,248 hours per application.

##### **Construction Permit Applications**

Although the final requirements provide for collection of information from applicants for a construction permit, the NRC does not expect to collect information from these entities during this 3-year OMB clearance period.

##### **Operating License Applications**

Although the final requirements provide for collection of information from applicants for an operating license, the NRC does not expect to collect information from these entities during this 3-year OMB clearance period.

**Standard Design Certification Applications**

The NRC expects to collect information from three applicants for a standard design certification during this 3-year OMB clearance period. The estimated one-time cost to the government to review the results of the aircraft impact assessment and inspect the assessment is \$891,072 (3,744 hours, i.e., 1,248 hours x 3 applications x \$238/hour). Averaging this over the 3-year period covered by the analysis, this burden amounts to \$297,024/year (1,248 hours/year).

**Applications for Renewal of Any of the Four Existing Design Certifications if the Design has Not Previously Been Amended to Comply with the Rule**

The NRC expects to collect information from one applicant for renewal of one of the four existing design certifications during this 3-year OMB clearance period. The estimated one-time cost to the government to review the results of the aircraft impact assessment and inspect the assessment is \$297,024 (1,248 hours x 1 application x \$238/hour). Averaging this over the 3-year period covered by the analysis, this burden amounts to \$99,008/year (416 hours/year).

**Standard Design Approval Applications**

Although the final requirements provide for collection of information from applicants for a standard design approval, the NRC does not expect to collect information from these entities during this 3-year OMB clearance period.

**Combined License Applications Referencing a New Standard Design Certification, New Standard Design Approval, or Manufactured Reactor**

Under the final rule, any combined license applicant referencing a new standard design certification, new standard design approval, or manufactured reactor which complies with 10 CFR 50.150 will not have to perform an aircraft impact assessment. The application will need only to incorporate by reference the assessment done for the standard design certification, standard design approval, or manufactured reactor, as is appropriate. For this category of application, there is zero cost to the NRC to review the results of the aircraft impact assessment. Thus, the annualized cost to the Federal government is zero.

**Combined License Applications Not Referencing a Standard Design Certification, Standard Design Approval, or Manufactured Reactor**

Although the final requirements provide for collection of information from applicants for a combined license not referencing a standard design certification, standard design approval, or manufactured reactor, the NRC does not expect to collect information from these entities during this 3-year OMB clearance period.

**Combined License Applications Referencing a Currently Approved Standard Design Certification Issued Before the Effective Date of the Rule Which has Not Been Amended to Comply with the Rule**

The NRC has received one application for a combined license application referencing a currently approved standard design certification which has not been amended to comply with the rule. The NRC expects that this will be the only application in this category to be submitted to the NRC during this 3-year OMB clearance period. Thus, the NRC will collect information from one applicant. The estimated one-time cost to the government to review the results of the aircraft impact assessment and inspect the assessment is \$297,024 (1,248 hours x 1 application x \$238/hour). Averaging this over the 3-year period covered by the analysis, this burden amounts to \$99,008/year (416 hours/year).

**Manufacturing License Applications Referencing a New Standard Design Certification or New Standard Design Approval**

Under the final rule, any manufacturing license applicant referencing a new standard design certification or new standard design approval which complies with 10 CFR 50.150 will not have to perform an aircraft impact assessment. The application will need only to incorporate by reference the assessment done for the standard design certification or standard design approval, as is appropriate. For this category of application, there is zero cost to the NRC to review the results of the aircraft impact assessment and inspect the assessment. Thus, the annualized cost to the Federal government is zero.

**Manufacturing License Applications Not Referencing a Standard Design Certification or Standard Design Approval**

Although the final requirements provide for collection of information from applicants for a manufacturing license not referencing a standard design certification or standard design approval, the NRC does not expect to collect information from these entities during this 3-year OMB clearance period.

**Manufacturing License Applications Referencing a Standard Design Certification Issued Before the Effective Date of the Which has Not Been Amended to Comply with the Rule**

Although the final requirements provide for collection of information from applicants for a manufacturing license referencing a currently approved standard design certification which has not been amended to comply with the rule, the NRC does not expect to collect information from these entities during this 3-year OMB clearance period.

### **Total Annualized Cost**

The estimated one-time cost to the government to review the results of the aircraft impact assessment and inspect the assessment is

The one-time cost to the government to review the outcome of the aircraft impact assessments and inspect the assessments result in a total annualized cost of \$495,040 (2,080 hours x \$238/hour). These costs are fully recovered by fee assessments to NRC applicants pursuant to 10 CFR Parts 170 and/or 171.

15. Reasons for Change in Burden or Cost

All of the burden for this information collection will be new burden which will be added to 10 CFR Part 50 and the total is 19,680 hours over a 3-year period (6,560 hours annually). This final rule will increase the annual burden for 10 CFR Part 50 from 5,211,667 hours to 5,218,227 hours by requiring applicants for new nuclear power reactors to perform a design-specific assessment of the effects of the impact of a large, commercial aircraft. The applicant is required to use realistic analyses to identify and incorporate design features and functional capabilities to show, with reduced use of operator actions, that either the reactor core remains cooled or the containment remains intact, and either spent fuel cooling or spent fuel pool integrity is maintained.

\*\* The expectations regarding filings over the 3-yr. Time horizon were based on both formal and informal communications with industry representatives. The NRC staff first considered all of the "letters of intent" it had received from the industry. These letters are sent by companies to notify the NRC of their intent to submit an application for a license, certifications, or regulatory approval for a new nuclear power reactor. The NRC staff also considered less formal conversations with industry representatives that took place at public meetings or during phone calls. For those categories where the NRC staff has indicated that no filings are expected over the next three years, the NRC has neither received a letter of intent from any industry representative regarding a filing in that category nor has it received a less formal notification of an intent to file an applications in that category over the next three years.

Under this information collection, no burden will be transferred from 10 CFR Part 52 to 10 CFR Part 50, and there will be no burden reductions for 10 CFR Part 52.

16. Publication for Statistical Use

The collected information is not published for statistical use.

17. Reason for Not Displaying the Expiration Date

The requirement will be 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

None.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable. Statistical methods are not used in this collection of information.

**TABLE 1. ANNUAL REPORTING BURDEN FOR 10 CFR PART 50**

Section	Number of Respondents Annually	Responses per Respondent Annually	Total Responses Annually	Burden Hours per Response	Total Annual Burden Hours	Estimated Annual Cost @ \$238/Hour
<b>Construction Permit Applications</b> NRC expects zero applications in the next 3 years.						
50.150(b)	0	0	0	3,960	0	0
<b>Operating License Applications</b> NRC expects zero applications in the next 3 years.						
50.150(b)	0	0	0	3,960	0	0
<b>Standard Design Certification Applications</b> NRC expects 3 applications in the next 3 years (3/3 = 1 response/year).						
50.150(b)	1	1	1	3,960	3,960	\$942,480
<b>Applications for Renewal of Any of the Four Existing Design Certifications if the Design has Not Been Amended to Comply with the Rule</b> NRC has received 1 application; i.e., 1 application in the next 3 years (1/3 = 0.333 response/year).						
50.150(b)	0.333	1	0.333	3,840	1,280	\$304,640
<b>Standard Design Approval Applications</b> NRC expects zero applications in the next 3 years.						
50.150(b)	0	0	0	3,960	0	0

**TABLE 1. ANNUAL REPORTING BURDEN FOR 10 CFR PART 50 (continued)**

Section	Number of Respondents Annually	Responses per Respondent Annually	Total Responses Annually	Burden Hours per Response	Total Annual Burden Hours	Estimated Annual Cost @ \$238/Hour
<b>Combined License Applications Referencing a New Standard Design Certification, New Standard Design Approval, or Manufactured Reactor</b> The relevant reporting burden for this category of application is zero.						
50.150(b)	NA	NA	NA	NA	NA	NA
<b>Combined License Applications Not Referencing a Standard Design Certification, Standard Design Approval, or Manufactured Reactor</b> NRC expects zero applications in the next 3 years.						
50.150(b)	0	0	0	3,960	0	0
<b>Combined License Applications Referencing a Standard Design Certification Issued Before the Effective Date of the Rule which has Not Been Amended to Comply with the Rule</b> NRC expects 1 applications in the next 3 years (1/3 = 0.333 response/year).						
50.150(b)	0.333	1	0.333	3,960	1,320	\$314,160
<b>Manufacturing License Applications Referencing a New Standard Design Certification or New Standard Design Approval</b> The relevant reporting burden for this category of application is zero.						
50.150(b)	NA	NA	NA	NA	NA	NA
<b>Manufacturing License Applications Not Referencing a Standard Design Certification or Standard Design Approval</b> NRC expects zero applications in the next 3 years.						
50.150(b)	0	0	0	3,960	0	0

**TABLE 1. ANNUAL REPORTING BURDEN FOR 10 CFR PART 50 (continued)**

Section	Number of Respondents Annually	Responses per Respondent Annually	Total Responses Annually	Burden Hours per Response	Total Annual Burden Hours	Estimated Annual Cost @ \$238/Hour
<b>Manufacturing License Applications Referencing a Standard Design Certification Issued Before the Effective Date of the Rule Which has Not Been Amended to Comply with the Rule</b> NRC expects zero applications in the next 3 years.						
50.150(b)	0	0	0	3,960	0	0
<b>Total § 50.150(b) Reporting Burden</b>					6,560	\$1,561,280



**TABLE 2. ANNUAL REPORTING BURDEN FOR 10 CFR PART 52**

<b>Section</b>	<b>Number of Respondents Annually</b>	<b>Responses per Respondent Annually</b>	<b>Total Responses Annually</b>	<b>Burden Hours per Response</b>	<b>Total Annual Burden Hours</b>	<b>Estimated Annual Cost @ \$238/Hour</b>
<b>52.47(a)(28)</b> - Burden covered under § 50.150, approved by OMB under Clearance No. 3150-0011						
<b>52.59(a)</b> - Burden covered under § 50.150, approved by OMB under Clearance No. 3150-0011						
<b>52.79(a)(47)</b> - Burden covered under § 50.150, approved by OMB under Clearance No. 3150-0011						
<b>52.137(a)(26)</b> - Burden covered under § 50.150, approved by OMB under Clearance No. 3150-0011						
<b>52.157(f)(32)</b> - Burden covered under § 50.150, approved by OMB under Clearance No. 3150-0011						