Section 2

DRAFT SUPPORTING STATEMENT
FOR
TECHNICAL SPECIFICATIONS CONTAINED IN LICENSES TO OPERATE NUCLEAR POWER PLANTS AND RESEARCH AND TEST REACTORS AND THEIR REPORTING AND RECORDKEEPING REQUIREMENTS

10 CFR 50.36, 50.36a, 50.36b, AND APPENDIX I[1]

DESCRIPTION OF THE INFORMATION COLLECTION

The Section 2 Supporting Statement reflects the reporting and recordkeeping requirements for nuclear power plants that have converted to the Standard Technical Specifications (STS), Revision 2, those nuclear power plants that have not converted, research and test reactors, and permanently shutdown reactors.

The STS, Rev. 2 (published June 30, 2001), does not include requirements for the following reports: the Startup Report, Sealed Source Leakage Report, Non-Routine Environmental Reports, and a Special Reports on Emergency Core Cooling System (ECCS) actuating and injecting of water into the Reactor Coolant System in MODE 1, 2, or 3, and Emergency Diesel Generator (EDG) Failure for Nuclear Power Plants. Therefore, nuclear power plants that have converted to the STS, Rev. 2, will not submit these reports. Conversely, those nuclear power plants that have not converted to the STS will be responsible for submitting all the reports listed in this Supporting Statement, for technical specifications (TS). Research and test reactors and permanently shutdown reactors will be responsible for reporting as required by their facility-specific TS.

Section 50.36(a) requires each applicant for a license authorizing operation of a production or utilization facility to include in its application proposed TS. A summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application.

Section 50.36(b) requires each license authorizing operation of a production or utilization facility to include TS. The TS are derived from the analyses and evaluations included in the safety analysis report, and amendments thereto, submitted pursuant to 10 CFR 50.34. (See Section 1 Supporting Statement.)

Section 50.36(c) states that TS will include (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. For nuclear power plants that have submitted

[1] Appendix I to 10 CFR 50 consists of numerical guides for design objectives and limiting conditions for plant operation to meet the criterion "as low as is reasonably achievable" for radioactive material in light-water-cooled reactor effluents.

the certifications required by 10 CFR 50.82(a)(1) and for non-power reactors which are not authorized to operate, TS involving (1)-(5) are developed on a case-by-case basis. Section 50.36(c) also requires that certain records be maintained as described in A.1.k of this Supporting Statement.

Section 50.36(c)(7) requires that if the TS for any of the above-mentioned categories are exceeded, the nuclear power plant licensee must notify the Commission, make a record of the review and retain such record until the Commission terminates the license. These notifications are made pursuant to 10 CFR 50.72 (Section 29 Supporting Statement) and 10 CFR 50.73 (OMB Clearance 3150-0104).

Section 50.36a requires each nuclear power reactor license to include TS on effluents. Section 50.36a(a)(1) requires that operating procedures be established and maintained until the Commission terminates the license with superseded procedures retained for three years. Section 50.36a(a)(2) requires the licensee to submit to NRC an annual report of radionuclides released as liquid and gaseous effluents to unrestricted areas (see "Radioactive Effluent Report," below).

Section 50.36b states that each license authorizing operation of a production or utilization facility, and each license for a nuclear power reactor facility for which the certification of permanent cessation of operation required by 50.82(a)(1) has been submitted, which is of a type described in 50.21(b)(2) or (3) or 50.22 or a testing facility may include conditions to protect the environment to be set out in an attachment to the license. These conditions are derived from information contained in the environmental report and the supplement to the environmental report. (See Supporting Statement for 10 CFR Part 51, OMB Clearance 3150-0021.)

No applications for licenses are expected during this clearance period; hence, no initial TS filings are anticipated. However, for the purpose of bounding these estimates, we have assumed that 104 operating and 20 permanently shutdown nuclear power reactors and 36 operating and 15 permanently shutdown research and test (non-power) reactors are affected by the provisions of the various reporting and recordkeeping requirements that NRC approves as part of the TS submitted pursuant to 10 CFR 50.36 and 50.36a. These reporting/recordkeeping requirements are set forth as "administrative controls" in the Appendix A TS appended to each facility license. They are designed to ensure operation of the facility in a safe manner. Additionally, pursuant to 10 CFR 50.36b, environmental reporting and recordkeeping requirements are set forth in Appendix B TS or environmental protection plans. (A few facilities have a single appendix that contains the combined aspect of Appendices A and B.)

The July 19, 1995, final rule on TS for nuclear power reactors (60 FR 36953) codifies the criteria identified in the final policy statement for determining the content of TS. Each licensee covered by these regulations may voluntarily use the criteria as a basis to propose relocation of existing TS that do not meet any of the criteria from the facility license to licensee-controlled documents. The NRC encourages licensees to implement a program to upgrade their TS consistent with the final rule. However, guidelines exist for adopting significant portions of the improved Standard Technical Specifications (STS) (line item improvement) in lieu of a complete conversion. These guidelines are published as Generic Letters or Administrative Letters. (See Section 1 Supporting Statement.)

A. JUSTIFICATION

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

Unless stated otherwise, all reports listed are required to be submitted by all converted and non-converted nuclear power plants and all research and test reactors during this clearance period. Those reports required by permanently shutdown reactors are so identified.

The reporting and recordkeeping burdens with associated justifications are explained below. NRC Regulatory Guide 1.16, Rev. 4, "Reporting of Operating Information - Appendix A Technical Specifications," provides the program being used by the NRC staff in order to standardize the reporting requirements section of Appendix A TS for all operating nuclear power plant licenses.

For nuclear power plant licensees holding operating licenses without Appendix B environmental TS or environmental protection plans, the unique reporting requirements section of the Appendix A TS include those reports identified in Regulatory Guide 1.21, Rev. 1, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," and Regulatory Guide 4.1, Rev. 1, "Programs for Monitoring Radioactivity in the Environs of Nuclear Power Plants."

For research and test reactors, the American National Standards Institute (ANSI)/American Nuclear Society (ANS) Standard 15.1-1990 provides the guidance for technical specifications, including reporting and recordkeeping.

a. Radioactive Effluent Report

The Radioactive Effluent Reports are divided into Exceeding Design Objectives Reports and Annual Effluent Reports. Both of these reports are required to be submitted by converted and unconverted plants and reviewed by the NRC. The non-power reactors and permanently shutdown reactors are required to submit only the Annual Effluent Report for NRC review.

Section 50.36a of 10 CFR Part 50 specifies that to keep releases of radioactive materials to unrestricted areas as low as is reasonably achievable, each nuclear power reactor license must include TS. The NRC staff has developed "Radiological Effluent Technical Specifications (RETS) for PWRs" (NUREG-0472) and "Radiological Effluent Technical Specifications for BWRs" (NUREG-0473). Generic Letter 89-01, "Implementation of Programmatic Controls for Radiological Effluent Technical Specifications in the Administrative Controls Section of the Technical Specifications and the Relocation of the Procedural Details of RETS to the Offsite Dose Calculation Manual (ODCM) or to the Process Control Program (PCP)," permits relocation of the description of the radioactive effluent report content to the ODCM or the PCP. The contents of these three documents (as applicable) and the reporting requirements specified therein are being made part of the Appendix A TS for new operating licenses. These same requirements are

also being added to existing operating licenses as license amendments. (Appendix A TS are approved by the NRC, incorporated in the facility operating license, and are conditions of the license.)

Routine radioactive effluent release reports covering the operation of the nuclear power plant during the previous 12 months of operation are to be submitted prior to May 1 of each year covering the prior year. This report includes a summary of the quantities of radioactive liquid and gaseous effluents released to the environment and solid waste shipped from the site.

Special reports, or reports on exceeding design objectives, are required when certain conditions exist or parameters are exceeded, e.g., when the radiation dose for any calendar quarter is equal to or greater than one half the actual limit, or the annual dose exceeds twice the annual limit; when the liquid, gaseous or solid rad-waste treatment system or the building ventilation system are inoperable for more than 31 days.

b. Startup Report

The Startup Report is not required to be submitted by plants that have converted to the STS or by permanently shutdown reactors. Plants that have not converted and all research and test reactors are required to submit this report.

This report is submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. The report addresses each test identified in the Final Safety Analysis Report (FSAR) and should include a description of the test and the test conditions, the measured values of the operating conditions or characteristics obtained during the test program, and a comparison of these values with design predictions and specifications.

The startup report provides the staff with evidence that the plant systems are functioning as designed and can be expected to perform as planned in the safe operation of the plant.

The report is necessary to identify design deficiencies and to obtain data on plant operation to verify (or provide a basis to modify) TS limits for operation. The data are also necessary for guidance in determining core reload requirements based on physics data obtained in testing to reveal areas where additional performance verification testing is required or where further guidance is needed through additional regulatory guides or revision of existing guides.

c. Sealed Source Leakage Report

The Sealed Source Leakage Report is not required to be submitted by some of the more recent plant TS and by plants that have converted to the STS. All other nuclear power plants and all research and test reactors are required to submit this report.

Records documenting sealed source leakage data are to be maintained by the licensee for at least 5 years. Depending on the degree and circumstances of the sealed source leakage, a report may still be required by other 10 CFR requirements (e.g., 10 CFR 20).

For some nuclear facility licenses, the reporting requirements for sealed sources licensed under 10 CFR Part 50 are included as a TS appended to the nuclear facility license or other applicable license requirements (10 CFR 70). For some plants, a special report should be submitted within 90 days following a test in which the results indicate removable contamination levels greater than 0.005mCi. Most reporting will be made annually since any license that requires more frequent reporting can be amended, at the request of the licensee, to call for annual reports.

Information on any sealed source that exceeds the limitation on removable contamination should be reported annually for the licensed nuclear facility. If such information was not received, the quality assurance record for sealed sources used in operating a nuclear facility would be incomplete and failures would not be reported. Thus, the manufacturing process for maintaining the integrity of sealed sources under various operating conditions could be unknowingly deficient.

d. Monthly Operating Report

The Monthly Operating Reports are applicable only to operating nuclear power plants, not to the research and test reactors, nor to permanently shutdown reactors. The TS require a report of operating statistics and shutdown experience. This report is submitted to the Commission by licensees on a monthly basis. Information submitted in the "Monthly Operating Report" includes (1) Average Daily Unit Power Level; (2) Operating Data; (3) Unit Shutdowns and Power Reductions; and (4) Spent Fuel Storage Capacity, and is used as performance indicators.

Using the data from licensees' monthly reports and information received from NRC regional offices, the NRC prepares a monthly report entitled "Operating Units Status Report." The report indicates, for each licensed unit, average daily power levels, operating status, unit shutdowns and power reductions, and summaries for all nuclear plant operations, including the capability to off-load spent fuel.

This monthly report is used by the NRC, the Department of Energy, and other Federal and State agencies. This report is necessary for Federal and State agencies to keep abreast of current plant operating data, including plant availability, which is of particular use during periods of reduced power output from other energy sources. Copies of the report are sent to the utilities to share with them the operating experience of other operators of nuclear power plants. The report is also available to the public.

e. Non-Routine Environmental Reports

The Non-Routine Environmental Reports are not required to be submitted by plants that have converted to the STS. These reports have been removed from the improved STS because they fall within the jurisdiction of other agencies. The removed reports do not meet any of the established criteria for inclusion in the STS. Those operating and permanently shutdown plants that have not converted to the improved STS must continue to comply with the requirements in their current TS.

Research and test reactors are not required to submit this report unless an event occurs at a facility which is beyond the TS or 10 CFR 20 requirements.

The non-routine report provides information which specifies and quantifies data concerning unusual events and provides the basis for recommending appropriate action. It provides data in a timely fashion so that changes in operating procedures or design modifications can be implemented as soon as possible. The NRC staff performs a detailed analysis of each event warranting such a study.

f. Annual Environmental Operating Report

Section 50.36b authorizes conditioning of applicable licenses to protect environmental values, e.g., commercial and sport fisheries, rare and endangered species, recreational land and water use. Nonradiological license conditions are generally incorporated in the license as Appendix B Environmental Technical Specifications or environmental protection plans. These conditions include requirements for an Annual Environmental Operating Report.

The purpose of nonradiological environmental monitoring is to confirm the environmental assessments presented in the Final Environmental Statement (FES) which described the impact of the proposed facility. The nonradiological programs are also designed to detect unanticipated adverse impacts (i.e., adverse impacts which exceed predictions of the FES or impacts that were not predicted) soon enough to take appropriate action.

Monitoring programs are usually incorporated to assess the magnitude of predicted adverse impacts. If the impacts are different from those anticipated, the licensee or staff can take action to change the TS, plant design, or operating procedures to more adequately account for the actual effects of facility operation.

g. Annual Radiological Environmental Operating Report

Each reactor license includes a TS requiring submission of annual radiological environmental operating reports. This report covers the operation of the plant during the previous calendar year and shall be submitted by May 15 of each year for nuclear power plants and as required by TS for non-power reactors. The material in the report is outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I.

The annual radiological environmental operating reports include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports also include the results of land use censuses required by the TS and/or ODCM. If harmful effects or evidence of irreversible damage are detected by the monitoring, the report provides an analysis of the problem and a planned course of action to alleviate the problem.

The annual radiological environmental operating reports include summarized and tabulated results in the format of the table in the "Radiological Assessment Branch Technical Position," Revision 1, November 1979[2], of all radiological environmental samples taken during the report period. In the event that some results are not available for inclusion with the report, the report is submitted noting and explaining the reasons for the missing results. The missing data are submitted as soon as possible in a supplementary report.

The report also includes the following: a summary description of the radiological environmental monitoring program; a map of all sampling locations keyed to a table giving distances and directions from the reactor; and the results of licensee participation in the Interlaboratory Comparison Program, required by the TS.

The report provides a record of environmental radiation around the plant. The report is reviewed by the NRC staff to determine whether radioactive material released routinely by nuclear power plants may have resulted in excessive environmental radiation. Without the report, the NRC staff could not provide adequate assurance that the public is being protected from such environmental radiation.

h. Occupational Radiation Exposure Report

The Occupational Radiation Exposure Report, submitted annually as required by the TS, is a statistical summary of ranges of exposures. It provides data on sources of radiation exposure that provides key feedback to licensing and inspection programs related to radiation protection. Specifically, it is generally a tabulation of the number of station, utility, and other personnel (including contractors) receiving exposures > 100 mrem/yr and their associated man rem exposures according to work and job functions, e.g., reactor operations and surveillance, in service inspection, routine maintenance, special maintenance, waste processing, and refueling. This tabulation supplements the requirements of 10 CFR Part 20.

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[2] This document pertains to the radioactive effluent reporting requirements discussed in paragraph a.

The information on occupational personnel radiation exposure submitted by the licensees is necessary to enable the NRC staff to analyze procedures and hardware radiation exposure problems associated with operation, outage, or maintenance. The information provides a basis for evaluation of new plant designs or for modifications to present plant designs with respect to assuring that plants are designed for as low as reasonably achievable occupational radiation exposure.

Using data submitted by the licensees, the NRC also prepares an annual report entitled "Occupational and Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities" (NUREG-0713). Included in the report is a compilation of in-plant occupational exposure data by work and job function. The information is required to establish trends among plants and within plants.

i. Special Reports

Special Reports may be required covering inspection, test, and maintenance activities. These special reports are determined for each unit individually and are prepared and submitted as designated in the units' TS.

Special Reports shall be submitted in accordance with 10 CFR 50.4 within the time period specified for each report.

Some Special Reports are:

(1) Emergency Core Cooling System (ECCS) Events Report

This report refers to ECCS events that actuate and inject water into the Reactor Coolant System (RCS) in MODE 1, 2, or 3. It describes the circumstances of the actuation and the total accumulated actuation cycles to date. This special report is not required to be submitted by nuclear power plants that have converted to the STS, nor by permanently shutdown reactors. Nuclear power plants that have not converted are required to submit this report. Research and test reactors are required to submit this report in accordance with their TS.

(2) EDG Failure Report for Nuclear Power Plants

If an individual emergency diesel generator (EDG) experiences four or more valid failures in the last 25 demands, these failures and any nonvalid failures experienced by the EDG in that time period shall be reported within 30 days. The special report is not required to be submitted by nuclear power plants that have converted to the STS, nor permanently shutdown reactors. Nuclear power plants that have not converted are required to submit this report. Research and test reactors are not required to submit this report in accordance with their TS.

(3) PAM Report for Nuclear Power Plants

When a special report is required by TS Limiting Condition for Operation, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days from the time the action is required. When required, this report ensures that the NRC promptly responds to situations with the potential to seriously impact public health and safety.

(4) Tendon Surveillance Report for Nuclear Power Plants

Any abnormal degradation of the containment structure detected during the tests required by the Pre-Stressed Concrete Containment Tendon Surveillance Program shall be reported to the NRC within 30 days. This report may not be required by nuclear power plants that have converted to the STS.

(5) Steam Generator Tube Inspection Report for Nuclear Power Plants

Following each in-service inspection of steam generator (SG) tubes, in accordance with the SG Tube Surveillance Program, the number of tubes plugged and tubes sleeved in each SG shall be reported to the NRC within 15 days. This report ensures that the NRC promptly responds to situations with the potential to seriously impact public health and safety.

The complete results of the SG tube in-service inspection shall be submitted to the NRC within 12 months following the completion of the inspection.

Results of SG tube inspections that fall below a prescribed standard shall be reported to the NRC prior to resumption of plant operation.

j. Core Operating Limits Report (COLR) for Nuclear Power Plants

Core operating limits are established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and are documented in the COLR. The core operating limits are determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, ECCS limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.

The COLR reduces NRC and industry burden. The COLR includes core operating limits that vary from cycle to cycle and are determined through an NRC approved methodology. By having these limits located in the COLR, which is referenced by TS, the need for a license amendment after each refueling is reduced and hence all the effort associated with a license amendment is reduced.

k. Recordkeeping Requirements

NRC regulations in 10 CFR 50.36 and 50.36a establish requirements for recording results of reviews of events reported to the Commission, including those reported in accordance with 50.36(c) (See below) and 50.72 and 50.73, and requirements for recordkeeping as part of administrative controls. These records are maintained primarily for the life of the plant. Certain records are only retained for 3 years or as specified in TS.

Section 50.36(c)(1)(i)(A) requires recording the results of reviews of nuclear reactor events in which a safety limit has been exceeded.

Section 50.36(c)(1)(i)(B) requires recording the results of the reviews of fuel reprocessing plant events in which a safety limit has been exceeded.

Section 50.36(c)(1)(ii)(A) requires recording the results of reviews of nuclear reactor events in which an automatic safety system does not function as required.

Section 50.36(c)(1)(ii)(B) requires recording the results of reviews of fuel reprocessing plant events in which an automatic alarm or protective device does not function as required.

Section 50.36(c)(2) requires recording the results of reviews of events in nuclear reactors and fuel reprocessing plants in which a limiting condition for operation is not met. Each of the above records of review must include the cause of the condition and the basis for corrective action taken to preclude recurrence.

Section 50.36(c)(5) requires that administrative controls, including recordkeeping, be included in the TS of a production or utilization facility as necessary to assure operation of the facility in a safe manner. Details of recordkeeping are delineated in Section 5.6 of Standard Technical Specification NUREG-1433 for General Electric BWR/4 and NUREG-1434 for BWR/6 reactors, NUREG-1432 for Combustion Engineering pressurized water reactors, NUREG-1430 for Babcock and Wilcox pressurized water reactors and NUREG-1431 for Westinghouse pressurized water reactors. Recordkeeping requirements for non-power reactors are specified in their Technical Specifications. Guidance for the technical specifications is delineated in ANSI/ANS 15.1-1990 for non-power reactors.

The records required by Section 50.36(c)(5) include the following:

The following records shall be retained for at least 3 years:

1. All Licensee Event Reports required by 10 CFR 50.73;

2. Records of changes made to the procedures required by Specification 5.4.1; and

3. Records of radioactive shipments.

The following records shall be retained for at least 5 years:

1. Records and logs of unit operation covering time intervals at each power level;

2. Records and logs of principal maintenance activities - inspections, repair, and replacement of principal items of equipment related to nuclear safety;

3. Records of surveillance activities, inspections, and calibrations required by the TS and the Fire Protection Program;

4. Records of sealed source and fission detector leak tests and results; and

5. Records of the annual physical inventory of all sealed source material of record.

The following records are generally required to be retained for the duration of a typical operating license:

1. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the FSAR;

2. Records of new and irradiated fuel inventory, fuel transfers, and assembly burnup histories;

3. Records of radiation exposure for all individuals entering radiation control areas;

4. Records of gaseous and liquid radioactive material released to the environs;

5. Records of transient or operational cycles for those unit components identified in the FSAR;

6. Records of reactor tests and experiments;

7. Records of training and qualification for members of the unit staff;

8. Records of in service inspections performed pursuant to the TS;

9. Records of quality assurance activities required by the Operational Quality Assurance (QA) Manual;

10. Records of reviews performed for changes made to procedures, equipment, or reviews of tests and experiments pursuant to 10 CFR 50.59;

11. Records of the reviews and audits of the QA program required by the TS, includes changes to procedures, programs, systems or equipment that affect nuclear safety, tests or experiments that affect nuclear safety, and changes to TS and the operating license;

12. Records of the service lives of all hydraulic and mechanical snubbers, including the date at which the service life commences, and associated installation and maintenance records;

13. Records of secondary water sampling and water quality;

14. Records of analyses required by the Radiological Environmental Monitoring Program that would permit evaluation of the accuracy of the analysis at a later date (these records should include procedures effective at specified times and QA records showing that these procedures were followed);

15. Records of reviews performed for changes made to the Offsite Dose Calculation Manual and the Process Control Program;

16. Records of pre-stressed concrete containment tendon surveillance; and

17. Records of steam generator tube surveillance.

These records are used by the licensees, the NRC and other Federal, State and local government agencies for the review of a variety of activities in the facility, many of which affect safety. The records are also historical in nature and provide data on which future activities can be based. NRC inspection and enforcement personnel can spot check the records required by 50.36 and 50.36a to determine, for example, if (1) plant modifications were performed satisfactorily, (2) the plant was operated within the TS, (3) personnel training has been kept current, (4) plant effluents have been kept within allowable values, and (5) operating procedures maintained, etc. Because of the multiple-use nature of many of the records, NRC has estimated only the incremental burden.

2. Agency Use of Information

NRC uses this information to determine whether releases of radioactive materials to unrestricted areas during normal reactor operations, including expected operational occurrences, are as low as is reasonably achievable. The agency also uses this information to ensure the protection of the non-radiological environment.

Moreover, safety limits, limiting safety system settings, and limiting control settings, limiting conditions for operation, surveillance requirements, and design features are monitored by the TS for ensuring that the health and safety of the public are not affected adversely from the operation of nuclear power reactors.

3. Reduction of Burden Through Information Technology

There is no legal obstacle to the use of information technology. Moreover, NRC encourages its use; however, at the current time, no responses are submitted electronically.

4. Effort to Identify Duplication and Use Similar Information

There is no source for the required information other than licensees. Some duplication of agency requirements has been identified. The STS were developed to limit duplication, reduce burden, and clarify requirements.

5. Effort to Reduce Small Business Burden

There are only 36 operating and 15 permanently shutdown research and test reactors subject to the provisions of the TS regulations. The burden for research and test reactors cannot be further reduced without potentially affecting the health and safety of the public.

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

If the collection is not conducted or is conducted less frequently, the NRC would not be able to ensure that the health and safety of the public is not adversely affected by the operation of a reactor.

7. Circumstances which Justify Variation from OMB Guidelines

A few special reports such as the Licensee Event Reports, required by 50.36(c), 50.72, and 50.73, the Post Accident Monitoring Report (when required), and the Steam Generator Tube Inspection Report are required in fewer than 30 days to ensure that the NRC promptly responds to situations with the potential to seriously impact public health and safety (also see the Section 29 Supporting Statement). Many of the records involved with this information collection are retained longer than 3 years, some for the life of the plant, to establish patterns or base-line performance to anticipate and assess future trends. These variations are deemed necessary to ensure that the health and safety of the public will not be affected adversely by the operation of the plant.

8. Consultations Outside the NRC

Requests by licensees for changes to TS are noticed in the Federal Register. Public comments or requests for hearing are considered by the NRC.

Notice of opportunity for public comment on this information collection has been published in the Federal Register.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

Proprietary or confidential information is handled in accordance with 10 CFR 2.790.

11. Justification for Sensitive Questions

The subject regulations do not request sensitive information.

12. Estimated Industry Burden and Burden Hour Cost

Reporting Burden

Reporting burden is estimated below. The attached Tables reflect this burden applied to nuclear power plants that have converted to STS, to nuclear power plants that have not converted, to research and test reactors, and to permanently shutdown reactors. While a few plants will not have totally converted to the STS during the clearance period, most plants will have adopted the revised reporting and recordkeeping requirements at the STS through line item improvements. For ease of burden calculation for the clearance period, the burden has been calculated based on an assumption of 100 converted and 4 unconverted operating power plants and 63 converted and 2 unconverted sites.

a. Radioactive Effluent Reports

1) The Exceeding Design Objectives Reports include (a) Exceeding Design Objectives Doses, (b) Inoperable Radwaste Equipment, (c) Dose Contribution from Effluents, (d) Unplanned Radioactive Release, (e) Exceeding 10 CFR Part 20 Release Limits and (f) Exceeding Ci Content in Liquid or Gaseous Tank or Ci Release Rate for Offgas System (BWR), which involve approximately 50 hours each for 3 nuclear power plants (a total of about 150 hours annually). The total number of reports is 3.

2) Annual Effluent Reports for each operating nuclear power plant require 140 hours preparation/report. Therefore, the estimated burden is 140 hours/plant x 104 plants = 14,560 total burden hours. These reports for each permanently shutdown nuclear power plant require 35 hours preparation/report for a total burden of 700 hours (35 hours/plant x 20 plants). The total number of reports is 124 (104 + 20 = 124).

Each research and test reactors licensee submits an Annual Effluent Report. It is estimated that 70 hours are required to prepare each of these 36 reports for operating research and test reactors and approximately 20 hours for 15 permanently shutdown research and test reactors for a total of 2,820 burden hours (70 hours x 36 = 2,520 hours + 20 hours x 15 = 300 hours). The total number of reports is 51 (36 + 15 = 51).

b. Startup Report

Startup Reports are not required to be submitted by nuclear power plants that have converted to the STS. Only nuclear power plants that have not converted and research and test reactors are required to submit this report. Of the 4 unconverted plants, approximately 2 are estimated to submit a report each year. The burden is estimated to be 140 hours/report x 2 reports = 280 burden hours. The total number of reports is 2.

On the average, each research and test reactors submits a Startup Report each year. One hundred (100) hours are estimated for preparation time (100 hours x 36 facilities = 3,600 total burden hours). The total number of reports is 36.

c. Sealed Source Report

Sealed Source Reports are not required to be submitted by plants that have converted to the STS. Unconverted plants, research and test reactors, and permanently shutdown reactors are required to submit this report.

Plants are required to report only those sealed source test results which exceed the removable contamination limit. It is estimated that the burden is 16 hours per plant. Of the 4 unconverted plants, none are estimated to submit a report.

The combined research and test reactors prepare about one Sealed Source Report/year. It is estimated that the burden is 10 hours. The total number of reports is 1.

The combined permanently shutdown power reactors also prepare about one Sealed Source Report/year. It is estimated that the burden is also 10 hours. The total number of reports is 1.

d. Monthly Operating Report

Each operating nuclear power plant submits 12 reports annually, imposing a preparation burden of 50 hours per report (50 hours x 104 plants x 12 reports = 62,400 burden hours). The total number of reports is 1,248 (104 x 12 = 1,248).

Research and test reactors and permanently shutdown reactor licensees do not submit Monthly Operating Reports.

e. Non-Routine Environmental Report

Non-Routine Environmental Reports are not required to be submitted by converted nuclear power plant sites. Only sites that have not converted are required to submit this report.

Each unconverted site submits one report annually and each report requires 50 hours preparation time. Each permanently shutdown site submits one report annually with an estimated preparation time of 5 hours. Thus, the estimated burden at 50 hours x 2 unconverted sites and 5 hours x 13 permanently shutdown sites = 165 burden hours. The total number of reports is 15 (2 + 13 = 15).

research and test reactors do not submit Non-Routine Environmental Reports.

f. Annual Radiological Environmental Operating Report

Operating nuclear power plant licensees will submit this report for an estimated 65 sites in response to this requirement. The burden is estimated to be 1,400 hours/report x 65 sites = 91,000 burden hours. Permanently shutdown nuclear power plant licensees also submit this report for approximately 13 sites at an estimated burden of 700 hours/report = 9,100 hours. The total number of reports is 78 (65 + 13 = 78).

Each operating and permanently shutdown research and test reactors submits this report. It is estimated that the preparation time for each operating research and test reactor is 200 hours/report and approximately 100 hours/report for each permanently shutdown research and test reactor. Therefore, the estimated burden for research and test reactors = 8,700 hours (36 x 200 hours = 7,200 hours + 15 x 100 hours). The total number of reports is 51 (36 + 15 = 51).

g. Annual Environmental Operating Report

Licensees for 65 operating and 13 permanently shutdown nuclear power plant sites are required to submit this report. Each report could require approximately 1,400 hours to prepare for each operating plant site and approximately 140 hours to prepare for each permanently shutdown plant site for a total estimated burden of 92,820 hours (65 sites x 1,400 hours/operating site + 13 sites x 140 hours/permanently shutdown site). The total number of reports is 78 (65 + 13 = 78).

The research and test reactor licensees do not submit Annual Environmental Operating Reports.

h. Annual Radiation Exposure Report

Each operating and permanently shutdown nuclear power plant licensee is required to prepare one report per year. The preparation time is estimated to be 40 hours per report for operating plants and 20 hours per report for permanently shutdown plants. The total annual burden is thus estimated to be 4,560 hours (40 hours/plant x 104 plants + 20 hours/plant x 20 plants). The total number of reports is 124 (104 + 20 = 124).

The estimated burden for operating non-power reactors is 10 hours preparation for each facility and for each permanently shutdown research and test reactor, the preparation time is estimated at 5 hours (10 hours preparation x 36 operating non-power reactors + 5 hours x 15 permanently shutdown research and test reactors = 435 total burden hours). The total number of reports is 51 (36 + 15 = 51).

i. Special Reports

Prior to conversions, and based upon 104 nuclear power plants, approximately 55 special reports/year were submitted (1 report for every 2 plants/year). The industry burden for a special report is estimated at 320 hours per report. Based on the STS, Rev. 2, the converted plants will not submit the ECCS Events Report and the EDG Failure Report (2 out of 5 special reports). It is therefore estimated that the industry burden for converted plants is 3/5 of the prior experience, or approximately 30 reports for 100 converted plants. It is estimated that 2 reports will be submitted from the 4 unconverted plants. Industry burden is estimated to be 10,240 hours (30 reports x 320 hours/report + 2 reports x 320 hours/report). The total number of reports is 32 (30 + 2 = 32).

Operating research and test reactors and permanently shutdown reactors are required to submit special reports on abnormal occurrences. The combined operating research and test reactors/permanently shutdown reactors submit a total of about 4 abnormal occurrence (special) reports/year. It is estimated that 300 hours is the required preparation time for this report (4 reports x 300 hours = 1,200 burden hours). The total number of reports is 4.

j. Core Operating Limits Report (COLR)

With adoption of the COLR, a nuclear power plant licensee no longer needs to submit license amendment requests for the sole purpose of updating cycle-specific parameter limits. These limits are established and documented in the COLR. The analytical methods used to determine the limits are those previously approved by NRC. The limits and analytical methods would need to be determined and documented by licensees in the normal course of power plant operation.

The research and test reactors and permanently shutdown reactors do not submit this report.

Industry Reporting Burden and Cost

Based on the Standard Technical Specifications, Rev. 2 (June 2001), converted plants do not prepare the Startup Report, Sealed Source Leakage Report, Non-Routine Environmental Report, and two of five special reports (ECCS Events Report and EDG Failure Report).

Thus, as reflected above and in Table 1, the total industry reporting burden for nuclear power plants and research and test reactors is 302,750 hours for a total of 1,899 reports. At an hourly rate of $156, the total cost is $47,229,000.

Recordkeeping Burden and Cost

The recordkeeping requirements called for under 10 CFR 50.36(c) impact 104 operating power plants and 36 research and test reactors, and 20 permanently shutdown power plants and 15 permanently shutdown research and test reactors.

The burden annually for an operating power reactor is estimated to be approximately 2,080 hours. One hundred four (104) operating power plants x 2,080 hours totals 216,320 hours.

The burden annually for an operating research and test reactor is estimated to be approximately 80 hours. Thirty-six (36) research and test reactors x 80 hours totals 2,880 hours.

The annual burden for each permanently shutdown power reactor is estimated to be about 208 hours and for each research and test reactor is estimated to be 8 hours for a total of 4,280 hours (20 plants x 208 hours + 15 plants x 8 hours).

The total recordkeeping burden of all licensees is 223,480 hours (216,320 + 2,880 + 4,280) for a total cost of $34,862,880 ($156 x 223,480).

Total Industry Burden and Cost

Total annual burden for all reporting/recordkeeping requirements for TS is expected to be 526,230 (302,750 reporting + 223,480 recordkeeping) hours. The total annual cost to industry at $156 per hour would be $82,091,880.

13. Estimate of Other Additional Costs

Based on the number of pages maintained for a typical clearance, the records storage cost has been determined to be equal to .0004 times the recordkeeping burden cost. Therefore, the records storage cost for this clearance is estimated to be $13,945 (.0004 X223,480 hours x $156)

14. Estimated Annualized Cost to the Federal Government

Estimated hours of staff effort involved for the review of each report is delineated below. The cost for this effort is fully recovered by fee assessment to NRC licensees pursuant to 10 CFR Parts 170 and/or 171.

a. Radioactive Effluent Report

1) Exceeding Design Objectives Reports - combined, the 104 plants submit 3 reports/year. Forty (40) staff hours are estimated to review each report for a total of 120 staff review hours (40 hours x 3 reports = 120 staff hours review).

The research and test reactors do not submit a report under Exceeding Design Objectives but would include such under special reports.

2) Annual Effluent Reports - each operating and permanently shutdown nuclear power plant will submit one report per year. Forty (40) hours are estimated to review each report/operating plant and 10 hours for each report/permanently shutdown plant (40 hours/plant x 104 plants + 10 hours/plant x 20 plants = 4,360 total review hours).

Each operating and permanently shutdown research and test reactor submits an Annual Effluent Report each year. About one hour staff time is required to review this report for operating research and test reactors, and about .25 hours for permanently shutdown research and test reactors (39.75 hours total review for all research and test reactors).

b. Startup Reports

Startup Reports are not required to be submitted by nuclear power plants that have converted to the STS. Only nuclear power plants that have not converted and research and test reactors are required to submit this report. Of the 4 unconverted plants, approximately 2 are estimated to submit this report. The Federal staff review burden is estimated to be 80 hours/report x 2 reports = 160 burden hours.

All research and test reactors submit about one Startup Report/year on average. Eighty (80) staff hours are required to review each report (80 hours x 36 facilities = 2,880 total review hours).

c. Sealed Source Reports

Sealed Source Reports are not required to be submitted by plants that have converted to the STS. Plants that have not converted are required to submit this report. Research and test reactors submit about one report/year, as do permanently shutdown reactors.

Of the 4 unconverted plants, none is estimated to submit a report.

Combined, the research and test reactors submit about one report/year. The average staff review time is 10 hours.

Combined, the permanently shutdown reactors also submit about one report/year. The average staff review time is 8 hours.

d. Monthly Operating Report

Each operating nuclear power plant submits 12 reports annually. The staff assesses each of these reports in approximately 8 hours (8 hours x 12 reports/plant x 104 plants = 9,984 total review hours).

The operating research and test reactors and permanently shutdown reactors do not submit Monthly Operating Reports.

e. Non-routine Environmental Report

Non-routine Environmental Reports are not required to be submitted by nuclear power plant sites that have converted to the STS. Only nuclear power sites that have not converted are required to submit this report.

Of the unconverted sites, one report is submitted annually for each site. The staff's effort to assess these reports is usually about 40 hours each. Each permanently shutdown site also submits one report annually, and the staff's review takes about 20 hours for each report (40 hours/site x 2 unconverted sites + 20 hours/site x 13 permanently shutdown sites = 340 total review hours).

Research and test reactors do not submit Non-Routine Environmental Reports. These facilities submit environmental reports under Annual Radiological Environmental Operating Reports or special reports.

f. Annual Radiological Environmental Operating Report

This report will be submitted for 65 operating nuclear power plant sites and for 13 sites with permanently shutdown power plants. It is estimated that approximately 173 hours will be needed to review this report for each of 65 sites, and approximately 4 hours per report for 13 sites. Therefore, the staff burden is estimated to be 11,297 total review hours (173 hours/site x 65 sites + 4 hours/site x 13 sites).

For operating and permanently shutdown research and test reactors, each of the 36 operating and 15 shutdown facilities submit a report. About 4 hours staff review are required to review each of 36 reports and about 1 hour of staff review is required to review each of 15 reports (4 hours x 36 reports + 1 hour x 15 reports = 159 hours total review/year).

g. Annual Environmental Operating Report

The report, in general, contains non-radiological environmental effects of low safety significance and low impact (e.g., cooling tower blowdown) and therefore, the NRC does not expend a significant effort to review this report. Thus, the Federal burden associated with this report is small. Industry's burden is higher because of the licensee's time to prepare the report.

Research and test reactors do not submit Annual Environmental Operating Reports.

h. Annual Radiation Exposure Report

It is estimated that the staff will expend 30 hours assessing each report for each operating nuclear power plant licensee. One hundred and four licensees will respond annually. Staff will also expend 15 hours assessing reports for each of 20 permanently shutdown power plants. (Thus, the burden is expected to be 30 hours/plant x 104 plants + 15 hours/plant x 20 plants = 3,420 total review hours.)

For operating and permanently shutdown research and test reactors, about 1 hour per operating facility and one-half hour per shutdown facility are required to assess this report for a total of about 43.5 hours (1 hour/plant x 36 plants + .5 hour/plant x 15 plants).

i. Special Reports

It is estimated that 42 reports will be submitted annually by operating power plants. The staff burden for special reports is estimated at 160 hours per report. Therefore, the staff burden is estimated to be 6720 hours (42 reports x 160 hours/report).

Operating research and test reactors and permanently shutdown reactors are required to submit abnormal occurrence (special) reports. On the average, operating research and test reactors submit a total of two abnormal occurrence (special) reports a year that require about 200 staff hours for review and assessment of each report. Permanently shutdown reactors also submit a total of two abnormal occurrence (special) reports a year. These require about 200 staff hours for review and assessment (4 reports x 200 hours = 800 total review hours).

j. Core Operating Limits Report (COLR)

The NRC no longer needs to review and approve license amendments related to the core that varies from cycle to cycle, that can be determined through an approved process, that include a reload analysis.

A reload analysis has to be done for each cycle and TS values, if they change, have to be developed; this is included in the reload analysis, that is reviewed by NRC. Only specific numbers from the reload analysis and specific TS numbers are included in the COLR report. Therefore, the NRC does not expend any significant review time for the COLR report.

Federal Burden and Cost for Nuclear Power Plants and Non-Power Reactors

Based on the Standard Technical Specifications (STS), Rev. 2 (June 2001), the converted plants do not submit the Startup Report, Sealed Source Leakage Report, Non-Routine Environmental Report, and two of five special reports (the ECCS Events Report and the EDG Failure Report).

The NRC does not expend a significant effort to review either the converted or unconverted plant's Annual Environmental Operating Report or the Core Operating Limits Report (COLR).

Thus, as reflected above and in Table 2, the total annual Federal burden for operating and permanently shutdown nuclear power plants and research and test reactors is 40,341.25 hours. At an hourly rate of $156, the total cost to the Federal government is $6,293,235.

15. Reasons for Changes in Burden or Cost

The burden per report has remained constant. However, the overall industry hourly burden has decreased from 529,627 hours to 526,230 hours, primarily based on licensees' conversion to STS, which has eliminated the requirement to file some reports. However, the dollar estimate is slightly higher due to the increased hourly rate. Also, one additional shutdown plant has been added.

16. Publication for Statistical Use

The collected information is not published for statistical purposes.

17. Reason for Not Displaying the Expiration Date

The requirement is contained in a regulation. Amending the Code of Federal Regulations to display information that, in an annual publication, could become obsolete would be unduly burdensome and too difficult to keep current.

18. Exceptions to the Certification Statement

None.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.

Attachments:
Tables 1-2

Table 1
Industry Reporting Burden for Nuclear Power Plants
and Research and Test Reactors

	No. Plants/Sites Affected						Burden for Each Type						
Report	**All Power Types**	**Conv.**	**Non-Conv.**	**Research & Test Reactors**	**Shutdown Power**	**Shutdown Research & Test Reactors**	**All Power Types**	**Conv.**	**Non-Conv.**	**Research & Test Reactors**	**Shutdown Power**	**Shutdown Research & Test Reactors**	**Total Burden**
Exceed Design	3						50						150
Annual Effluent	104			36	20	15	140			70	35	20	18,080
Start-Up			2	36					140	100			3,880
Sealed Source			0	1	1	*				10	10	*	20
Monthly Operating	104						600						62,400
Non-Routine Environmental			2		13				50		5		165
Annual Radiological	65			36	13	15	1,400			200	700	100	108,800
Annual Environmental Operating	65				13		1,400				140		92,820
Annual Radiation Exposure	104			36	20	15	40			10	20	5	4,995
Special Report		30	2	2	2	*		320	320	300	300	*	11,440
Core Operating Limits	0	0	0	0	0	0							0
Total Burden													302,750

* Included under Research and Test Reactors

Table 2
Federal Reporting Burden for Nuclear Power Plants
and Research & Test Reactors

	No. Plants/Sites Affected						Burden for Each Type						
Report	**All Power Types**	**Conv.**	**Non-Conv.**	**Research & Test Reactors**	**Shutdown Power**	**Shutdown Research & Test Reactors**	**All Power Types**	**Conv.**	**Non-Conv.**	**Research & Test Reactors**	**Shutdown Power**	**Shutdown Research & Test Reactors**	**Total Burden**
Exceed Design	3						40						120.00
Annual Effluent	104			36	20	15	40			1	10	.25	4,399.75
Start-Up			2	36					80	80			3,040.00
Sealed Source			0	1	1	*				10	8	*	18.00
Monthly Operating	104						96						9,984.00
Non-Routine Environmental			2		13				40		20		340.00
Annual Radiological	65			36	13	15	173			4	4	1	11,456
Annual Environmental Operating	65				13		0				0		0
Annual Radiation Exposure	104			36	20	15	30			1	15	.50	3,463.50
Special Report	42			2	2	*	160			200	200		7,520
Core Operating Limits	0	0	0	0	0	0							0
Total Burden													40,341.25

* Included under Research & Test Reactors