

SUPPORTING STATEMENT¹ FOR INFORMATION COLLECTIONS CONTAINED IN
10 CFR PART 53
RISK INFORMED, TECHNOLOGY-INCLUSIVE REGULATORY FRAMEWORK FOR
ADVANCED REACTORS
FINAL RULE

3150-0274

NEW

DESCRIPTION OF INFORMATION COLLECTION

The U.S. Nuclear Regulatory Commission (NRC) is establishing an optional technology-inclusive regulatory framework for use by applicants for new commercial nuclear plant designs. The regulatory requirements developed in this rulemaking use methods of evaluation, including risk-informed and performance-based methods, that are flexible and practicable for application to a variety of new reactor technologies. The NRC's goals in amending these regulations are to continue to provide reasonable assurance of adequate protection of public health and safety and the common defense and security at reactor sites at which new nuclear reactor designs are deployed to at least the same degree of protection as required for current-generation light-water reactors; protect health and minimize danger to life or property to at least the same degree of protection as required for current-generation light-water reactors; provide greater operational flexibilities where supported by enhanced margins of safety that may be provided in new nuclear designs; and promote regulatory stability, predictability, and clarity.

The final rule covers a wide range of topics, including the following that result in recordkeeping and reporting requirements:

- Fitness for duty,
- Physical security,
- Cybersecurity,
- Access authorization.
- Plant design and analysis,
- Siting,
- Construction and manufacturing,
- Facility operations,
- Programs,
- Staffing,
- Decommissioning,
- Applications,
- Licensing basis information.
- Quality assurance

This supporting statement describes how the final rule establishes information collections in 10 CFR Part 53 (3150-0274).

Affected Entities

For the purposes of this supporting statement, the NRC staff estimates that there would be eight Part 53 applicants during the 3-year period covered by this clearance (2027-2029). During this period, the NRC staff assumes that of these eight applicants, five would prepare and submit application materials for a construction permit (CP), two would prepare and submit application materials for a combined license (COL), and one would prepare and submit application materials for a standard design approval (SDA). Additionally, four of the CP applicants would later prepare and submit application materials for an operating license (OL), and one of the COL applicants would first prepare and submit application materials for an early site permit (ESP).

The information collection requirements under 10 CFR Part 53 are triggered when Part 53 licensees or applicants undertake certain actions to obtain or fulfill the terms and conditions of a CP, ESP, limited work authorization (LWA), standard design approval, standard design certification, OL, COL, or manufacturing license (ML). Part 53 contains several reporting requirements for applicants. It also requires licensees to submit plans, reports, schedules, records, and the results of certain evaluations to the NRC. Part 53 licensees and applicants also have several recordkeeping obligations, particularly in connection with requirements to develop, implement, and maintain certain programs, policies, plans, and procedures in accordance with the final rule. Finally, Part 53 triggers third-party disclosure obligations through requirements to provide notice to third-party entities, such as the State in which a facility is located, and to develop formal arrangements with local emergency responders.

Information Collections

This supporting statement covers recordkeeping, reporting, and third-party disclosure requirements that apply to the following types of information collections:

- *Application information.* Part 53 applicants are required to submit application information in accordance with the requirements of Subpart H.
- *Notifications.* Part 53 licensees are required to provide the NRC with periodic updates of changes in analyses and reports and modifications to programs, plans, policies, procedures, and schedules. Part 53 licensees are also required to notify the NRC of certain emergency events.
- *Written programs, plans, policies, and procedures.* Part 53 applicants and licensees are required to develop and document certain programs, plans, policies, and procedures in accordance with the requirements of the final rule. Applicants and licensees are also required to retain records in connection with the implementation and maintenance of the required programs.
- *Analyses and reports.* Part 53 applicants and licensees are required to conduct certain evaluations, analyses, and assessments and to document and/or report the results in accordance with the requirements of the final rule.

A more detailed description of each provision is provided at the end of this supporting statement in "Description of Information Collection Requirements."

A. JUSTIFICATION

1. Need for the Collection of Information

The information collection requirements contained in Part 53 are necessary for the NRC to evaluate applications for, issue, and regulate operations under Part 53 licenses. Moreover, these requirements enable the NRC to exercise its oversight functions in an effective and efficient manner to ensure protection of public health and safety, the promotion of the common defense and security, and the protection of the environment. The NRC uses the information collected to make decisions regarding applications and license amendments, assess licensee compliance with Part 53, and take corrective actions as needed.

2. Agency Use and Practical Utility of Information

On January 14, 2019, the President signed the Nuclear Energy Innovation and Modernization Act (NEIMA) into law (Pub. L. 115 439). NEIMA section 103(a)(4) directs the NRC to “complete a rulemaking to establish a technology inclusive, regulatory framework for optional use by commercial advanced nuclear reactor applicants for new reactor license applications.” NEIMA defines a “technology inclusive, regulatory framework” as one that is “developed using methods of evaluation that are flexible and practicable for application to a variety of reactor technologies, including, where appropriate, the use of risk-informed and performance-based techniques.” This rulemaking responds to NEIMA and amends 10 CFR by creating an alternative regulatory framework for licensing future commercial nuclear plants.

Applicants or licensees requesting approval to construct or operate commercial nuclear plants are required by the Atomic Energy Act of 1954, as amended (the Act), to provide information and data that the NRC may determine necessary to ensure the health and safety of the public.

The NRC uses the records and reports required in this part to ascertain that licensing the design, construction, operation, and decommissioning of commercial nuclear plants is adequate to protect public health, promote the common defense and security, and protect the environment. The reports and recordkeeping requirements allow NRC to determine whether to take actions, such as to conduct inspections or to alert other licensees to prevent similar events that may have generic implications.

3. Reduction of Burden Through Information Technology

The NRC has issued [Guidance for Electronic Submissions to the NRC](#), which provides direction for the electronic transmission and submittal of documents to the NRC. Electronic transmission and submittal of documents can be accomplished via the following avenues: the Electronic Information Exchange (EIE) process, which is available from the NRC’s “Electronic Submittals” Web page, by Optical Storage Media (OSM) (e.g. CD-ROM, DVD), by facsimile or by e-mail.

It is estimated that approximately 90% of the responses will be filed electronically.

4. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. There is no duplication of requirements.

5. Effort to Reduce Small Business Burden

Not applicable.

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

If the information is not collected, the NRC will not be able to assess whether Part 53 licensees are operating within the specific safety requirements applicable to the licensing and operating activities for commercial nuclear plants.

The information and required frequency from licensees is essential to the NRC's determination of whether the applicant has adequate equipment, training, funds and experience throughout the life of the licensee to protect the public health and safety.

7. Circumstances which Justify Variations from OMB Guidelines

Sections of 10 CFR Part 53 depart from the Office of Management and Budget (OMB) guidelines described in 5 CFR 1320.5(d)(2)(iv) by requiring that licensees to retain records for more than 3 years. Some sections require licensees to maintain records for 5 years, and several sections require records to be retained or made available for audit until the date of license termination.

- 10 CFR 53.605(i) requires procurement records to be retained for the lifetime of the facility, and records of evaluations of all deviations and failures to comply need to be retained for 5 to 10 years in accordance with the stated requirements. Records of interim reports and notifications also need to be retained for up to 10 years. Suppliers of basic components are required to retain all notifications sent to affected licensees or purchasers for at least ten years following the date of the notification, and records of the facilities or other purchasers to whom the basic components and associated services were supplied need to be retained for at least fifteen years from the date of delivery.
- 10 CFR 53.700 requires OL and COL licensees under Part 53 to develop, implement, and maintain controls for plant SSCs, responsibilities of personnel, and plant programs during the operating life of the commercial nuclear plant.
- 10 CFR 53.780 requires licensees under Part 53 to maintain records documenting the participation of each operator or senior operator trainee in the initial operator licensing training program, initial exam, and operator licensing requalification program during the period in which the trainees remain licensed as operators or senior operators at that facility, which may exceed a period of three years.
- 10 CFR 53.815 requires each licensee of a self-reliant mitigation facility under Part 53 to retain records documenting the participation of each generally licensed operator in the training and examination programs for the

duration that the generally licensed reactor operator remains employed at that facility. It also requires licensees that maintain a simulation facility to conduct performance testing throughout the life of the simulation facility and retain the results of performance testing for four years after the completion of each performance test or until superseded by updated test results.

- 10 CFR 53.860 requires each holder of an OL or COL under Part 53 to maintain a site-specific analysis as part of their physical protection program until permanent cessation of operations and permanent fuel removal.
- 10 CFR 53.880 requires each holder of an OL or COL under Part 53 to document inservice inspection and inservice testing results and corrective actions and retain this documentation for the life of the plant.
- 10 CFR 53.1060 requires each licensee under Part 53 to keep records of information important to the safe and effective decommissioning of the facility in an identified location until the license is terminated by the Commission.
- 10 CFR 53.1530(b) requires the holder of an ML to maintain records of changes in the facility or procedures made under 10 CFR 53.1530(a). It also requires the holder of an ML to maintain records of changes in the facility until expiration of the ML or the expiration of a renewed license issued under 10 CFR 53.1295—whichever is later. Records of changes in procedures must be maintained for five years.
- 10 CFR 53.1545 requires each holder of an OL or COL for which the Commission has made the finding under 10 CFR 53.1452(g) to retain the updated Final Safety Analysis Report until the Commission terminates its license.
- 10 CFR 53.1550 requires a licensee under Part 53 to maintain records of all departures from the certified design of the facility and make them available for audit until the termination of the license. It also requires licensees to maintain records of changes in the facility until termination of an OL or COL under Part 53, or the termination of a renewed license under 10 CFR 53.1595—whichever is later. Records of changes in procedures are required to be maintained for five years.
- 10 CFR 53.1560 requires holders of an OL or COL under Part 53 to update the program documents submitted as part of an application to obtain or maintain the license and retain these documents until the Commission terminates their license.
- 10 CFR 53.1565 requires licensees under Part 53 to retain the emergency plan and records of each change for which NRC approval was obtained until the Commission terminates the license.
- 10 CFR 53.1620 requires records to be retained until the Commission terminates the facility license or permit if the retention period is not specified by the appropriate regulation in Part 53, license condition, or technical specification.

Other sections of 10 CFR Part 53 vary from OMB guidelines described in 5 CFR 1320.5(d)(2)(i)-(ii) by requiring licensees to submit reports to the NRC more often than quarterly and in some cases in less than 30 days.

- 10 CFR 53.070 requires applicants and licensees to notify the Administrator of the appropriate Regional Office within two working days of identifying

information for a regulated activity that has a significant implication for public health and safety or common defense and security.

- 10 CFR 53.605(e)(1) requires CP, COL, and ML licensees under Part 53 to notify the NRC Operations Center within 2 days following the receipt of information by the director or responsible officer for the CP, COL or ML upon identification of a defect or failure to comply.
- 10 CFR 53.785 requires licensees under Part 53 to notify the Commission within 30 days of a conviction for a felony.
- 10 CFR 53.1449 requires licensees under Part 53 when within one year of the scheduled date for initial loading of fuel or initiating the removal of the features to prevent criticality required under 10 CFR 53.620(d)(1) for a fueled manufactured reactor, to submit updates to the ITAAC schedules every 30 days until the final notification is provided to the NRC.
- 10 CFR 53.1452 requires licensees under Part 53 to notify the NRC of the scheduled date for initial loading of fuel no later than 270 days before the scheduled date and notify the NRC of updates to its schedule every 30 days thereafter.
- 10 CFR 53.1630 requires each holder of an OL or a COL under Part 53 after the Commission makes the finding under 10 CFR 53.1452(g) to notify the NRC Headquarters Operations Center via the Emergency Notification System immediately after notification of the appropriate State and local agencies, and within one hour, four hours, or eight hours of the events specified in this section. Follow-up notifications are also required.
- 10 CFR 53.1640 requires OL or COL licensees under Part 53 to submit a Licensee Event Report within sixty days of discovering any event described in this section. The reporting burden for licensees to submit the Licensee Event Report is accounted for in the clearance for NRC Forms 366, 366A, and 366B (OMB Control No. 3150-0104).
- 10 CFR 53.1690 requires a licensee under Part 53 to notify the appropriate NRC Regional Administrator in writing immediately following the filing of a petition for bankruptcy by or against the licensee, an entity controlling the licensee or listing the license or licensee as property of the estate, or an affiliate of the licensee.
- 10 CFR 53.1720 requires a licensee under Part 53, following an accident, to submit a cleanup plan for the Director's approval within 30 days of informing the Director that the plant has reached a safe and stable condition.

These requirements ensure that information related to the safe operation of the facility is readily available to the licensee, as well as to the NRC for inspection and oversight purposes. These variations from the OMB guidelines are therefore necessary to protect public health and safety and maintain the common defense and security.

8. Consultations Outside the NRC

The NRC published a proposed rule in the *Federal Register* for public comment on October 31, 2024 (89 FR 86918) as well as a draft OMB Supporting Statement for Part 53.

On November 19, 20, and 21, 2024, the NRC held a multi-day public meeting on the proposed rule. During this meeting, the NRC staff provided an overview of the

proposed rule, addressed stakeholder questions, and communicated the methods available to submit public comments. The staff held a second public meeting on the proposed rule in early January 2025 with a focus on the topic of testing fueled manufactured reactors in the manufacturing facility and other technical topics of interest raised by stakeholders. In addition, the NRC staff hosted 24 public meetings with external stakeholders and participated in 16 Advisory Committee on Reactor Safeguards meetings on the draft proposed rule development before the rule was published for public comment.

The NRC prepared a summary and analysis of public comments received on the proposed rule and draft RGs, which totals two volumes ([ML26042A229](#), [ML26042A228](#)). The public comment submissions are available from the Federal e-Rulemaking website at <https://www.regulations.gov> under Docket ID NRC-2019-0062.

As a result of the response to public comments, the NRC revised the proposed rule language related to financial requirements in Subparts H and J to allow for a reduced level of financial qualifications review, as described in SECY-18-0026, "Proposed Rule: Financial Qualifications Requirements for Reactor Licensing," as this would not compromise public health and safety and would allow the NRC to readily identify any degradation in licensee performance during construction and operation. As a result, the information collection requirement 10 CFR 53.1680 related to submission of annual financial reports contained in the supporting statement was not included in the supporting statement for the final rule.

Additionally, as a result of public comments, the NRC revised 10 CFR 53.1530(a) to establish requirements for revising information within an FSAR associated with an ML without obtaining a license amendment. This change allows the holder of an ML to make changes to a manufactured reactor design using the evaluation criteria in 10 CFR 53.1550. As a result, the NRC established a new recordkeeping requirement under 10 CFR 53.1530(b) requiring licensees to maintain records of any changes made under 10 CFR 53.1530(a).

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b).

Trade secrets, privileged, or confidential commercial or financial information is marked as proprietary information and is protected in accordance with NRC regulations in 10 CFR 9.17(a) and 10 CFR 2.390(b).

Certain information, designated as SGI, is prohibited from public disclosure in accordance with the provisions of the Atomic Energy Act of 1954, as amended, pursuant to Chapter 12, Section 147, or is designated as classified National Security Information, in accordance with Executive Order 12958, "Classified National Security Information," dated April 17, 1995.

11. Justification for Sensitive Questions

No sensitive information is requested.

12. Estimated Burden and Burden Hour Cost

Detailed burden estimates are included in the supplemental burden Excel spreadsheet titled, "Part 53 Burden Tables for the Risk Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors Final Rule."

The NRC staff estimates that there would be eight applicants during the 3-year period covered by this clearance (2027-2029). Of these applicants, five (1.67 annually) would prepare and submit application materials for a construction permit (CP), two (0.67 annually) would prepare and submit application materials for a combined license (COL), and one (0.33 annually) would prepare and submit application materials for a standard design approval (SDA). Additionally, four (1.33 annually) of the CP applicants would later prepare and submit application materials for an operating license (OL), and one of the COL applicants would first prepare and submit application materials for an early site permit (ESP).

The overall estimated annual burden is 375,024.2 hours at an estimated annual cost of \$57,753,727 (375,024.2 hours x \$154/hour). This includes 318,613.9 hours for reporting, a burden of 56,373.6 hours for recordkeeping, and 36.7 hours for third-party disclosures.

Title	Total Burden Summary		Cost
	Responses	Hours	
Reporting	40.0	318,613.9	\$49,066,541
Recordkeeping	8.0	56,373.6	\$8,681,534
Third-Party Disclosures	118.2	36.7	\$5,652
TOTAL	166.2	375,024.2	\$57,753,727

The NRC's average labor rate of \$154 per hour for FY 2026 was used to calculate burden costs to the public because it aligns with 2024 Bureau of Labor Statistics data showing comparable hourly mean wages across five key occupational groups (executives, management, technical staff, licensing staff, and physicists) within the nuclear industry.

13. Estimate of Other Additional Costs

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 \$0.12 per recordkeeping burden hour. Therefore, the storage cost for this clearance is estimated to be \$6,765 (56,373.6 recordkeeping hours x \$0.12 per hour).

14. Estimated Annualized Cost to the Federal Government

The annualized cost for the NRC over the 3-year period covered by the analysis, including both one-time costs and annual costs, is estimated to be \$3,574,340 (23,210 hours x \$154/hour).

NRC Action	Rule Text Provision	Annualized NRC Cost No. Actions / Yr	Burden Hrs / Action	Total Hours	Total Cost (\$154 x hrs)
Process Application Materials	53.780(e), 53.1100(a)(1), 53.1100(a)(2), 53.1100(f), 53.1109, 53.1130, 53.1144, 53.1146(a)-(d), 53.1173(a), 53.1206, 53.1209, 53.1210, 53.1236, 53.1239, 53.1241, 53.1254, 53.1276, 53.1279, 53.1282, 53.1295, 53.1306, 53.1309, 53.1312, 53.1366, 53.1369, 53.1372, 53.1402, 53.1413, 53.1416, 53.1419, 53.1458, 53.1470, 53.1570, 53.080, 53.780(f), 53.1188(d), 53.1188(e), 53.1257, 53.1263(b), 53.1288, 53.1330(a), 53.1330(b), 53.1336, 53.1384(a), 53.1384(b), 53.1437(a), 53.1437(b), 53.1437(c), 53.1505(b), 53.1510, 53.1515(a)(5)(vi), 53.1525(a)-(c), 53.1535(a), 53.1535(b), 53.1540, 53.1565(d)(1)(i)-(ii), 53.1565(d)(2)(i)-(ii), 53.1565(d)(3)(ii)-(iii), 53.1565(d)(4)(i)-(ii),	8	1,500	12,000	\$1,848,000
Process Requests for Waivers, Exemptions, License Amendments, or other Changes	53.1010(b)(1)(ii), 53.1010(b)(4), 53.1020, 53.1030, 53.1045(b)(3), 53.1045(b)(4), 53.1045(c), 53.1060(a), 53.1060(b), 53.1060(d), 53.1060(e), 53.1060(g), 53.1060(h), 53.1070(d)(1), 53.1070(a)(1), 53.1070(a)(2), 53.1070(a)(3)(i), 53.1070(i)(1)-(i)(2), 53.1080(a), 53.1080(b), 53.1080(d)	2	400	800	\$123,200
Review Decommissioning Submittals and License Termination Applications	53.1449(a), 53.1449(c)(1), 53.1449(c)(2), 53.1449(c)(3), 53.1449(c)(4), 53.1449(d), 53.720, 53.1348, 53.1452(a), 53.1575(a), (b), & (d),	5	400	2,000	\$308,000
Review ITAAC notifications		20	300	6,000	\$924,000
Review Plant Status		1	300	300	\$46,200

NRC Action	Rule Text Provision	No. Actions / Yr	Burden Hrs / Action	Total Hours	Total Cost (\$154 x hrs)
Notifications Review Reports and Other Notifications	53.1620(e), 53.1720(d)(2), 53.070, 53.605, 53.785(h), 53.805(e), 53.1182, 53.1452, 53.1545(a)-(c), 53.1545(f), 53.1550(c)(2), 53.1560(a)-(b), 53.1580, 53.1630, 53.1680, 53.1690(a), 53.1690(b), 53.1720(c)	3.3	500	1,650	\$254,100
Process Information Related to Part 53 Programs	53.605, 53.780(b)(3)-(4), 53.780(c)(1)(ii), 53.780(c)(2)(ii) (A)-(C) & (D), 53.780(b)(2), 53.780(g), 53.1188(b), 53.1545, 53.1565, 53.1645	2.3	200	460	\$70,840
Total		41.6	3,600	23,210	\$3,574,340

The staff has developed estimates of annualized costs to the Federal Government related to the conduct of this collection of information. These estimates are based on staff experience and subject matter expertise and include the burden needed to review, analyze, and process the collected information and any relevant operational expenses.

15. Reasons for Changes in Burden or Cost

The final rule imposes new information collections and thus does not change an existing OMB approved information collection. The information collected is essential to permit the NRC to evaluate applications and issue licenses under Part 53, as well as effectively exercise its oversight functions and monitor licensee compliance with Part 53 regulations, resulting in an estimated annual burden of 375,024.2 hours.

16. Publication for Statistical Use

The information being collected is not expected to be published for statistical use.

17. Reason for Not Displaying the Expiration Date

The recordkeeping and reporting requirements for this information collection are associated with regulations and are not submitted on instruments such as forms or surveys. For this reason, there are no data instruments on which to display an OMB expiration date. Further, amending the regulatory text of the CFR 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. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.

DESCRIPTION OF INFORMATION COLLECTION REQUIREMENTS CONTAINED IN THE
RISK-INFORMED, TECHNOLOGY-INCLUSIVE REGULATORY FRAMEWORK FOR
ADVANCED REACTORS FINAL RULE
10 CFR PART 53

The regulations under 10 CFR Part 53 provide an alternate framework for licensing commercial nuclear reactors.

Pre-application activities. Applicants for licenses under Part 53 are expected to engage in pre-application activities with the NRC staff. These activities may include the development of topical reports, participation in meetings and audits, the development of white papers, activities related to the environmental review, and readiness assessments.

Section 53.070 provides requirements for the completeness and accuracy of information.

- Section 53.070(b) requires applicants and licensees to notify the Commission of information identified as having for the regulated activity a significant implication for public health and safety or common defense and security.

Section 53.080 provides for licensees to request exemptions from specific regulations in Part 53.

- Section 53.080(a) states that the Commission may grant exemptions either upon application from the interested party or upon its own initiative. Section 53.080(c) states that any person may request an exemption permitting the conduct of construction activities prior to the issuance of a CP.

Section 53.240 provides requirements related to licensing-basis events (LBEs). Licensees must identify and analyze LBEs. The LBEs selected must collectively address appropriate risk-informed combinations of malfunctions of plant structures, systems, and components (SSCs), human errors, facility hazards, and the effects of external hazards. Burden for this requirement is included in the application burden for standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under Section 53.1360, and COLs under Section 53.1410.

Section 53.410 provides requirements related to functional design criteria for design-basis accidents (DBAs).

- Section 53.410(a) requires functional design criteria to be defined for each design feature classified as safety-related (SR) in terms of its role in demonstrating compliance with safety criteria in § 53.210.
- Section 53.410(b) also requires special treatments associated with the design of SR SSCs to consider human actions and programmatic controls identified and implemented to achieve and maintain the reliability and capability of SSCs and to maintain consistency with analyses required by § 53.450(f). Burden for this requirement is included in the application burden for standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under 53.1360, and COLs under Section 53.1410.

Section 53.420 provides requirements related to functional design criteria for licensing basis events other than DBAs.

- Section 53.420(a) requires functional design criteria to be defined for each design feature classified as SR or non-safety-related but safety-significant (NSRSS) in terms of

its role in demonstrating compliance with safety criteria in § 53.220 and the evaluation criteria in § 53.450(e).

- Section 53.420(b) also requires special treatments associated with the design of SR and NSRSS SSCs to consider human actions and programmatic controls identified and implemented to achieve and maintain the reliability and capability of SSCs. Burden for this requirement is included in the application burden for standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under Section 53.1360, and COLs under Section 53.1410.

Section 53.425 provides requirements related to design features and functional design criteria for normal operations.

- Section 53.425(a) requires design features to be provided to support the Radiation Protection Program required in § 53.850.
- Section 53.425(b) requires functional design criteria to be specified for each design feature used to demonstrate compliance with § 53.850.
- Section 53.425(c) requires functional design criteria, including design objectives for dose to the maximally exposed member of the public, to be specified for design features to show that plant design features and corresponding programmatic controls, including monitoring programs, control liquid, gaseous, and solid wastes as required under 10 CFR Part 20. Burden for this requirement is included in the application burden for standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under Section 53.1360, and COLs under Section 53.1410.

Section 53.430 provides requirements related to design features and functional design criteria for protection of plant workers. Section 53.430(a) requires design features to be provided to, when combined with corresponding programmatic controls, satisfy the requirements of § 53.270. Section 53.430(b) requires functional design criteria to be specified for each design feature used to demonstrate compliance with § 53.270. Burden for this requirement is included in the application burden for standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under Section 53.1360, and COLs under Section 53.1410.

Section 53.440 provides design requirements. Section 53.440(a)(1) requires licensees to use analysis, appropriate test programs, prototype testing, operating experience, or a combination thereof to demonstrate that each design feature required by § 53.400 satisfies the specified functional design criteria required by §§ 53.410 and 53.420. Section 53.440(a)(2) requires that the design processes for SR and NSRSS SSCs include administrative procedures for evaluating operating, design, and construction experience and for considering applicable important industry experience in the design of those SSCs. Section 53.440(k) requires design features, related functional design criteria, programmatic controls, or combinations thereof to be specified such that analyses demonstrate a low risk of permanent injury to the public due to the health effects of the chemical hazards of licensed material. Section 53.440(n)(4) requires a functional requirements analysis and function allocation to be used to ensure plant design features address how safety functions and functional safety criteria are satisfied, and how the safety functions will be assigned to appropriate combinations of human action, automation, active safety features, passive safety features, or inherent safety characteristics. Burden for this requirement is included in the application burden for standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under Section 53.1360, and COLs under Section 53.1410.

Section 53.450 provides analysis requirements. This includes the requirement to have a PRA, or other systematic risk evaluations (SREs), or combination thereof; use the PRA, other SREs, or combination thereof in specific ways; maintain and upgrade the PRA, other SREs, or combination thereof; and qualify analytical codes used. Additional requirements specify analyses of design-basis events (DBEs) and analysis of LBEs other than DBAs, as well as other analyses, including for fire protection and effluents. Burden for this requirement is included in the application burden for standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under Section 53.1360, and COLs under Section 53.1410.

Section 53.480 provides requirements for earthquake engineering. Section 53.480(f) requires the analyses under § 53.450 to address seismic hazards and related SSC responses. Section 53.480(g) requires functional design criteria, human actions, and programmatic controls needed to address seismic events to be identified and implemented to achieve and maintain the performance of SSCs and to maintain consistency with analyses required by § 53.450. Burden for this requirement is included in the application burden for standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under Section 53.1360, and COLs under Section 53.1410.

Section 53.500 provides general siting and siting assessment requirements. Section 53.500(a) requires licensees to have assessments supporting the siting of each commercial nuclear plant.

Section 53.540 provides requirements related to siting interfaces. Specifically, the section requires site characteristics to be addressed by the design features, programmatic controls, and supporting analyses used to demonstrate that the safety criteria in §§ 53.210 and 53.220 are satisfied. Site characteristics need to support the development and maintenance of adequate emergency plans and security plans.

Section 53.605 provides requirements for the reporting of defects and noncompliance. Section 53.605(b)(2) allows licensees to post a notice describing the regulations of this section and 10 CFR Part 21 and procedures adopted under them, including the name of the individual to whom reports may be made, and states where they may be examined, if posting of the regulation and procedures themselves is not practical. Section 53.605(c)(1) requires licensees to adopt appropriate procedures for evaluating deviations and failures to comply in order to identify reportable defects of failures to comply that can create substantial safety hazards if uncorrected. Section 53.605(c)(2) requires that, if an evaluation of an identified deviation or failure to comply potentially associated with a substantial safety hazard cannot be completed within 60 days from its discovery, an interim report is prepared and submitted to the Commission. Section 53.605(c)(3) requires a director or responsible officer of a licensee to be informed as soon as practicable, and within 5 working days, of any failures to comply, defects, or breakdown in the QA program related to the construction or manufacture of a facility or activity, or a basic component supplied for such a facility or activity. Sections 53.605(d)(1)-(3) requires licensees to notify the Commission of any failures to comply, defects, or breakdowns in the QA program through a director, responsible officer, or designated person.

Section 53.605(e) provides requirements for the timing of such notification, and where it must be sent. Section 53.605(f) provides requirements for the content of the notification. Section 53.605(i) provides record retention requirements. Procurement documents must be

retained for the lifetime of the facility or basic component. Records of evaluations of all deviations and failures to comply need to be retained for the longest of:

- Ten years from the date of the evaluation;
- Five years from the date that an ESP is referenced in an application for a COL; or
- Five years from the date of delivery of a manufactured reactor.

Records of interim reports and notifications to the Commission under this section need to be retained for the minimum time periods stated above. Additionally, suppliers of basic components need to retain records of (1) all notifications sent to affected licensees or purchases under Section 53.605(d)(4) for at least 10 years from the date of the notification, and (2) the facilities or other purchasers to whom the basic components or associated services were supplied for at least fifteen years from their delivery.

Section 53.610 provides requirements related to construction. Section 53.610(a) requires licensees to develop and implement plans, programs, and procedures to manage and control the construction activities. Section 53.610(b)(1)(i) requires licensees to maintain a special nuclear material (SNM) material control and accounting program, a measurement control program, and other material control procedures, including corresponding record management requirements as required by § 70.32. Licensees are also required to have procedures to receive, possess, use, and store source byproduct and SNM in accordance with Parts 30, 40, and 70, and a plant staff training program associated with the receipt of radioactive material. For construction of a commercial nuclear plant involving multiple reactor units, Section 53.610(b)(1)(ii) requires licensees to have plans and procedures in place to prevent or mitigate potential hazards to the SSCs of operating units from construction activities. Section 53.610(b)(1)(iii) requires licensees to have procedures in place prior to the start of construction that describe how construction will be controlled so as not to impact other features important to the design. Section 53.610(b)(1)(iv) requires LWA holders to develop a plan for redress of activities performed under the LWA should the specified situations arise. Section 53.610(b)(2) establishes requirements for programs and procedures that must be implemented related to onsite fresh fuel, including a requirement for a formal letter of agreement to be in place with the local fire department. Section 53.610(c) requires licensees to have processes in place for inspection and acceptance of SSCs upon completion of construction and for protecting them as other construction activities continue.

Section 53.620 provides requirements related to manufacturing. Section 53.620(a) requires holders of MLs to develop and implement plans, programs, and procedures to manage and control the manufacturing activities within the scope of the ML. Section 53.620(b)(1) requires licensees to establish controls to the portions of each facility involved in the manufacturing processes governed by the ML. Section 53.620(b)(3) requires licensees to have a post-manufacturing inspection and acceptance process. Section 53.620(c) requires licensees to develop plans, procedures, and programs related to the control of radioactive materials. Section 53.620(d)(2)(i)(A) requires holders of a Part 53 ML pursuing factory fuel loading to maintain a physical security plan and establish a physical security program per the requirements of § 73.67 for all MLs, regardless of fuel type, enrichment, and quantity. Burden for meeting the requirements of § 73.67 is accounted for under OMB Clearance No. 3150-0002. An incremental recordkeeping burden associated with unique aspects of physical security and cybersecurity programs specific to Part 53 licensees (in addition to that covered under OMB Clearance No. 3150-0002) is included under this section. Section 53.620(e)(3) requires licensees to have procedures in place governing the preparation of the manufactured reactor or portions thereof for transport and the conduct of the transport.

Section 53.700 establishes operational objectives for OL and COL holders under Part 53. These licensees are required to develop, implement, and maintain controls for plant SSCs, responsibilities of personnel, and plant programs.

Section 53.710 requires licensees to maintain capabilities and availability of SSCs. Section 53.710(a) provides requirements related to technical specifications of OLs and COLs under Part 53. Technical specifications need to be developed, implemented, and maintained that set forth conditions or limitations on plant operations. Technical specifications need to describe requirements in the categories listed in paragraph (a). Section 53.710(b) requires licensees to develop and implement control measures on plant operations, including availability controls, and specify what these control measures must accomplish.

Section 53.715 provides requirements for maintenance, repair, and inspection programs. Section 53.715(a) requires a program to control maintenance activities and monitor the performance or condition of SR and NSRSS SSCs to be developed, implemented, and maintained. Section 53.715(c) requires licensees to evaluate performance and condition monitoring activities and associated goals and preventative maintenance activities at least every 24 months.

Section 53.720 provides requirements for responding to seismic events. Licensees are required to consult with the Commission and propose a plan for the timely, safe shutdown of the plant if vibratory ground motion exceeding that of the operating basis earthquake Ground Motion or significant plant damage due to vibratory ground motion occurs, and SSCs necessary for the safe shutdown of the commercial nuclear plant are not available after the occurrence of this vibratory ground motion. Additionally, prior to resuming operations, the licensee are required to demonstrate to the Commission that those features necessary for continued operation without undue risk to the health and safety of the public or necessary to maintain the licensing basis of the commercial nuclear plant were either not functionally damaged or have been repaired.

Section 53.730 provides requirements related to defining, fulfilling, and maintaining the role of personnel in ensuring safe operations. The section requires that the licensee develop, implement, and maintain personnel measures, including human factors engineering design requirements, human system interface design requirements, concept of operations, functional requirements analysis and function allocation, operating experience, staffing plan, and training, examination, and proficiency programs.

Section 53.765, Section 53.770, Section 53.775, and Section 53.795 contain requirements for the facility licensee to certify the medical fitness of a licensee by completing and signing NRC Form 396. The burden for meeting these requirements is recorded under OMB Clearance No. 3150-0024.

Section 53.775(a), Section 53.775(c)(1) and (2), Section 53.780(f), and Section 53.795 contain requirements for information that applicants for an operator or senior operator license must submit by completing and signing NRC Form 398. The burden for meeting these requirements is recorded under OMB Clearance No. 3150-0090.

Section 53.780 provides requirements for training, examination, requalification, and proficiency programs for operators and senior operators. This section specifies what the programs must include, as well as the records that must be maintained relating to them. The initial examination program and requalification programs also requires licensees to submit prepared examinations to the Commission for approval before they are administered, notify the Commission in advance of examination administration to allow for a representative of the Commission to be present, and

submit examination results. Section 53.780(e) provides requirements for simulation facilities and requires licensees that wish to use a simulation facility for training purposes, for demonstrating compliance with experience requirements, or for the conduct of examinations under § 53.780(b) and (c) to request and receive approval from the Commission prior to use of the simulation facility for these purposes. Section 53.780(f) provides for waiving of initial licensing examination requirements, which the Commission may do if it finds the applicant has demonstrated the ability to safely operate the plant.

Section 53.785 provides conditions of operator and senior operator licenses. Section 53.785(h) requires licensees to notify the Commission within 30 days about a conviction for a felony.

Section 53.805 establishes requirements related to generally licensed reactor operators (GLROs). Section 53.805(a)(2) requires licensees for self-reliant-mitigation facilities that have not yet certified the permanent cessation of operations and permanent removal of fuel from the reactor vessel to develop, implement, and maintain facility technical specifications that provide necessary administrative controls to ensure generally licensed reactor operators are qualified to perform certain tasks. Section 53.805(a)(3) requires those licensees to also develop, implement, and maintain the GLRO training, examination, and proficiency programs required under § 53.815. Section 53.805(a)(5) requires those licensees to annually report to the NRC the identity of all GLROs, including all additions and deletions since the last report.

Section 53.810(g) requires a generally licensed operator to notify the Commission within 30 days of a conviction for a felony.

Section 53.815 establishes recordkeeping requirements for GLRO training, examination, and proficiency programs. These requirements specifies what the programs must include, as well as the records that must be maintained relating to them. Section 53.815(e) provides requirements for simulation facilities and requires facility licensees to retain records of the results of performance testing and make the results of any uncorrected performance test failures that may exist at the time of an inspection available for NRC review.

Section 53.830 establishes requirements for the training and qualification of commercial nuclear plant personnel. Section 53.830(b) requires OL and COL holders to, prior to initial fuel load or initiating the removal of the features to prevent criticality required under § 53.620(d)(1), establish, implement, and maintain a training program in accordance with paragraphs (c) and (d). Records related to the program must be maintained and kept available for NRC inspection.

Section 53.850 requires OL and COL holders to develop, implement, and maintain a radiation protection program, a program for the control of radioactive effluents and keeping doses to the public from radioactive effluents as low as is reasonably achievable and for environmental monitoring, and a process control program.

Section 53.855 requires OL and COL holders to have an emergency response plan.

Section 53.860 requires OL and COL holders to develop, implement, and maintain a physical protection program, fitness-for-duty program, access authorization program, cybersecurity program, and information security system. The burden for developing, implementing, and maintaining the programs in paragraphs (a), (c), (d), and (e) are accounted for under OMB Clearance No. 3150-0002, and the burden for developing the FFD program in paragraph (b) is covered under OMB Clearance No. 3150-0146. Section 53.860(a)(2) requires OL and COL holders to perform an analysis demonstrating compliance with § 73.55 or § 73.100.

Section 53.865 requires OL and COL holders to develop, implement, and maintain a quality assurance program (QAP) in accordance with Appendix B of Part 50. Burden for the QAP is included in the clearance for 10 CFR Part 50 (3150-0011).

Section 53.870 requires OL and COL holders to develop, implement, and maintain an integrity assessment program.

Section 53.875 requires OL and COL holders to develop a fire protection plan and program.

Section 53.880 requires OL and COL holders to develop, implement, and maintain a program for in-service inspection and in-service testing prior to receiving an OL or COL.

Section 53.910 requires OL and COL holders to have a program for developing, implementing, and maintaining an integrated set of procedures, guidelines, and related supporting activities to support normal operations and respond to possible unplanned events.

Section 53.1010 establishes requirements for financial assurance for decommissioning.

Section 53.1010(b) requires OL and COL holders to prepare a plan and decommissioning report that ensures and documents adequate funding for decommissioning the facility. These licensees are required to implement and maintain the plan. Section 53.1010(b)(1)(i) requires applicants for OLs to, prior to the Commission issuing the OL, update the decommissioning report to certify that they have provided financial assurance for decommissioning in the amount proposed in the application and approved by the NRC under § 53.1020. Section 53.1010(b)(1)(ii) requires COL holders to, no later than 30 days after the Commission issues the notice of intended operation under § 53.1452, update the decommissioning report to certify that they have provided financial assurance for decommissioning in the amount proposed in the application and approved by the NRC under § 53.1020. Section 53.1010(b)(4) requires that applicants for an OL submit a copy of the financial instrument obtained to satisfy the requirements of § 53.1040 as part of their application to the NRC. Applicants for and holders of a COL are not required to submit a copy of the financial instrument obtained to satisfy the requirements of § 53.1040, except as provided in § 53.1060(b).

Section 53.1020 requires decommissioning cost estimates (DCEs) to be submitted to the Commission.

Section 53.1030 requires OL and COL licensees under Part 53 to annually adjust the cost estimate for decommissioning.

Section 53.1045 describes limitations on the use of decommissioning trust funds. For any licensees that are not "electric utilities" as defined in § 53.020 that use prepayment or an external sinking fund to provide financial assurance, Section 53.1045(b)(3) requires licensees to provide the text of any proposed amendment to the trust, escrow account, Government fund, or other account used to segregate and manage the funds and a statement of the reason for the proposed amendment. Additionally, the account may not be amended if the person responsible for managing it receives written notice of objection from the Director, Office of Nuclear Reactor Regulation, or Director, Office of Nuclear Material Safety and Safeguards. Section 53.1045(c) requires that written notice of the intention to make a disbursement or payment must be provided to Director, Office of Nuclear Reactor Regulation, or Director, Office of Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the date of the

intended disbursement or payment. The disbursement or payment may then be made following the 30-working day notice period if the person responsible for managing the account does not receive written notice of objection from the Director, Office of Nuclear Reactor Regulation, or Director, Office of Nuclear Material Safety and Safeguards, as applicable, within the notice period. Licensees that are "electric utilities" under § 53.020 that use prepayment or an external sinking fund to provide financial assurance, must provide written notice of the intention to make a disbursement or payment to the Director, Office of Nuclear Reactor Regulation, or Director, Office of Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the date of the intended disbursement or payment. The disbursement or payment from the account may be made following the 30-working day notice period if the person responsible for managing the account does not receive written notice of objection from the Director, Office of Nuclear Reactor Regulation, or Director, Office of Nuclear Material Safety and Safeguards, as applicable, within the notice period. Disbursements or payments from the account used to segregate and manage the funds, other than for payment of ordinary administrative costs and other incidental expenses of the fund in connection with the operation of the fund, are restricted to decommissioning expenses or transfer to another financial assurance method acceptable under § 53.1040 until final decommissioning has been completed.

Section 53.1060 establishes reporting and recordkeeping requirements related to decommissioning. Section 53.1060(a) requires OL and COL holders to report, at least every two years, on the status of the certification of decommissioning funding for each commercial nuclear plant of part of a plant they own. Any licensee for a plant that is within 5 years of the projected end of its operation, or where conditions have changed such that it will close within 5 years, or that has already closed, or that is involved in a merger or an acquisition, are required to submit this report annually. Section 53.1060(b) requires COL holders to submit, 2 years before and 1 year before the scheduled date for initial loading of fuel or initiating the removal of the features to prevent criticality required under § 53.620(d)(1) for a fueled manufactured reactor, a report to the NRC containing a certification updating the decommissioning cost estimates and a copy of the financial instrument to be used to satisfy § 53.1040. No later than 30 days after the Commission publishes notice in the Federal Register under § 53.1452(a), the licensee is required to submit a report containing a certification that financial assurance for decommissioning is being provided in an amount specified in the licensee's most recent updated certification, including a copy of the financial instrument obtained to satisfy § 53.1040. Section 53.1060(c) requires licensees to keep records of information important to the safe and effective decommissioning of the facility in an identified location until the license is terminated by the Commission. Section 53.1060(d) requires OL and COL holders to, about 5 years prior to the projected end of operations, submit a preliminary decommissioning cost estimate (DCE). Section 53.1060(e) requires licensees to, prior to or within 2 years following permanent cessation of operations, submit a post shutdown decommissioning activities report (PSDAR) to the NRC, and a copy to the affected State(s). Section 53.1060(g) requires licensees to, after the DCE required by paragraph (e) of this section is submitted and until the licensee has completed the final radiation survey and demonstrated that residual radioactivity has been reduced to a level permitting termination of the license, annually submit to the NRC a financial assurance status report. Section 53.1060(h) requires licensees to, after the DCE required by paragraph (e) of this section is submitted, annually submit to the NRC a report on the status of funding for managing irradiated fuel.

Section 53.1070 establishes requirements for the termination of licenses. Section 53.1070(a)(1) requires licensees to submit a written certification to the NRC within 30 days of determining to permanently cease operations. Section 53.1070(a)(2) requires licensees to make appropriate submittals to the NRC in accordance with § 53.1510 to request any changes to technical specifications needed. Section 53.1070(a)(3)(i) requires licensees to submit a written certification to the NRC once fuel has been permanently removed from the reactor vessel. Section 53.1070(d)(1) requires licensees to, prior to or within 2 years following permanent cessation of operations, submit a PSDAR and site-specific DCE in accordance with § 53.1060(e). Section 53.1070(i) requires licensees to submit applications for termination of license in accordance with § 53.1070. The application needs to be accompanied or preceded by a license termination plan to be submitted for NRC approval.

Section 53.1075 establishes program requirements for decommissioning. Licensees who have submitted the certifications under § 53.1070 are required to maintain a decommissioning fire protection program. Licensees also need to assess the program on a regular basis, and revise program documentation as appropriate.

Section 53.1080 establishes requirements for release of part of a commercial nuclear plant or site for unrestricted use. Section 53.1080(a) requires that licensees obtain prior written NRC approval to release part of a commercial nuclear plant or site for unrestricted use at any time before receiving approval of a license termination plan. Recordkeeping requirements for partial release are specified in § 53.1060. Licensees seeking NRC review and approval also are required to evaluate the effect of releasing the property, perform a historical site assessment and perform surveys to demonstrate compliance with the radiological criteria for unrestricted use. Section 53.1080(b) specifies that, for release of non-impacted areas, licensees may submit a written request for NRC review and approval of the release if a license amendment is not otherwise required. For release of impacted areas, Section 53.1080(d) requires licensees to submit an application for amendment of its license for the release of the property.

Section 53.1100 establishes requirements for filing applications for licenses, certifications, or approvals and related reporting obligations. Section 53.1100(a)(1) requires applications for licenses, certifications, or approvals, and amendments to applications to be submitted to the NRC in accordance with § 53.040. Burden for this requirement is included in the application burden for ESPs under Section 53.1140, standard design approvals under Section 53.1200, standard design certifications under Section 53.1230, MLs under Section 53.1270, CPs under Section 53.1300, OLs under Section 53.1360, and COLs under Section 53.1410. Section 53.1100(a)(2) requires that applicants for a CP, ESP, COL, or ML, upon notification of a public hearing, update the application and serve the updated copies to the presiding officer. Section 53.1100(f) requires applicants to submit an Environmental Report, as required under Subpart A of Part 51, with an application for a CP, OL, ESP, design certification (DC), COL, or ML. This burden is covered under Part 51 (clearance number 3150-0021).

Section 53.1109 describes the general contents that must be provided in an application.

Section 53.1115 requires applicants to agree in writing to prohibit individuals from permitting any individual to have access to or any facility to possess Restricted Data or National Security Information until the individual and/or facility has been approved for access under Parts 25 and/or 95. The agreement of the applicant becomes part of the license or standard design approval.

Section 53.1130 establishes provisions for requesting an LWA and associated reporting requirements. Section 53.1130(a)(1) describes eligibility for requesting an LWA. Section 53.1130(a)(2) requires applications for an LWA to be submitted as part of a complete application for a CP or COL in accordance with § 2.101(a)(1) through (a)(5), as part of a partial application in accordance with § 2.101(a)(9), or as part of a complete application by an ESP holder in accordance with § 2.101(a)(1) through (a)(4). Section 53.1130(a)(3) outlines the contents to be included in the application, which consist of a Safety Analysis Report (SAR) in accordance with §§ 53.1309 or 53.1416, an environmental report in accordance with § 51.49, and a plan for redress of activities performed under the LWA in the event that it is terminated, revoked, or denied.

Section 53.1140 introduces requirements for ESP applications.

Section 53.1144 requires applications for ESPs to contain all of the information required by § 53.1109(a) through (d) and (j).

Section 53.1146 identifies the technical information that must be reported in an application for an ESP. Section 53.1146(a)(1) requires the inclusion of a Site Safety Analysis Report containing a description and assessment of the site that meets the requirements of Subpart D of 10 CFR Part 53. Section 53.1146(a)(2) requires the submission of a complete environmental report in accordance with § 51.50(b). Section 1146(b)(2) describes additional information that must be included in the Site Safety Analysis Report, such as proposed emergency plans. Section 53.1146(c) allows an applicant to request that an LWA be issued in conjunction with the ESP, provided the application includes the content required by § 53.1130. Section 53.1146(d) requires applicants for an ESP to protect safeguards information (SGI) against unauthorized disclosure in accordance with §§ 73.21 and 73.22.

Section 53.1173(a) allows the holder of an ESP to apply for a renewal between 12 and 36 months before the permit expires, provided the permit holder submits all information necessary to update the content of the previous application.

Section 53.1182 requires an ESP holder to inform the Director of the Office of Nuclear Reactor Regulation of any significant uses for the site that are not approved in the permit at least 30 days in advance of any construction or site modification activities.

Section 53.1188 establishes provisions with respect to the finality of ESP determinations. Section 53.1188(b) requires applications for a CP, OL, or COL that reference an ESP issued under Subpart H to provide updated emergency preparedness information and a discussion of whether these updates materially change the bases for compliance with NRC requirements. Section 53.1188(d) permits CP, OL, or COL applicants to request a variance from one or more site characteristics, design parameters, or terms and conditions of the ESP or Site Safety Analysis Report. Section 53.1188(e) requires ESP holders to request changes through an application for a license amendment.

Section 53.1200 introduces requirements for standard design approval applications.

Section 53.1206 requires applications for a standard design approval to contain all of the information required by § 53.1109(a) through (c) and (j).

Section 53.1209 establishes the technical information that must be reported in an application for a standard design approval. Section 53.1209(a) describes the contents of the submission of a major portion of a standard design. Section 53.1209(b) requires the application to contain a FSAR that includes an analysis and evaluation of the design in terms of the site parameters and the required design information.

Section 53.1210 requires applications to include a description of availability controls, a description of the program to protect SGI, a report documenting any research required to resolve any safety questions associated with SSCs, and a description of how the performance of each design feature fulfills functional design criteria.

Section 53.1221 requires applicants to maintain records of information normally contained in engineering documents, including analyses, drawings, procurement specifications, and construction and installation specifications, and make them available for the NRC to audit upon request.

Section 53.1230 introduces requirements for standard design certification applications.

Section 53.1236 requires an application for a standard design certification to contain all of the information required by § 53.1109(a) through (c) and (j).

Section 53.1239 describes the technical information that must be reported in application for a standard design certification. This information includes performance requirements and design information, information normally contained in engineering documents that must be available for audit, and the FSAR.

Section 53.1241 requires applicants for a standard design certification to include in the application an environmental report as required by § 51.55, a description of availability controls, the proposed inspections, tests, analyses, and acceptance criteria (ITAAC), a description of the program to protect SGI, a description of the research supporting the resolution of any safety questions associated with SSCs, and a description of how each design feature is capable of fulfilling functional design criteria.

Section 53.1254 requires applications for a renewal of the certification to update the information contained in the previous application and to apply for the renewal between 12 and 36 months before expiration. Applicants are also required to make information normally contained in engineering documents available for audit.

Section 53.1257 allows applicants to request an amendment to the design certification in their application for renewal. If the amendment request results in an essentially new standard design, an application for a design certification needs to be filed.

Section 53.1263 establishes provisions for the finality of standard design certifications.

Section 53.1263(b) allows applicants who reference a design certification rule to request an exemption from one or more elements of the certification information. Section 53.1263(c) requires applicants to retain information normally contained in engineering documents, such as analyses, drawings, procurement specifications, or construction and installation specifications, and make them available for the NRC to audit.

Section 53.1270 introduces requirements for ML applications.

Section 53.1276 requires an application for an ML to contain the information required by § 53.1109(a) through (e) and (j).

Section 53.1279 establishes the technical information that must be reported in an application for an ML. Section 53.1279(a) requires the FSAR to include site parameters, design information equivalent to that required for a standard design certification as defined in § 53.1239(a)(2) through (27), a description of the quality assurance program, conceptual designs, operation configurations, and interface requirements. Section 53.1279(b) would require the FSAR to include manufacturing information, such as a description of the processes used to procure, fabricate, and assemble components of the manufactured reactor or manufactured reactor module, a description of the organizational and management structure responsible for design and manufacture of the manufactured reactor or manufactured reactor modules, and a description of the inspections and tests to be performed as part of the manufacturing process. Section 53.1279(c) requires the inclusion of information related to the deployment of the manufactured reactor or manufactured reactor module. Section 53.1279(d) requires the inclusion of information related to factory fueling.

Section 53.1282 requires applications for MLs to include the proposed ITAAC, an environmental report in accordance with § 51.54, a description of the program to protect SGI, and a description of how each design feature is capable for fulfilling functional design criteria.

Section 53.1288 establishes the finality of MLs. Section 53.1288(b) allows an applicant who references or uses a manufactured reactor or manufactured reactor module under an ML to include in the application a request for a departure from the design characteristics, site parameters, terms and conditions, or approved design of the manufactured reactor module.

Section 53.1295 requires applicants for a renewal of an ML to update the information contained in the previous application and to submit it between 12 months and 5 years of expiration of the current license. Applications for a license renewal need to be filed in accordance with 10 CFR Part 2 and § 53.1100.

Section 53.1300 introduces requirements for CP applications.

Section 53.1306 establishes the general information to be included in an application for a CP in addition to the information required by § 53.1109. Section 53.1306(a) requires applicants, except for electric utility applicants, to demonstrate their financial qualification to carry out the activities for which the permit is sought. Section 53.1306(b) requires applicants that propose to construct or alter a facility to state the earliest and latest dates for completion of the construction or alteration.

Section 53.1309 establishes the technical information to be reported in an application for a CP. This section requires the submission of a Preliminary Safety Analysis Report (PSAR), which includes site information, design information, a description of the applicant's technical qualifications to engage in the proposed activities, preliminary emergency preparedness plans, a description of the physical security plans and measures to meet § 53.540, and a description of the program to protect SGI.

Section 53.1312 requires applications for a CP to include other information in addition to the PSAR. Section 53.1312(a)(1) requires the submission of an environmental report under § 51.50(a), or if an LWA is requested in conjunction with the CP, the environmental report must be submitted under §§ 51.49 and 51.50(a). If the applicant requests that the LWA be issued prior to the issuance of the CP, the application needs to include the information otherwise required by § 53.1130. Section 53.1312(b) describes additional specifications about the information to be included in the PSAR for CP applications that reference an ESP, standard design approval, or standard design certification.

Section 53.1327 requires applicants to implement an approved site redress plan if the application for the CP is withdrawn or denied after an applicant has performed the activities authorized under § 53.1130.

Section 53.1330 establishes provisions for exemptions, departures, and variances from a CP. Section 53.1330(a) enables applicants for a CP or an amendment to a CP to include a request for an exemption from one or more of the Commission's regulations in their application. Section 53.1330(b) allows applications for a CP that reference an NRC approval, permit, or certification to include a request for exemptions, departures, or variances related to the subject referenced in the NRC approval, permit, or certification.

Section 53.1333(b), when incorporated as a provision in the CP by the Commission, requires CP holders to provide periodic reports of the progress and results of research and development programs designed to resolve safety questions.

Section 53.1336 provides that applicants may request that the Commission approve the safety of any design feature or specification in the application for a CP or amendment to the CP.

Section 53.1348 requires a CP holder to submit a written certification to the NRC within 30 days of ceasing construction.

Section 53.1360 introduces requirements for OL applications.

Section 53.1366 establishes the general information to be included in an application for an OL in addition to § 53.1109. Section 53.1366(a) requires applicants except for electric utility applicants to provide information demonstrating their financial qualifications to carry out the activities for which the license is sought and a financial capacity plan. Section 53.1366(b) requires the submission of a report that describes, in accordance with Subpart G, how reasonable assurance will be provided that funds will be available for decommissioning, including a copy of the financial instrument obtained to satisfy the requirements of § 53.1040.

Section 53.1369 establishes the technical information to be provided in the FSAR that must be submitted with an application for an OL. Section 53.1369(a) outlines several categories of information that must be included in the report.

Section 53.1372 requires applicants for an OL to submit information in addition to the FSAR. Section 53.1372(a) requires the submission of an environmental report in accordance with § 51.53(b). Section 53.1372(b) requires a description of the controls on plant operations, including availability controls.

Section 53.1384(a) allows applicants for an OL to request and the NRC to grant an exemption from one or more of the Commission's regulations if it complies with § 53.080.

Section 53.1384(b) allows applicants to request an exemption, departure, or variance from an NRC approval, permit, license, or certification in an application for an OL that references one of these documents.

Section 53.1402 requires applications for renewal of an OL to be filed in accordance with § 53.1595

Section 53.1410 introduces requirements for COL applications.

Section 53.1413 establishes the general information to be included in an application for a COL in addition to § 53.1109. Section 53.1413(a) requires all applicants except electric utilities to provide information demonstrating financial qualification to carry out the activities for which the permit or license is sought, including estimates of the total construction costs and related fuel cycle costs of the facility, total annual operating costs for each of the first 5 years of operation of the facility, a financial capacity plan, and any source(s) of funds available at the time of application to cover these costs.

Section 53.1416 establishes the categories of technical information that must be included in the FSAR upon submitting an application for a COL.

Section 53.1419 requires the submission of other information in addition to the FSAR. Section 53.1419(a)(1)(i) requires the submission of an environmental report in accordance with § 51.50(c), or, for applications in which an LWA is requested in conjunction with the COL, an environmental report in accordance with §§ 51.49 and 51.50(c). For applicants that request that an LWA be issued prior to the COL, the application is required to include the information otherwise required by § 53.1130. Section 53.1419(a)(2) requires a description of the controls on plant operations, including availability controls. Section 53.1419(a)(3) requires the applicant to state the proposed ITAAC.

Section 53.1437(a) allows an applicant for a COL or license amendment to include a request for an exemption from one or more NRC regulations in the application. Section 53.1437(a)(1) allows the Commission to grant an exemption from any part of a standard design certification rule referenced in the application for a COL if the Commission determines that the exemption complies with any exemption provisions referenced in the standard design certification rule, or with § 53.1263. Section 53.1437(a)(2) states that the Commission may grant any other request for an exemption upon determining that it complies with § 53.080. Section 53.1437(b) allows applications that reference an ESP issued under § 53.1158 to request a variance from the permit or from the Site Safety Analysis Report. Section 53.1437(c) allows applicants that reference a manufactured reactor to request a departure from design characteristics, site parameters, terms and conditions, or the approved design of the manufactured reactor under the manufacturing license issued under § 53.1287.

Section 53.1449(a) requires licensees to submit a schedule for completing the proposed ITAAC within one year of obtaining a COL or starting construction, and to submit updates to the ITAAC schedule every 6 months thereafter. ITAAC schedule updates must be provided every 30 days within 1 year of the scheduled date for initial fuel loading or initiating the removal of the features to prevent criticality required under § 53.620(d)(1) until the final notification is provided under § 53.1449(c)(1). Section 53.1449(c) establishes ITAAC closure notification provisions that govern licensees' submissions of information demonstrating the performance of inspections, tests, or analyses, and fulfillment of acceptance criteria. Section 53.1449(d) allows licensees that have not demonstrated compliance with the prescribed acceptance criteria to request an exemption through an application for a license amendment under Subpart I.

Section 53.1452 requires the licensee to notify the NRC of its scheduled date for initial fuel loading at least 270 days prior, and to notify the NRC of updates to its schedule every 30 days thereafter.

Section 53.1458 requires applications for renewal of a COL to be filed in accordance with § 53.1595.

Section 53.1470 requires applicants who seek a license to operate nuclear power reactors of identical design at multiple sites to submit an application for a CP, OL, or COL in accordance with §§ 53.1300, 53.1360, or 53.1410, respectively, or specify that other applications will be submitted to the NRC within 18 months of the submittal of the first application. This section also establishes additional information that must be submitted for the application to be considered.

Section 53.1505(b) establishes the requirements for licensees changing licensing basis information through an exemption.

Section 53.1510 establishes requirements for the contents of the application for amendment of license.

Section 53.1515 establishes requirements for public notices and State consultation.

Section 53.1515(a)(5)(vi) requires that where a license amendment involving no significant hazards is needed to address an emergency situation, licensees must explain why they face an unavoidable exigency. The Commission needs to evaluate this explanation to determine whether to allow the amendment without prior notice or use its normal notice and comment procedures. Section 53.1515(b)(1) requires licensees to notify the State in which the facility is located of their request for an amendment and indicate on the application that they have done so.

Section 53.1525 establishes requirements for revising certification information within a design certification rule. Section 53.1525(a) requires licensees to submit a request for exemption if they are proposing such a revision. Section 53.1525(b) requires the exemption request to be included with the associated license amendment request. Section 53.1525(c) requires licensees to evaluate changes to the design as described in the FSAR not involving changes to the certification information using the criteria in § 53.1550.

Section 53.1530(a) establishes requirements for revising information within an FSAR associated with an ML without obtaining a license amendment. This section requires an application for amending an ML to be submitted and processed in accordance with §§ 53.1510, 53.1515, and 53.1520 and for the holder of the ML to request an exemption from the design certification rule in accordance with § 53.1525, if needed. Section 53.1530(b)(1) requires the holder of an ML to maintain records of changes in the facility or procedures made under § 53.1530(a). Section 53.1530(b)(2) requires the holder of an ML to maintain records of changes in the facility until expiration of the ML or the expiration of a renewed license issued under § 53.1295, whichever is later. Records of changes in procedures must be maintained for five years.

Section 53.1535 establishes requirements for amendments during construction. Section 53.1535(a) requires CP or LWA holders to request an amendment to gain Commission approval of the safety of selected design features or specifications. Section 53.1535(b) requires holders of COLs, for which the NRC has not yet made a finding in accordance with § 53.1452(g), to request amendments required by §§ 53.1525 or 53.1550 no later than 45 days from the date the licensee begins the construction of the SSCs to implement the change or departure requiring NRC approval.

Section 53.1540 establishes requirements for updating licensing-basis information and determining the need for NRC approval, noting §§ 53.1545 through 53.1565 provide the process for licensees to modify licensing basis information and to evaluate potential changes to its facilities, procedures, programs, and organizations to determine if NRC approval is required.

Section 53.1545 establishes requirements for updating FSARs. The section specifies what is needed in an updated FSAR, how often it must be submitted, and how long it must be retained.

Section 53.1550 establishes requirements for evaluating changes to the facility as described in the FSAR. Section 53.1550(b)(2) requires licensees to maintain records of all departures from the certified design of the facility and keep them available for audit until the license is terminated. Licensees are also required to identify the location and nature of departures from licensing-basis information within supporting documents for a certified design within the updates to the SAR required by § 53.1545. Section 53.1550(c)(1) requires licensees to maintain records of changes in the facility and procedures made under § 53.1550(a). Section 53.1550(c)(2) requires licensees to submit a report containing a description and evaluation of any departures and changes at least every 24 months, or every 6 months for COL applicants from the date of application to the date that the Commission makes its findings under § 53.1452(g). Section 53.1550(c)(3) requires licensees to maintain records of changes in the facility until termination of an OL, COL, or renewed license. Records of changes in procedures must be maintained for five years.

Section 53.1560 establishes requirements for updating program documents included in licensing basis information. Section 53.1560(a) requires OL or COL licensees to update program documents at least biennially. The section describes what must be included in the submission, and how long it must be retained by the licensee. Section 53.1560(c) requires licensees to retain the program documents until the Commission terminates the license.

Section 53.1565 establishes requirements for evaluating changes to programs included in licensing basis information. Section 53.1565(d)(1)(i) allows OL or COL licensees to make changes to the previously accepted quality assurance program description included in the FSAR, so long as it does not reduce commitments and is submitted to the NRC in accordance with the requirements of § 53.1545. Section 53.1565(d)(1)(i)(2)(A) requires licensees to submit and receive NRC approval for a change made to the quality assurance program description in the SAR or in a topical report prior to implementation. Section 53.1565(d)(1)(i)(2)(B) requires the submittal of a change to the SAR QA program description to include all pages affected by that change, as well as a forwarding letter identifying the change, reason for the change, and the basis for concluding that the revised program incorporating the change continues to satisfy the criteria of Appendix B to 10 CFR Part 50 and the SAR QA program description commitments previously accepted by the NRC. Section 53.1565(d)(1)(i)(2)(C) requires the forwarding letter be maintained as a record for three years. Section 53.1565(d)(2) establishes requirements for submission of changes to the QA program description that do not reduce the commitments previously accepted by the NRC, and those that do reduce the commitments (including the maintenance of the forwarding letter identifying the changes). Sections 53.1565(d)(2)(i) through 53.1565(d)(2)(iii) establish requirements for the submission of changes to the quality assurance program description that reduce commitments, which must be approved by the NRC prior to implementation. Section 53.1565(d)(2)(iv) requires that changes to the QA program description be regarded as accepted by the Commission upon receipt of a letter from the appropriate reviewing office of the Commission or 60 days after submittal to the Commission, whichever occurs first. Section 53.1565(d)(3) establishes requirements for submission of changes to the emergency plan. Licensees are able to make changes to the emergency plan without NRC approval if they perform and retain an analysis showing the changes do not reduce the effectiveness of the plan. The licensee needs to retain records of each change to the plan without prior NRC approval for three years and submit a report of each change within 30 days. For changes that do reduce the effectiveness of the plan, licensees are required to submit an application for an amendment to its license and retain the emergency plan and each change for which approval was obtained as a record. Section 53.1565(d)(4) establishes requirements for submission of changes to security programs. For changes that reduce the safeguard effectiveness of the physical security plan, guard training and qualification plan, cybersecurity plan, or the first four categories of information (Background, Generic Planning Base, Licensee Planning Base, Responsibility Matrix) contained in a licensee safeguards contingency plan, licensees are required to submit an application for an amendment to its license. Changes to the safeguards contingency program that do not reduce its effectiveness can be made without prior Commission approval. Records of such changes need to be retained for 3 years, and licensees need to submit a report describing each change within 2 months. Section 53.1565(d)(4)(ii) also describes what licensees must have in place prior to the safeguards contingency plan being put into effect. Sections 53.1565(d)(4)(iii) and (iv) require licensees to provide for the development, revision, implementation, and maintenance of its safeguards contingency plan, as well as periodic review of all program elements. The results of the review and audit, along with recommendations for improvements, needs to be documented, reported to the licensee's corporate and plant management, and kept available at the plant for inspection for a period of 3 years.

Section 53.1570 establishes requirements for the transfer of licenses. Section 53.1570(b) describes what must be included in an application for the transfer of a license.

Section 53.1575 establishes requirements for the termination of a license. Section 53.1575(a) requires licensees to submit a written certification to the NRC once the licensee has determined to permanently cease operations. Section 53.1575(b) requires licensees to submit a written certification to the NRC once fuel has been permanently removed from the reactor. Section 53.1575(d) allows COL and CP holders to request the termination of a license prior to operation.

Section 53.1580 establishes requirements for information requests and requires licensees to submit, upon request of the Commission, written statements signed under oath or affirmation, to enable the Commission to determine whether or not the license should be modified, suspended, or revoked.

Section 53.1620 establishes requirements for the maintenance of records and making of reports. Section 53.1620(a) describes general provisions for the maintenance of records and making of reports as required by the license or permit or the regulations and orders of the Commission, and the Energy Reorganization Act of 1974, as amended. Section 53.1620(c) requires that all records must be retained until the Commission terminates the license, or the ESP expires, if applicable, unless the applicable regulation, license condition, or technical specification specifies otherwise. Section 53.1620(d)(1) establishes that the record may be the original, or a reproduced copy or microform, under certain conditions, or be stored in electronic media. This section also describes what must be included in certain types of records and that licensees must maintain adequate safeguards against tampering with, and loss of records. Section 53.1620(d)(2) requires that if there is conflict between the retention period specified in the regulations, license condition, or technical specification, or other written Commission approval or authorization, the retention period specified in the regulation applies, unless the Commission has granted a specific exemption. Section 53.1620(e) requires licensees to notify the Commission of successfully completing power ascension testing or startup testing within 30 days of completing it.

Section 53.1630 contains immediate notification requirements for operating commercial nuclear plants. Section 53.1630(a) describes the type of events that the NRC Headquarters Operations Center, and State or local agencies, must be notified of, how and when the notification must be made, and what information must be included in the notification. Section 53.1630(b) details the types of reports for non-emergency events – one-hour reports, four-hour reports, and eight-hour reports – and specifies when and for what conditions each must be made. Section 53.1630(c) requires follow-up notifications in addition to the initial notification under paragraphs (a) and (b). The burden for the notification requirements contained in this section are covered under OMB Clearance No. 3150-0238.

Section 53.1640 establishes requirements related to the licensee event report (LER) system. The section describes how and when LERs must be submitted, what events must be reported, what information the LER must contain, and that reports must be of sufficient quality to permit legible reproduction. Section 53.1640(c) states that the Commission may also require additional information be submitted depending on the event, which licensees have to submit as a supplement to the initial LER. The burden for submitting LERs is accounted for under OMB Clearance No. 3150-0104.

Section 53.1645 requires OL and COL licensees to submit radiological reports to the NRC as required by 10 CFR Part 20, as well as an Annual Radioactive Effluent Release Report and an Annual Radiological Environmental Operating Report. The Annual Radioactive Effluent Release Report needs to specify the quantity of each of the principal radionuclides released to unrestricted areas in liquid and gaseous effluents during the previous calendar year. The Annual Radiological Environmental Operating Report needs to provide data on measurable levels of radiation and radioactive materials in the environment and include the results of environmental monitoring during the previous calendar year.

Section 53.1690 establishes requirements related to the licensee's change of status and financial qualifications. Section 53.1690(a) requires that, no more than 75 days prior to an electric utility ceasing to be an electric utility in any manner not involving a license transfer under §§ 53.1399 or 53.1456, the electric utility licensee must submit the financial qualifications information that are required for obtaining an initial OL. Section 53.1690(b) would require licensees to notify the NRC of the filing for bankruptcy under U.S.C. Title 11.

Section 53.1720 establishes requirements for insurance required to stabilize and decontaminate the plant following an accident. Section 53.1720(c) requires licensees to report to the NRC on April 1 of each year the current levels of insurance or financial security maintained and the sources of the insurance or financial security. Section 53.1720(d)(2) requires that, following an accident at the licensee's plant, the licensee must inform the Director of the Office of Nuclear Reactor Regulation in writing when the plant is and can be maintained in a safe and stable condition so as to prevent any significant risk to the public health and safety. The licensee also needs to submit a cleanup plan for the Director's approval within 30 days of informing the Director that the plant has reached a safe and stable condition. The cleanup plan should provide an estimate of the cost of each cleanup operation.