

FINAL SUPPORTING STATEMENT
FOR
CODES AND STANDARDS

10 CFR 50.55a

DESCRIPTION OF THE INFORMATION COLLECTION

The NRC regulations in 10 CFR 50.55a incorporate by reference Division 1 rules of Section III, "Rules for Construction of Nuclear Power Plant Components," and Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&PV Code); and the rules of the ASME "Code for Operation and Maintenance of Nuclear Power Plants" (OM Code). These rules of the ASME B&PV and OM Codes set forth the requirements to which nuclear power plant components are designed, constructed, tested, repaired, and inspected. The ASME Codes contain information collection requirements that impose a recordkeeping and reporting burden for the plant owners. In general, the records prepared are not collected by the NRC, but are retained by the licensee to be made available to the NRC, if requested, at the time of an NRC audit.

The information collection requirements imposed by 10 CFR 50.55a through incorporation by reference of the ASME Codes apply to activities associated with the construction and operation of nuclear power plants. The actual number of plants affected by the various ASME Code editions and addenda incorporated by this regulation, and thereby affected by the information collection requirements, is dependent on a variety of factors. These factors include whether the application is for construction, operation, the class and type of components involved; the date of the design certification, combined license, or construction permit application; the schedule of the inservice inspection (ISI) and inservice testing (IST) programs; and whether the plant licensee voluntarily elects to implement updated editions and addenda of the ASME Code. Section III of the ASME B&PV Code applies to the design and construction of new plants. Section XI of the ASME B&PV Code applies to the inservice inspection and repair and replacement activities in operating plants. Section XI of the ASME B&PV Code and the ASME OM Code apply to operating plants and plants performing preservice examinations and testing in preparation of initial operations. At present, there is one nuclear plant under construction under the 10 CFR Part 50 process, four nuclear power plants are under construction under the 10 CFR 52 process, and 104 that are licensed to operate. The following analysis of information collection requirements determines the ASME B&PV Code, Section III, Section XI, and the ASME OM Code burden for 104 operating plants, including the burden associated with repair and replacement activities and the five new plants currently being constructed (one 10 CFR Part 50 and four 10 CFR Part 52) where deemed applicable. At the present time, four new plants have been issued a combined license under the 10 CFR part 52 process, one additional reactor units are expected to begin construction during the clearance period (July 1, 2013 to June 30, 2016). The five new reactor units under construction will be subject to the recordkeeping requirements in Section III, the reporting requirements in Section III and certain record keeping and reporting requirements in Section XI as necessary for preservice examination and testing during this clearance period.

Section 50.55a specifies that the ASME Code edition and addenda to be applied to reactor

coolant pressure boundary, and Quality Group B and Quality Group C components must be determined by the provisions of paragraph NCA-1140 of Subsection NCA of Section III of the ASME B&PV Code. NCA-1140 specifies that the Owner (or his designee) shall establish the ASME Code edition and addenda to be included in the Design Specifications, but that in no case shall the Code edition and addenda dates established in the Design Specifications be earlier than three years prior to the date that the nuclear power plant construction permit application is docketed. NCA-1140 further states that later ASME Code editions and addenda may be used by mutual consent of the Owner (or his designee) and Certificate Holder. It is permissible for individual operating plants to implement improved rules in later editions and addenda on a voluntary basis, but unless they make that choice, there is no additional paperwork burden associated with incorporating later Section III editions and addenda than that to which they are committed. New plants would be required to construct the facility in accordance with applicable Section III edition and addenda.

Owners of nuclear power plants are required to establish ISI and IST programs in accordance with the requirements of the latest edition and addenda of the ASME Code that have been incorporated by reference into 10 CFR 50.55a as of 12 months prior to the date of issuance of the operating license under the 10 CFR Part 50 process or 12 months before the date scheduled for initial loading of fuel under a combined license under the 10 CFR Part 52 process. Licensees are required to update their ISI and IST programs in accordance with the latest edition and addenda of ASME Code that have been incorporated by reference as of 12 months prior to the start of the next 120-month inspection and testing intervals. Conservatively, the total number of plants that may ultimately be required to implement a particular ASME Code edition and addenda is 104.

Section III, Section XI, and the OM Code specify certain recordkeeping and reporting requirements by the plant owners. These requirements are generally identified in Section III Subsection NCA and Section XI Article IWA-6000 of the ASME B&PV Code, and in Subsection ISTA of the ASME OM Code. In addition, specific technical requirements may result in an additional information collection burden. The following analysis of information collection burden evaluates all general information collection activities, any significant additional burden that may be imposed as a result of specific technical requirements, and information collections imposed by the 2007 Edition through the 2008 Addenda of the ASME Code Section III and XI and the 1995 Edition through the 2006 Addenda of the OM Code, and the conditions imposed on the Code specified directly in 50.55a.

Recordkeeping Requirements

Section III

Section III, Subsection NCA specifies recordkeeping requirements for Class 1 (Subsection NB), Class 2 (Subsection NC), and Class 3 (Subsection ND) components. These provisions require the Owner to:

- NCA-3230: Owner's Certificate; AIA Agreement. Prepare and submit to the ASME necessary forms to obtain an Owner's Certificate of Authorization, and to obtain a written agreement with an Authorized Inspection Agency (AIA), prior to application, to provide inspection and auditing services (NCA-3230). This activity by the Owner occurs after receipt of notification from the NRC that an application for a Construction Permit or Combined Operating License has been docketed. The information to be supplied by the Owner when making an application is identified in the forms issued by the ASME. It is

estimated that completion of these information forms takes 80 person-hours per plant (p-hours/plant). Four plants have been considered to be responsible for this recordkeeping process during this clearance period or 1.3 plants per year. (Because this is submitted to the ASME, it is considered a 3rd Party Disclosure requirement and appears on the 3rd Party Table.)

- NCA-3280: Owner's Data Report. Prepare and file ASME Form N-3, "Owner's Data Report for Nuclear Power Plant Components" (NCA-3280). Information to be included on this form identifies the Owner and location of the plant, and the nuclear vessels, piping, and pumps and valves installed within the plant. Information required to identify each component includes certificate holder and serial number, system identification, state number, national board number, and year built (NCA-3280). Form N-3, which is provided by the ASME, expedites the documentation of this information. It is estimated that the time to obtain the necessary information and to document that information on Form N-3 is 400 p-hours/plant. The preparation of four Form N-3s is anticipated during this clearance period or 1.3 Form N-3s per year. (one-time recordkeeping)
- NCA-3260: Design Report. Document that a review of the Design Report has been performed to verify that all Design and Service Loadings have been evaluated and meet the acceptance criteria (NCA-3260). It is estimated that review of the Design Report, with documentation of any areas that need to be revised, takes 2,000 p-hours/plant. Four reviews are expected during this clearance period or 1.3 design reports per year. (one-time recordkeeping)
- NB/NC/ND-3220: Overpressure Protection Report. Provide and file the Overpressure Protection Report required for the nuclear protection system (NCA-3220 (m) and (n)). This report includes the overpressure protection requirements for each component or system, including location of the overpressure protection devices, identification of the edition and addenda, system drawings, range of operating conditions, and an analysis of the conditions that give rise to the maximum pressure relieving requirements (NB/NC/ND-7200). It is estimated that the time associated with preparing the Overpressure Protection Report is 2,000 p-hrs, which is comprised of 1,600 p-hours associated with obtaining and developing the necessary information and 400 p-hrs for collating the information into the necessary report. Four such reports will be prepared in this clearance period or 1.3 such reports per year during this clearance period. (one-time recordkeeping)
- Quality Assurance Program. Document a Quality Assurance Program, and file copies of the Quality Assurance Manual with the Authorized Inspection Agency (NCA-8140). This documentation includes programs for surveying, qualifying, and auditing suppliers of subcontracted services (e.g., nondestructive examination contractors, material suppliers, and material manufacturers). Although Section III identifies the need for a documented Quality Assurance (QA) program, the primary NRC requirement for an overall QA program is contained in 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." (See Section 15 supporting statement.) Therefore, no additional information collection burden is imposed on Owners by the quality assurance provisions of Section III which are incorporated by reference into Section 50.55a.

- Design Specifications. Provide, correlate, and certify Design Specifications (NCA-3250). This requires that the component Design Specification be provided in sufficient detail to form the basis for fabrication in accordance with the rules of Section III. The Design Specifications shall be certified to be correct and complete and to be in compliance with the requirements of NCA-3250 by one or more competent Registered Professional Engineers (NCA-3255). Although this is a requirement of Section III, its incorporation by reference in Section 50.55a does not impose an additional information collection burden on the Owner. Preparation and certification of design specifications for construction of engineered structures is a routine and necessary engineering practice, which occurs with or without the incorporation of this Section III provision into Section 50.55a.
- Record retention periods (no burden). Designate records to be maintained and provide for their maintenance (NCA-3290). Although Section III identifies the need for specific record retention, the primary NRC requirement for record retention is specified in 10 CFR 50, Appendix B, Criterion XVI (Quality Assurance Records). (See Section 15 supporting statement.) Therefore, no additional information collection burden is imposed on Owners by the record retention provisions of Section III which are incorporated by reference into Section 50.55a.

Section XI

Section XI, Subsection IWA specifies recordkeeping requirements for ISI of Class 1 (Subsection IWB), Class 2 (Subsection IWC), Class 3 (Subsection IWD), Class MC (Subsection IWE), and Class CC (Subsection IWL) components. These recordkeeping requirements require the Owner to:

- Records of Exams: NIS-1 Forms. Prepare records of the preservice and inservice examinations of Class 1 and Class 2 pressure retaining components and their supports on ASME Form NIS-1, "Owner's Report for Inservice Inspections." Information to be included on Form NIS-1, which expedites documentation of the required information, includes identification of the component (i.e., name of component, name of manufacturer, manufacturer serial number, state number, national board number), examination dates, the applicable Section XI edition and addenda, and abstracts of the examination and tests, including results, and any corrective measures (IWA-6230).

Section XI examinations are performed on the basis of a 10-year interval (i.e., all components to be examined, are examined within 10 years), with examinations distributed over three 40-month periods. For the purpose of this burden calculation, it has been estimated that it takes 160 p-hours to obtain and document the information required on Form NIS-1 for the examinations during one 40-month examination period at one plant. This averages to approximately 50 p-hrs/year/plant, or a total industry recordkeeping burden of 5,350 p-hrs/year (107 plants X 50 p-hrs/year/plant). Three plants currently under construction were included here because they will be responsible for completing the Form NIS-1 for preservice exams during this clearance period. Voluntary implementation of ASME Code Case N-532, Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as required by IWA-4000 and IWA-6000, provides a less burdensome recordkeeping alternative. These records must be prepared following activities conducted during a refueling outage (approximately once every 18 months). It is estimated that the alternative recordkeeping associated with Code Case N-532 reduces burden by 10 p-hours per licensee annually. Thus, the annual reduction in

industry recordkeeping burden associated with the Code Case N-532 is 1070 p-hours/yr (107 plants X 10 p-hours). This results in a total recordkeeping burden of 4,280 p-hours/yr (5,350 p-hours/yr -1,070 p-hours/yr).

- Records of Repairs: NIS-2 Forms. Document the repairs and replacements in the inservice inspection summary reports on existing Form NIS-2, "Owner's Report for Repair or Replacements." Information to be included on ASME Form NIS-2 includes identification of the component (i.e., name of component, name of manufacturer, manufacturer serial number, national board number, year built) and system, the applicable construction code and Section XI edition and addenda, repair organization, and a description of the work performed (IWA-6350).

Form NIS-2 expedites documentation of the required information. For the purpose of this burden calculation, it has been estimated that, on the average, 50 components are repaired each year by each plant in accordance with Section XI rules. It is estimated that it takes 2 hours to document the repair of an individual component on Form NIS-2. This results in a recordkeeping burden associated with this documentation of 100 p-hours/year/plant, or a total industry recordkeeping burden of 10,500 p-hrs/year (105 plants X 100 p-hrs/year/plant). The plant currently under construction in the Part 50 process was included here because they will be responsible for completing the Form NIS-2 for repair/replacement activities on components previously constructed to Section III requirements during this clearance period.

- ISI and IST Plans and Schedules. Prepare plans and schedules for preservice and inservice examination and tests (IWA-6210). It is estimated that the preparation of the plans and schedules for preservice and inservice examination requires 1,600 p-hours, and the plans and schedules for preservice and inservice testing requires 400 p-hours. Assuming that, on average, 10% of the plants prepared plans and schedules for examination and testing (plans and schedules are established for 10 year intervals), this would result in an industry recordkeeping burden of 21,800 p-hrs/year [(1,600 + 400) p-hrs/plant x (0.10) (109) plants/year]. The plants currently under construction were included here because they will be responsible for completing plans and schedules for preservice exams during this clearance period.
- Records of Component Examination/Tests. Record the results of preservice and inservice examinations of components performed in accordance with Section XI, IWB/IWC/IWD/IWF-2000. Specific requirements for examinations are tabulated in IWB/IWC/IWD/IWF-2500-1 for components such as vessels, piping and their supports. A record of each examination includes the component identification, date of examination, specific Section XI requirement, type of examination (e.g., volumetric, surface, visual), equipment settings, and record of any indications. The examinations are distributed over a 10-year examination interval (three 40-month periods) with examinations being performed at, on average, 18-month refueling outages (i.e., two per clearance period). Therefore, on average, approximately 1/10 of the components are examined/year. The recordkeeping burden associated with these examinations is estimated at 1 hour/component. Based on an estimate of 4,000 components/plant, it takes 400 p-hrs/year/plant (4000 components/10 x 1 p-hour/component) to document the testing of these components for each plant, which results in a total industry recordkeeping burden of 43,600 p-hours/year (400 p-hrs/year/plant x 109 plants). The plants currently under construction were included here because they will be responsible

for completing preservice exams and tests during this clearance period. Subsequent to the initial time estimate for this requirement, a number of rulemakings have incorporated by reference changes that have increased by burden by 3 hours per plant per year for PWRs and 4 hours per plant for BWRs.¹ Therefore the record keeping burden associated with the records associated with the examinations results in a total industry recordkeeping burden of 43,962 p-hours/year (403 p-hrs/year/plant x 74 PWR plants + 404 p-hrs/year/plant x 35 BWR plants).

- Develop Containment ISI plan. The 1996 incorporation by reference of Subsections IWE and IWL into 10 CFR 50.55a requires licensees to develop an inservice inspection (ISI) plan for these subsections, implement that ISI plan, and then develop and implement 10-year updates to that ISI plan. The development of the initial ISI plan is estimated to average 4000 p-hrs for a new licensee. All 104 operating plant licensees have completed the development of the ISI plan. The five plants currently under construction will need to develop this plan during this clearance period for an industry burden of 20,000 p-hrs (4000 p-hrs x 5). This results in an annualized burden of 6,667 p-hrs/yr (4000 p-hrs x 5 / 3years). (one-time recordkeeping)
- Implement Containment ISI Plan. It is estimated that recordkeeping for implementing the Containment ISI plan requires 600 p-hrs/yr for each plant performing ISI of the containment. Assuming that on the average 10 plants per year perform ISI of the containment, this results in an industry burden of 6,000 p-hrs/yr. This burden estimate was amended through a series of rulemakings to 598 hours per p-hrs/yr². Every 10 years each licensee must update the ISI plan. Update of the plan is estimated to average 180 p-hrs per plant. Assuming that 10 plants per year update their containment

¹ IWD-2420 was modified to require successive examination requirements for Class 3 components. Recordkeeping for these exams is estimated to be 8 p-hrs per plant per year. The industry recordkeeping burden is estimated to increase by 872 p hrs/yr (8 p hrs/plant-yr x 109 plants). Revisions to IWF 2430, IWF-2510, and Table IWF-2500-1 - allows for the first time representative sampling (i.e., grouping) which reduces the number of supports required to be examined by over 100. Even though the adoption of representative sampling is considered an improvement in that there is more assurance that defective supports are detected, the ASME added the provisions of IWF-2430(c) and (d) require that if the examinations performed under IWF-2430(a) and (b) result in the detection of a large number of defective supports, additional examinations may be required. The reduction in the number of examinations attained through sampling is estimated to save 12 p-hrs in recordkeeping per plant per year. Records associated with possible additional examinations could add 8 p hrs per plant per year which gives a net decrease of 4 p-hrs in recordkeeping per plant per year associated with these exams. The estimated recordkeeping burden is estimated to decrease by 436 p hrs/yr (4 p hrs/plant yr x 109 plants). Paragraph IWA-5242 of Section XI was revised to eliminate the requirement to remove insulation from bolted connections in borated systems when performing a system leakage test provided that the bolting is resistant to boric acid corrosion. This revision reduces recordkeeping because records for the installation/removal of insulation and the installation/removal of scaffolding to support the removal/installation of insulation are no longer required when bolting resistant to boric acid corrosion is installed in a borated system. It is estimated that this revision will eliminate the need to remove/install insulation and scaffolding for 10 bolted connections for each pressurized water reactor each 10-year ISI interval, and that it takes 1 p-hour to complete the recordkeeping for each bolted connection. The annual decrease in industry recordkeeping burden is estimated to be 74 p-hours (10 bolted connections x 74 units x 1 p-hour/connection □ 10 years).

² Table IWE 2500 1, Category E-G, Item E8.20 was modified to eliminate the torque test of bolted connections which was contained in earlier editions and addenda. It is estimated that the recordkeeping burden decreases approximately 2 p hours per plant because testing has been eliminated. It is estimated that 20 plants will implement this new requirement during the clearance period. The decrease in industry recordkeeping burden is estimated to be 13 p hours/yr (2 p-hours x 20 plants/3 years). Paragraph IWL-5210 has been modified to eliminate the requirement to perform a containment pressure test. It is estimated that a total of 2 containment pressure tests are eliminated in a 10-year period (total for industry), and it takes 100 p-hours to complete the recordkeeping for each containment pressure test. The annual decrease in industry recordkeeping burden is estimated to be 20 p-hours (2 pressure tests x 100 p-hours/pressure test / 10 years). The total industry recordkeeping burden associated with implementing the Containment ISI Plan therefore is 5977 p-hrs/yr (6,000 p-hrs/yr - 13 p hours/yr – 20 p hours/yr).

ISI plans, this results in an industry burden of 1,800 p-hrs/yr. The total recordkeeping burden is estimated to be 7,780 p-hrs/yr ((598 p-hrs/yr + 180 p-hrs/yr) x 10 plants).

The following additional significant recordkeeping requirements result from implementation of specific Section XI technical requirements:

- Reactor Vessel Exam. The 1995 Edition up to and including the 2007 Edition through the 2008 Addenda of Section XI requires examination of essentially 100% of the length of all reactor vessel shell welds during the 2nd, 3rd, and 4th inspection intervals. (Section XI has required examination of essentially 100% of the length of reactor vessel shell welds during the 1st interval since the 1974 Edition as modified by addenda through the 1975 Addenda.) Although the data from these examinations is generally automatically recorded and processed, it is estimated that about 200 p-hrs is required to assemble, review, and summarize the additional data that is collected once during each 10-year inspection interval. On average, about 10 percent of all operating plants perform the reactor vessel shell weld examinations each year. Therefore, the additional recordkeeping burden per year resulting from the specified reactor vessel examination is estimated to be 2,080 p-hrs/year (200 p-hrs/plant x [.10 x 104] plants/year).
- Qualification of NDE personnel. Section XI, Mandatory Appendix VII, "Qualification of Nondestructive Examination Personnel for Ultrasonic Examination," specifies requirements for the training and qualification of ultrasonic nondestructive examination (NDE) personnel in preparation for employer certification to perform NDE. Appendix VII specifies requirements for qualification records. These records include those for recertification (e.g., name of individual, qualification level, educational background and experience, statement indicating satisfactory completion of prior training, record of annual supplemental training, results of vision examinations, and current qualification examination results). It is estimated that it takes 65 p-hrs/plant/year to prepare and maintain the specified training records. This results in a yearly recordkeeping industry burden of 6,760 p-hrs/year (109 plants x 65 p-hr/plant/year).
- ASME QAI-1 Specification. Table IWA-1600-1 references a revised ASME QAI-1 specification which requires that Authorized Inspection Agencies be accredited by ASME. It is estimated that the records associated with this requirement results in an average of 10 p-hrs per plant per year. The total industry recordkeeping burden is estimated to be 1,040 p-hrs/yr (10 p-hrs/plant-yr x 109 plants). This estimate is based on discussion with an authorized nuclear inspection (ANI) organization, but the impact has been assigned to the owners who ultimately pay for ANI services.
- Visual examinations. IWA-2210 describes visual examination requirements and requires calibration records for light meters and test charts. It is estimated that the records associated with these requirements result in an average of 1 p-hr per plant per year. The industry recordkeeping burden is estimated to be 109 p-hrs/yr (i.e., 1 p-hr/plant-yr x 109 plants).
- Near-distance test chart. IWA-2322 requires that, before the near-distance test chart is used for the first time, an optical comparator or other suitable instrument be used to verify the height of a representative lower case character. It is estimated that the records associated with this requirement result in an average of 2 p-hrs at each plant once a licensee updates its ISI program to the 1991 Addenda or later edition and addenda. It is estimated that 20 plants will implement this new requirement during the 3-

year clearance period. The industry recordkeeping burden is estimated to be 13.4 p-hrs/year (i.e., 2 p-hrs/plant x 20 plants/3 years).

- Repair plans. IWA-4150 requires repair/replacement activity details to be documented in repair/replacement plans. It is estimated that the records associated with this requirement results in an average of 1 p-hr for each repair operation, and an average of 100 repair plans per plant per year is assumed. Therefore, the industry recordkeeping burden is estimated to be 10,500 p-hrs/yr (100 p-hrs/plant/yr x 105 plants).
- PWR Steam Generator Sleeving. IWB-4720 requires an estimated 4 p-hrs for records for each pressurized water reactor (PWR) plant in conjunction with each series of steam generator sleeving operations during any refueling outage. The records include the Sleeving Procedure Specification, procedure qualification, performance qualification for personnel, location records, and examination records. If sleeving operations are performed an average of three times each ten-year interval for each PWR plant, the industry recordkeeping burden is estimated to be 83 p-hrs/yr (69 PWR plants x 3 times/10 years x 4 hrs each).
- Qualification records. Appendix VIII, Article VIII-5000 requires that qualification records be kept. The records are generated when the qualification activities are performed. A conservative estimate is that ten percent of the total initial Appendix VIII qualification costs per plant applies to records. The costs are equivalent to an average per plant total of 260 p-hrs for Appendix VIII records. The recordkeeping burden, estimated to be a one-time total of 27,040 p-hrs or an annualized 9,013 hours (260 p-hrs/plant x 109 plants/3), has been completed for the 104 operating plants. No new procedure qualifications for the plants under construction are expected during the clearance period. (one-time recordkeeping).
- Code Case N-513-2, Evaluation Criteria for Temporary Acceptance of Flaws in Class 3 Piping, permits licensees to voluntarily adopt provisions for temporary acceptance of a flaw in certain piping. Licensees are required to perform a flaw evaluation and a flaw growth analysis to establish the allowable time for temporary operation. Periodic examinations of no more than 90-day intervals shall be conducted to verify the analysis. It is estimated that each licensee applies the periodic examination provisions of Code Case N-513 twenty times each year. The increase in industry recordkeeping burden is estimated to be 2,080 p-hrs/yr (20 occurrences x 1 p-hr/flaw evaluation-flaw growth analysis x 104 plants).
- Code Case N-523-2, Mechanical Clamping Devices for Class 2 and 3 Piping, allows the use of mechanical clamping devices for Class 2 and Class 3 piping. Licensees are required to prepare a plan for monitoring defect growth, and perform periodic examinations of no more than 90-day intervals to verify the analysis. It is estimated that each licensee applies these periodic examination provisions 20 times each year. The increase in industry recordkeeping burden is estimated to be 2080 p-hrs/yr (20 occurrences x 1 p-hr/flaw evaluation-flaw growth analysis x 104 plants).
- Welding/Brazing Qualification Records. It is assumed that the recordkeeping associated with the current ASME Code requirement is that each licensee performs procedure qualifications 6 times in each 3-year clearance period, and that the recordkeeping associated with each procedure qualification is 8 p-hours. Therefore, there are 109 reactors X 6 procedure qualifications ÷ 3 years = 218 procedure qualifications

performed each year. The industry recordkeeping burden for the current ASME Code requirement is 218 procedure qualifications/year X 8 p-hours per procedure qualification = 1,744 p-hours/year. Voluntary implementation of ASME Code Case N-573, Transfer of Procedure Qualification Records Between Owners, provides a less burdensome recordkeeping alternative for qualification records of welding and brazing procedures related to repair and replacement activities. It is estimated that the alternative recordkeeping associated with Code Case N-573 reduces the number of procedure qualifications performed each year by half. Thus, the industry decrease in recordkeeping burden is 872 p-hrs/yr (1,744 p-hours/2). The resulting total burden associated with the welding/brazing qualifications is 872 p-hrs/yr (1,744 p-hours/year - 872 p-hrs/yr). The plants currently under construction were included here because they will be responsible for completing welding/brazing procedure qualifications during this clearance period.

OM Code

- Records of Pump Tests. Record the results of the preservice and inservice pump tests in accordance with OM Code Subsection ISTB, which provides rules for the preservice and inservice testing of pumps to assess the operational readiness of certain centrifugal and positive displacement pumps. The inservice tests, like the inservice examinations, are established for a 10-year interval, but the testing is performed on a quarterly basis. A record of each test includes the pump identification, date of test or examination, reason for test or examination, test or examination procedure used, values of measured parameters, identification of test equipment used, calibration records, comparisons with allowable ranges of test and examination values and analysis of deviations, and requirements for corrective action. It is estimated that it takes 80 p-hrs to document the testing of the quarterly pump tests for each plant, which results in a yearly burden for each plant of 320 p-hrs. This results in a total industry recordkeeping burden of 33,280 p-hrs/yr (320 p-hrs/yr x 104 plants).
- Records of Valve Tests. Record the results of the preservice and inservice valve tests in accordance with OM Code Subsection ISTC, which provides rules for the preservice and inservice testing of valves to assess the operational readiness of certain valves and pressure relief devices. The inservice tests, like the inservice examinations, are established for a ten-year interval, but the testing is performed on a frequency, depending on the valve, from quarterly to every ten years. The types of records to be retained for valve testing are similar to those identified above for pump testing. Because of the greater number of valves tested, it is estimated that it takes 200 p-hrs to document the periodic valve tests for each plant, which results in a yearly burden for each plant of 800 p-hrs. This results in a total industry recordkeeping burden of 83,200 p-hrs/yr (800 p-hrs/yr x 104 plants).
- Pump Pressure Instruments. Table ISTB 4.7.1-1 (1994 Addenda) requires more accurate pressure instruments for the comprehensive and preservice pump tests. Records are required for the procurement and periodic calibration of these instruments. The burden is estimated at one p-hr per plant per instrument per year. Assuming three instruments per plant, it is estimated that the industry recordkeeping burden is 312 p-hrs/yr (3 instruments x 1 p-hr/yr x 104 plants).
- Alternative Rules for Testing Valves. Code Case OMN-1, Alternative Rules for

Preservice and Inservice Testing of Certain Electric Motor-Operated Valve Assemblies in Light Water Reactor Power Plants, requires that the adequacy of the initial test interval for certain electric operated valve assemblies be evaluated between 5 and 6 years after implementation of Code Case OMN-1. The Code Case is a voluntary alternative, and this is a one-time burden. Assuming that half of the plants choose to implement the Code Case, the estimated industry recordkeeping burden is 5,200 p-hrs/yr (1 p-hr/evaluation x 100 motor-operated valves x 52 plants) (one-time recordkeeping starting approximately November 22, 2004).

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- Concrete Containment ISI Plans. The recordkeeping burden for 10 CFR 50.55a(b)(2)(viii)(B), (C), (D), and (E), which are modifications to Subsection IWL, and Section 50.55a(b)(2)(ix)(A) which is a modification to Subsection IWE, is estimated to average 12 p-hrs/yr per plant. Assuming that 10 plants per year update their containment ISI plans, results in an industry burden of 120 p-hrs/yr (12 p-hrs/yr x 10 plants).
- Appendix II Check Valve. 10 CFR 50.55a(b)(3)(iv)(B) requires trending and evaluation of test data to support changes in the check valve test frequency. This one-time evaluation is to be performed at a maximum of 3 years after implementation of Appendix II. Appendix II provides alternative requirements that licensees may implement as an option to OM Code requirements. On average, there are 260 safety-related check valves per plant. The time required for trending and evaluation of test data is estimated at 1 p-hr/valve, with 260 valves per plant, or an average of 86.7 hours annually. This one-time recordkeeping is complete.
- Reactor Vessel Head Penetration inspection. 10 CFR 50.55a(g)(6)(ii)(D), *Reactor Vessel Head Inspections*, requires PWR owners to inspect the reactor vessel head penetrations in accordance with ASME Code Case N-729-1 with conditions. The inspection requires preparing the inspection results. It is estimated that about 10% of the 69 PWRs will perform the inspection every year. The recordkeeping burden is estimated to be 83 p-hrs/yr (12 hours for recordkeeping x 0.1 x 69 PWRs)
- Reactor Coolant Pressure Boundary Visual Inspections. 10 CFR 50.55a(g)(6)(ii)(E), *Reactor Coolant Pressure Boundary Visual Inspections*, requires PWR owners to perform visual inspections of the Alloy 600 components in accordance with ASME Code Case N-722 with conditions. The result of the inspections will need to be prepared. It is estimated that about 10% of the 69 PWRs will perform the inspection every year. The increase recordkeeping burden is estimated to be 83 p-hrs/yr (12 hours for recordkeeping x 0.1 x 69 PWRs)
- Examination requirements for Class 1 piping and nozzle dissimilar metal butt welds. 10 CFR 50.55a(g)(6)(ii)(F), *Examination requirements for Class 1 piping and nozzle dissimilar metal butt welds*, requires PWR owners to exam the butt welds fabricated with UNS N06082 or UNS N86182 weld filler material in accordance with ASME Code Case N-770-1 with conditions. The inspection requires preparing the inspection results. It is estimated that about 10% of the 69 PWRs will perform the inspection every year. The increase recordkeeping burden is estimated to be 83 p-hrs/yr (12 hours for recordkeeping x 0.1 x 69 PWRs)

IEEE

Paragraph (h) of 10 CFR 50.55a incorporates by reference Institute of Electrical and Electronics Engineers Standard (IEEE Std) 279 and IEEE Std 603-1991 and requires that the protection systems for plants with construction permits issued after January 1, 1971, meet the requirements in either IEEE Std 279 or IEEE Std 603-1991. This includes 48 operating plants and the five plants currently being constructed. Section 3 in IEEE Std. 279 and Section 4 in IEEE Std. 603-1991 specify recordkeeping requirements for the design basis of the safety system. These recordkeeping requirements require the owner to document information necessary for determining the adequacy of the safety system, including design changes. The recordkeeping burden is estimated to be 100 p-hours/plant.

Reporting Requirements

Section III

The following reporting requirement is specified in Section III:

- III/NCA-5242: Providing Construction Documents to Inspector. A copy of the Design Specifications shall be made available to the Inspector at the manufacturing site before fabrication begins, and a copy filed with the NRC before components are placed in service (NCA-5242). No significant time is associated with this reporting requirement since it only represents a transfer of documents that have been routinely and previously prepared. It is conservatively estimated that 40 p-hrs are required to prepare the documentation to transfer the Design Specifications to the appropriate authorities. Four plants are estimated to prepare this documentation in this clearance period.

Section XI

The following reporting requirement is specified in Section XI:

- XI/IWA-6000: ISI Summary Reports. Prepare and submit Summary Report to NRC within 90 days following the refueling outage in which the ISI program is implemented (IWA-6230/6240). The Summary Report is prepared to document preservice and inservice examinations for Class 1 and Class 2 pressure retaining components and their supports. This includes documentation on ASME Form NIS-1 of examinations and tests performed, and documentation on ASME Form NIS-2 of repairs and replacements performed since the preceding summary report. On the average, there are two ISI programs per inspection period for each plant (there are three inspection periods per 10-year inspection interval).

Whenever a plant shuts down for refueling, an ISI is performed. Assuming an average refueling schedule of 18 months results in about 69 plants being inspected per year. Each inspection results in a Summary Report. It is estimated that 160 p-hrs/plant are required to prepare the summary report. This results in an industry reporting burden of 11,040 p-hrs/year (69 plants x 160 p-hrs/plant). When a plant voluntarily elects to implement Code Case N-532 burden is reduced by 5 p-hours per licensee annually. The industry reporting burden for Code Case N-532 is reduced 345 p-hours per year (69 reports x 5 p-hours). For a total reporting burden of 10,695 p-hrs/year (11,040 p-hrs/year – 345 p-hrs/year).

The following additional reporting requirements result from implementation of specific Section XI

technical requirements:

- XI/Subsections IWE & IWL. The reporting burden for 10 CFR 50.55a(b)(2)(viii)(B), (C), (D), and (E), which are modifications to Subsection IWL, 10 CFR 50.55a(b)(2)(ix)(A) which is a modification to Subsection IWE, is estimated to average 12 p-hrs/yr per plant. Assuming that 10 plants per year respond to the reporting requirements related to the containment ISI program, this results in an industry burden of 120 p-hrs/yr.
- XI/IWB/IWC/IWD-3100. These articles require submittal to the regulatory authority of analytical evaluations of examination results which exceed the applicable acceptance standards performed to accept components for continued service. These submittals are estimated to average 20 p-hrs/yr per submittal. Assuming that 10 plants per year are required to submit an analytical evaluation, this results in an industry burden of 200 p-hrs/yr.

10 CFR 50.55a

- Requests for alternatives. 10 CFR 50.55a(a)(3) allows applicants to use alternatives to the requirements of 10 CFR 50.55a paragraphs (c), (d), (e), (f), (g), and (h) when authorized by the NRC. It is estimated that all (104) of the plants will choose to use alternatives to the requirements of the 1998 Edition through 2004 Edition of the ASME Boiler and Pressure Vessel Code or the 1995 Edition through the 2004 Edition of the *ASME Code for the Operation and Maintenance of Nuclear Power Plants*. The estimated burden to prepare and submit an alternative to the NRC for authorization is 80 p-hours per alternative. The NRC staff assumes that each plant will submit an average of 3 alternatives per year (2 for ASME Section XI and 1 for the OM Code), for an annual burden of 24,960 hours (3 requests for alternatives x 104 plants = 24,960 hours).

In addition, NRC staff estimates that one plant per year will submit a request for alternatives associated with digital upgrades of their safety instrumentation and control (I&C), for an annual burden of 100 hours (1 request x 100 hours = 100 hours). The estimated burden to prepare and submit an alternative for I&C is 100 p-hours per alternative.

It is estimated that all four of the plants for which a combined license (COL) was issued under Part 52 will choose to use alternatives to the requirements of the 1998 Edition through 2004 Edition of the ASME Boiler and Pressure Vessel Code or the 1995 Edition through the 2004 Edition of the *ASME Code for the Operation and Maintenance of Nuclear Power Plants*. The estimated burden to prepare and submit an alternative to the NRC for authorization is 80 plant-hours per alternative. NRC staff assumes that each COL plant will submit an average of 5 alternatives per year (3 for ASME Section III, 1 for Section XI, and 1 for OM Code), the estimated industry reporting burden for new reactors is 1600 plant-hrs/year (5 alternatives/year/plant x 80 plant-hrs/alternative x 4 COL plants).

The total burden for requests for alternatives is estimated for be 26,660 hours (24,960 for operating reactors + 1,600 for COLs + 100 hours for I&C).

- 50.55a(b)(3)(v): Snubbers. 10 CFR 50.55a(b)(3)(v) requires that a licensee voluntarily

choosing to use Subsection ISTD for the examination of snubbers may do so after processing a one-time plant technical specification or licensee-controlled documents change. All of the plants will have to implement Subsection ISTD for the examination of snubbers once they implement the 2005 Addenda (or later Editions/Addenda) of the ASME OM Code. It is estimated that 20 plants will implement ISTD during the next three years. The estimated one-time reporting burden to prepare a technical specification change during the next three years is 2,000 p-hrs (100 p-hrs/plant x 20 plants). This results in an annual burden of 667 p-hrs/yr (100 p-hrs/plant x 20 plants / 3 years).

- Relief requests. 10 CFR 50.55a(f)(5) and 10 CFR 50.55a(g)(5) allow applicants to request relief from Code requirements determined to be impractical. It is estimated that all (104) of the plants will need to request relief from some of the requirements of the ASME B&PV Code or the ASME OM Code. The estimated burden to prepare and submit a request for relief from Code requirements is 80 p-hours per relief request. Assuming each plant submits an average of 4 relief requests per year (3 for ASME Section XI and 1 for the OM Code), the estimated industry reporting burden is 33,280 p-hrs/year (4 relief requests/year/plant x 80 p-hrs/relief request x 104 plants).

A number of changes to the ASME Code, incorporated by reference through the rulemaking process, have resulted in a reduction or an increase in the number of relief requests submitted over time. The current estimate is based on the actual number of relief requests received by the NRC over the past three years, and therefore incorporates the reductions and increases that resulted from these rulemakings:

- ✓ The 1998 Edition deleted the requirement to perform a visual examination of paint and coatings reapplied to containment surfaces (1995 Edition, IWE-2200(g)), and, therefore, licensees no longer request relief from this ISI provision.
- ✓ Code Case N-605 was incorporated in IWE-2500(c) in the 1998 Edition and, therefore, licensees are no longer be required to request approval for its use.
- ✓ The 1998 Edition deleted the requirement to visually examine containment seals and gaskets (1995 Edition Table IWE-2500-1, Category E-D, Items E5.10 and E5.20), and, therefore, licensees will no longer request relief from this ISI provision.
- ✓ In ISTB-1200 and ISTC-1200 of the 1998 Edition of the ASME OM Code, skid mounted pumps and valves were excluded from the requirements of the Code provided they are tested as part of the major component and are justified by the Owner as being adequately tested. In the past, licensees had requested relief for skid mounted components from certain Code test requirements (for example, valves on the diesel generator skid). The implementation of the revised IST provision eliminates these relief requests.
- ✓ The 1998 Edition of the ASME OM Code, ISTC-5223, added a provision to allow operational testing of two check valves in series as a unit, provided certain conditions are met. Therefore, licensees no longer request relief from this IST provision.
- ✓ 10 CFR 50.55a(b)(3)(iv) allows the exercise interval for manual valves to be extended from 3 months to 2 years when implementing the 1999 Addenda of the OM Code. Therefore, licensees no longer request relief from this IST provision.
- ✓ The requirements in ISTA 1.4, ISTA 1.5, and ISTA 2.1 requiring the use of an Authorized Inspection Agency for inspection services were deleted in the

1997 Addenda. Therefore, licensees no longer request relief to use this provision.

- ✓ 10 CFR 50.55a(g)(6)(ii)(D), *Reactor Vessel Head Inspections*, requires PWR owners to inspect the reactor vessel head penetrations in accordance with ASME Code Case N-729-1 with conditions. If an owner could not meet the requirements of 10 CFR 50.55a(g)(6)(ii)(D), it needs to submit a relief request.
- ✓ 10 CFR 50.55a(g)(6)(ii)(E), *Reactor Coolant Pressure Boundary Visual Inspections*, requires PWR owners to perform visual inspections of the Alloy 600 components in accordance with ASME Code Case N-722 with conditions. If an owner could not meet the requirements of 10 CFR 50.55a(g)(6)(ii)(E), it needs to submit a relief request.
- ✓ 10 CFR 50.55a(g)(6)(ii)(F), *Examination requirements for Class 1 piping and nozzle dissimilar metal butt welds*, requires PWR owners to exam the butt welds fabricated with UNS N06082 or UNS N86182 weld filler material in accordance with ASME Code Case N-770-1 with conditions. If an owner could not meet the requirements of 10 CFR 50.55a(g)(6)(ii)(F), it needs to submit a relief request.
- ✓ ISTB 3.2 and 4.3 (1994 Addenda) require bypass/test loops to accommodate within $\pm 20\%$ of design flow when used for the comprehensive or Group A tests. For the purpose of this analysis, it is assumed that all PWRs have to modify the bypass/test loops or prepare and submit a relief request to the NRC for approval.
- ✓ IWA-4340 (1991 Addenda) eliminates a surface examination for certain repair removal cavities and an elimination of a need to submit a relief request.
- ✓ IWB-1220, IWC-1220, and IWD-1220 (1991 Addenda) each give an exemption for inaccessible integral attachments. I is no longer required to document these inaccessible integral attachments in relief requests.
- ✓ IWC-5222(e) (1991 Addenda) exempted open-ended lines from hydrostatic tests, eliminating a need for a relief request.
- ✓ IWA-5221, Table IWB-2500-1, IWB-5200, Table IWC-2500-1, IWC-5200, and IWD-5240 (1993 Addenda) were revised to stipulate a "system leakage test" in lieu of a system hydrostatic test during each 10-year interval, eliminating the need for a relief request. (Note, this applies only to BWR plants which encounter problems with obtaining the Code-required pressure for hydrostatic testing of Class 2 portions of the main steam system.)
- ✓ IWF-1230 (1990 Addenda) exempts examination of inaccessible supports, eliminating the need for a relief request.

A. JUSTIFICATION

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

The ASME B&PV and OM Codes provide listings of information required and specific forms to assist in documenting required information. In general, Section III records are needed to provide documentation that construction procedures have been properly implemented. ASME B&PV Code, Section XI, and ASME OM Code records are needed to document the plans for and results of ISI and IST programs. The information is generally not collected, but is retained by the licensee to be made available to the NRC in the event of an NRC inspection or audit. ASME B&PV and OM Code requirements are incorporated in 10 CFR 50 to avoid the need for writing equivalent NRC

requirements.

2. Agency Use of Information

The records are generally historical in nature and provide data on which future activities can be based. The practical utility of the information collection for NRC is that appropriate records are available for auditing by NRC personnel to determine if ASME B&PV and OM Code provisions for construction, inservice inspection, repairs, and inservice testing are being properly implemented in accordance with 10 CFR 50.55a of the NRC regulations, or whether specific enforcement actions are necessary.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. The NRC encourages respondents to use information technology when it would be beneficial to them. NRC issued a regulation on October 10, 2003 (68 FR 58791), consistent with the Government Paperwork Elimination Act, which allows its licensees, vendors, applicants, and members of the public the option to make submissions electronically via CD-ROM, e-mail, special Web-based interface, or other means. It is estimated that approximately 15% of the potential responses are filed electronically.

1. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. There is no duplication of requirements. NRC has in place an ongoing program to examine all information collections with the goal of eliminating all duplication and/or unnecessary information collections.

1. Effort to Reduce Small Business Burden

The provisions of 10 CFR 50.55a affect only the construction and operation of nuclear power plants and, therefore, do not affect small businesses.

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

The information generally is not collected but is retained by the licensee to be made available to the NRC in the event of an NRC audit.

7. Circumstances Which Justify Variation from OMB Guidelines

ASME B&PV Code, Section XI, and ASME OM Code requirements for ISI and IST programs, and 10 CFR 50.55a specify that records and reports must be maintained for the service lifetime of the component or system. Such lifetime retention of the records is necessary to ensure adequate historical information of the design, examination, and testing of components and systems to provide a basis for evaluating degradation of these components and systems at any time during their service lifetime.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published in the Federal Register on May 14, 2013 (78 FR 28244). No comments were received.

9. Payment or Gift to Respondents

Not applicable.

1. 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).

11. Justification for Sensitive Questions

No sensitive questions are involved.

12. Estimated Industry Burden and Burden Hour Cost

a. Number and Type of Respondents

In general, the information collection requirements incurred by 10 CFR 50.55a through incorporation by reference of the ASME B&PV and OM Code could apply to the 104 nuclear power plants presently in operation and certain requirements will apply to the five plants currently under construction as described above.

b. Estimated Hours Required to Respond to the Collection

Tables 1, 2, and 3 show the estimated industry burden necessary to respond to the Section III, Section XI, OM Code, and 10 CFR 50.55a information collection requirements discussed above.

The total industry information collection burden is 326,397 p-hrs/year (71,785 hrs reporting + 254,508 hrs recordkeeping + 104 hrs third party disclosure).

c. Estimated Cost Required to Respond to the Collection

Based upon an annual burden of 326,397 person-hrs and a rate of \$274/hr, it is estimated that the cost to the industry for responding to the information collection is a total of \$89,432,778/year (326,397 p-hrs x \$274/hour).

13. Estimate of Other Additional Costs

The NRC has determined that the quantity of records to be maintained is roughly proportional to the recordkeeping burden and, therefore, can be used to calculate approximate records storage costs. Based on the number of pages maintained for a typical clearance, the records storage cost has been determined to be equal to 0.0004 times the recordkeeping burden cost. Because the recordkeeping burden is estimated to be 254,508 hours, the storage cost for this clearance is \$27,894 (254,508 hours x 0.0004 x \$274/hour).

14. Estimated Annualized Cost to the Federal Government

NRC inspection personnel who routinely audit plant construction, ISI, and IST programs would include, in the audit, verification that the identified records have been properly prepared and maintained. Since NRC inspectors would generally verify these records as part of the normal NRC audit process, the annual cost to the Federal government is considered to be very small.

In addition to records which are prepared but are maintained at the plant site, the licensee submits summary reports of the inservice inspection program directly to the NRC. These summary reports are reviewed by the staff for the purpose of identifying generic issues. A licensee submits a summary report about twice during each inspection period. On the average, this results in about 70 summary report submittals to the NRC each year. A summary report is reviewed on the average in about 2 hours, resulting in a burden to the NRC of 140 p-hrs/year for all plants. This results in an annual cost to the Federal government of \$38,360 (140 hours x \$274/hour).

The frequency for containment inservice inspection is once every 3 years (corresponding to the ASME Code Section XI inspection interval for components addressed by Section XI). NRC inspection personnel who audit plant quality assurance records include in their audit verification that the above records are being properly prepared and maintained. The time associated with NRC inspectors verifying these records is very small when the activity is performed as part of a normal quality assurance audit. Additional staff time is required only for cases where containment degradation was reported by licensees. It is estimated that 80 hours of staff time is spent reviewing licensee documents in such cases. The number of incidences reported on an annual basis where containment degradation has exceeded ASME Code limits is expected to be 4. Therefore, annual government burden is estimated to be 320 p-hrs/year (4 reports x 80 hours) x \$274, or \$87,680.

Based on the above, the total estimated annual Federal burden is 460 hours at a cost of \$126,040 (\$38,360 + \$87,680). This cost is fully recovered through fee assessments to NRC licensees pursuant to 10 CFR 170 and/or 10 CFR 171.

1. Reasons for Change in Burden

The burden increased by 51,371 hours, from 275,026 to 326,397 hours. The increase in burden comes in part from the inclusion of the recordkeeping and reporting requirements for the five plants currently under construction. There is also an increase in burden associated with the incorporation by reference ASME Code Case N-770-1 with conditions in which the NRC requires owners to perform augmented examinations of Class 1 piping and nozzle dissimilar metal butt welds. These inspections will result in an increase of 83 recordkeeping burden hours.

The primary reason for the increase in burden is a change in the burden estimate to prepare relief requests. The estimated time to prepare a relief request was adjusted from 20 hours per request to 80 hours per request, based on staff experience. This increased the burden from 8,320 hours (104 reactors x 4 responses/reactor x 20 hours = 8,320 hours) to 33,280 hours (104 reactors x 4 responses/reactor x 80 hrs = 33,280 hours), an increase of 24,960 hours.

The estimated time to prepare a request for alternatives was adjusted from 100 hours per request to 80 hours per request, based on staff experience, and for consistency with estimates to prepare relief requests, which entail a similar paperwork burden. This decreased the burden for this requirement from 31,200 hours (104 reactors x 3 requests/reactor x 100 hours = 31,200 hours) to 24,960 hours (104 reactors x 3 requests/reactor x 80 hours = 24,960 hours). However, additional time was added for 4 COLs to submit 5 requests for alternatives, which added 1,600 hours (4 COLs x 5 requests/COL x 80 hours = 1,600 hours). An additional 100 hours was also added for one plant per year to submit a request for alternatives for digital instrumentation and control.

The pump and valve surface exams requirement (Table IWB-2500-1, 1994 Addenda) was removed from the package. This was a clarification that if a partial exam was done, then a full exam should be done at a later point in time if disassembly of the pump or valve made it possible. In the previous package, this requirement was captured as a burden of 21 p-hrs/yr (2 p-hrs x 104 plants/10 yr).

The burden associated with submitting the analytical flaw evaluations required by IWB/IWC/IWD-3100 was added to the package. These articles require submittal to the regulatory authority of analytical evaluations of examination results which exceed the applicable acceptance standards performed to accept components for continued service. This burden is estimated to average 20 p-hrs/yr per submittal. Assuming that 10 plants per year are required to submit an analytical evaluation, this results in an industry burden of 200 p-hrs/yr. This is not a new requirement; however, it was inadvertently left out of the last submittal.

The pressure test of relief valves requirement (IWA-4132(e), 2001 Edition) was removed from the package. The requirement was moved from ASME Section XI and it was added to the ASME OM Code. There was no reduction in recordkeeping burden. In the previous package, this requirement was captured as a burden reduction of 624 p-hours/yr.

The Control Rod Drive Housing Bolting examinations of 10 CFR 50.55a(b)(2)(xxi)(B) recordkeeping requirements were removed from the package. This requirement was removed from 10 CFR 50.55a. In the previous package, this requirement was captured as a burden of 104 p-hours a year (1 p-hour x 104 units).

Based on burden reductions in prior rulemakings, the previous renewal package included burden reductions for a number of requirements. However, in this renewal, all burden reductions have been removed and burden estimates are only given for the number of plants expected to comply with a requirement during the clearance period. The following reductions have been removed from the table, which accounts for 8,069 hours of the increase in burden from the previous submission to the current submission:

- ✓ The standby pump vibrations requirement (ISTB 5.2.2(b) and Table ISTB 4.1-1, 1994 Addenda) was removed from the package. This requirement was never previously captured as a burden. In the previous package, this requirement was captured as a burden reduction of 2,080 p-hrs/yr.

- ✓ The authorized inspection agency requirement (ISTA 1.4, ISTA 1.5, ISTA, 2.1) was removed from the package. The NRC staff noted that this inspection requirement was not captured in the estimates; therefore it was not appropriate to reduce the recordkeeping burden associated with these inspection services. In the previous package, this requirement was captured as a burden reduction of 416 p-hrs/yr.
- ✓ The skid mounted pumps and valves requirement (ISTB-1200 and ISTC-1200, 1998 Edition) was removed from the package. The skid mounted pumps and valves no longer require individual tests. They are tested as part of the major component; however, the recordkeeping burden is still the same. In the previous package, this requirement was captured as a burden reduction of 208 p-hrs/yr.
- ✓ The containment vacuum relief valve test frequency requirement (Appendix I, 1.3.7(a), 1994 Addenda) was removed from the package. The NRC staff noted that this test frequency change was not captured in the estimates, therefore it was not appropriate to reduce the recordkeeping burden associated with this test frequency extension. In the previous package, this requirement was captured as a burden reduction of 52 p-hrs/yr.
- ✓ The air or nitrogen alternate test (Appendix I, 4.1.2(a) and 8.1.2(a), 1994 Addenda) was removed from the package. The NRC staff noted that these tests were not captured in the estimates, therefore it was not appropriate to reduce the recordkeeping burden associated with this test frequency extension. In the previous package, this requirement was captured as a burden reduction of 832 p-hrs/yr.
- ✓ The ISTA3.2.1 Class 1 & 2 tests (ISTA3.2.1, 1990 Edition) was removed from the package. The NRC staff noted that the requirement for preparing and submitting a summary report for Class 1 and Class 2 pump and valve tests to the NRC was not captured in the estimates, therefore it was not appropriate to reduce the reporting burden associated with this requirement. In the previous package, this requirement was captured as a burden reduction of 4,160 p-hrs/yr.
- ✓ The manual valve exercise frequency in 10 CFR 50.55a(b)(3)(vi) was removed from the package. The NRC staff noted that the reduction in recordkeeping for this frequency increase was not captured in the estimates, therefore it was not appropriate to reduce the recordkeeping burden associated with this requirement. In the previous package, this requirement was captured as a burden reduction of 321 p-hours/yr.

Finally, costs have increased from \$257/hr to \$274/hr.

1. Publication for Statistical Use

The information will not be 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.

Table 1
Annual Reporting Burden

Requirement	Number of Respondents	Responses per Respondent	Response	Burden per Response	Total Burden
III/NCA-5242: Providing Construction Documents to Inspector*	4.0	1.0	4.0	40.0	160.0
XI/IWA-6000: ISI Summary Reports	69.0	1.0	69.0	155.0	10,695.0
XI/Subsections IWE & IWL	10.0	1.0	10.0	12.0	120.0
XI/IWB/IWC/IWD-3100	10.0	1.0	10.0	20.0	200.0
50.55a(a)(3): Alternatives submitted by power reactors	104.0	3.0	312.0	80.0	24,960.0
50.55a(a)(3): Alternatives submitted by	4.0	5.0	20.0	80.0	1,600.0
50.55a(a)(3): Alternatives for I&C	1.0	1.0	1.0	100.0	100.0
50.55a(b)(3)(v): Snubbers*	6.7	1.0	6.7	100.0	670.0
50.55a(f)(5) and (g)(5): Relief Requests	104.0	4.0	416.0	80.0	33,280.0
Total			848.7		71,785.0

Table 2
Annual Recordkeeping Burden

Requirement	Number of Plants	Burden to Individual Plant (p-hrs/yr)	Total Annual Burden	Retention Period
III/NCA-3270: Owner's Data Report*	1.3	400.0	533.3	Life
III/NCA-3260: Design Report*	1.3	2000.0	2666.7	Life
III/NB/NC/ND-3220: Overpressure Protection Report*	1.3	2000.0	2666.7	Life
Quality Assurance Program	Included in 10 CFR 50, Appendix B (See Section 15)			
Design Specifications	Routine business practice, no burden			
XI/IWA-6220: Records of Exams: NIS-1 Forms	107.0	40.0	4280.0	Life
XI/IWA-7520: Records of Repairs: NIS-2 Forms	105.0	100.0	10500.0	Life
XI/IWA-6210: ISI and IST Plans and Schedules	10.9	2000.0	21800.0	Life
XI/IWB/IWC/IWD-2000: Records of Component Tests (PWRs)	74.0	403.0	29822.0	Life
XI/IWB/IWC/IWD-2000: Records of Component Tests (BWRs)	35.0	404.0	14140.0	Life
XI/Subsections IWE & IWL - develop ISI plan*	5.0	1333.3	6666.7	Life
XI/Subsections IWE & IWL - implement ISI plan	10.0	778.0	7780.0	Life
XI/IWB-2500: Reactor Vessel Exam	10.4	200.0	2080.0	Life
XI/Appendix VII: Qualification of NDE personnel	109.0	65.0	7085.0	Life
XI/Table IWA-1600-1: ASME QAI-1 Specification	109.0	10.0	1090.0	Life
XI/IWA-2210: Visual Examinations	109.0	1.0	109.0	Life
XI/IWA-2322: Near-distance Test Chart*	6.7	2.0	13.4	Life
XI/IWA-4130: Repair Plans	105.0	100.0	10500.0	Life
XI/IWB-4300: PWR Steam Generator Slewing	20.7	4.0	82.8	Life
XI/App. VIII: Qualification records*	0.0	260.0	0.0	Life
Code Case N-513-2	104.0	20.0	2080.0	Life
Code Case N-523-2	104.0	20.0	2080.0	Life
Welding/Brazing Qualification Records	109.0	8.0	872.0	Life
OM/Subsection ISTB: Records of Pump Tests	104.0	320.0	33280.0	Life
OM/Code Subsection ISTC: Records of Valve Tests	104.0	800.0	83200.0	Life
OM/Table ISTB 4.7.1-1: Pump Pressure Instruments	104.0	3.0	312.0	Life
Code Case OMN-1: Alternative Rules for Testing Valves**	52.0	100.0	5200.0	Life
50.55a(b)(2)(viii) and (ix): Updated Containment ISI Plans	10.0	12.0	120.0	Life
50.55a(v)(3)(iv)(B): Appendix II Check Valve*	0.0	86.7	0.0	Life
10 CFR 50.55a(g)(6)(ii)(D), Reactor Vessel head Penetration inspection	6.9	12.0	82.8	Life
10 CFR 50.55a(g)(6)(ii)(E), Reactor Coolant Pressure Boundary Visual	6.9	12.0	82.8	Life
10 CFR 50.55a(g)(6)(ii)(F), Examination requirements for Class 1 piping and nozzle dissimilar metal butt welds	6.9	12.0	82.8	Life
10 CFR 50.55a(h), Protection and safety systems	53.0	100.0	5300.0	Life
Total			254507.9	

Table 3
Annual Third Party Disclosure Burden

Requirement	Number of Respondents	Responses per Respondent	Responses	Burden per Response	Total Burden
III/NCA-3230: Owner's Certificate; AIA Agreement*	1.3	1.0	1.3	80.0	104.0

Table 4
Burden Totals and Cost

Burden Type	Burden Hours	Cost at \$274/hr
Reporting	71,785	\$19,669,090
Recordkeeping	254,508	\$69,735,192
Third Party Disclosure	104	\$28,496
Total for 50.55a	326,397	\$89,432,778