

PRM-50-89

From: <Raymond.A.West@dom.com>
To: <secy@nrc.gov>
Date: Wed, Dec 19, 2007 9:57 AM
Subject: Petition For Rulemaking To Amend 10 CFR 50.55a - Rev.1

DOCKETED
USNRC

December 26, 2007 (7:49am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Dear Ms. Vietti-Cook:

On December 14, 2007, I submitted a petition for Rulemaking in accordance with the provisions of 10 CFR 2.802 to amend 10 CFR 50.55a and with this e-mail I am withdrawing the original petition and submitting a Revision 1 to the petition for Commission consideration. This Revision 1 centers on amending the regulation to address specifically the provisions needed to request NRC approval to use changes or modifications to ASME Code Cases that have been approved by the NRC in the Regulatory Guides cited in 10 CFR 50.55a. Upon further investigation into this issue it has become clear to me that this issue is purely an administrative issue, it has no impact to staff resources, applicants or licensees, and does not affect the public health and safety. The staff has provided adequate precedence allowing applicants and licensees to request alternatives under 10 CFR 50.55a(a)(3) to use changes or modifications to NRC approved ASME Code cases, but clarity in the regulation is needed to provide for the direct use of these Code cases with changes or modifications. Therefore, I hope that this Revision 1 petition will be found to have merit by the Commission and will proceed through the process into the Federal Register for public comment. Please let me know by e-mail that you have received this submittal because my computer system will not automatically notify me of that fact.

PLEASE NOTE THAT THE VIEWS EXPRESSED IN THIS PETITION ARE MY OWN AND ARE NOT TO BE CONSIDERED THOSE OF ASME OR MY EMPLOYER

(See attached file: 2.802 Petition For Rulemaking Rev.1 raw.pdf)

Very Truly Yours,

Ray West

Contact Information Only
Raymond (Ray) A. West
Dominion Resources Services, Inc.
Millstone Power Station
Bldg 475/4, Route 156, Rope Ferry Road
Waterford, CT 06385
Tele: (860) 447-1791 Ext. 2282 Fax: (860) 444-4315
E-mail: Raymond.A.West@dom.com

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CC: <jlu@nrc.gov>, <whb@nrc.gov>, <evi@nrc.gov>, <tlc@nrc.gov>, <ejs@nrc.gov>, <wen@nrc.gov>, <gsm@nrc.gov>

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Ms. Annette L. Vietti-Cook
Secretary, U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
secy@nrc.gov / 301 415-1969

Attention: Rulemakings and Adjudications Staff

Subject: Petition For Rulemaking To Amend 10 CFR § 50.55a
Codes and Standards

Attachment: (1) Estimated Regulatory Analysis Impact

Dear Ms. Vietti-Cook:

My name is Raymond (Ray) A. West and I am submitting this petition for Rulemaking as a concerned citizen and a member of the nuclear community (i.e., a Stakeholder). I have been involved in nuclear power for over 30 years. I am currently a member of the ASME Board on Nuclear Codes and Standards (BNCS), the Co-Chairman of the BNCS Task Group on Regulatory Endorsement, a member of the ASME Subcommittee on Nuclear Inservice Inspection and numerous lower level ASME committees. I am employed by Dominion Resources Services, Inc., as a Technical Consultant in the Nuclear Engineering Department, and I have Authored or Co-Authored over 13 technical papers for various industry conferences and organizations. My background is primarily in inservice inspection (ISI) activities, risk-informed ISI, and traditional ISI program development. With this level of experience I believe that I am qualified to submit this petition for consideration and hopefully ultimate approval by the Commission. The views expressed in this petition are my own and are not to be considered those of ASME or my employer.

PROBLEM STATEMENT

The regulation 10 CFR 50.55a currently provides no defined provisions to allow changes or modifications to be proposed as alternatives under (a)(3) to ASME Code cases that are listed in Regulatory Guides 1.84, 1.147, or 1.192, which the NRC has approved for use in accordance with the requirements in paragraphs (b)(4), (b)(5), and (b)(6).

Requirements for proposing alternatives in paragraph (a)(3) are limited to the requirements contained in paragraphs (c), (d), (e), (f), and (g). Alternatives to requirements in paragraph (b) are not allowed. This structure of the current regulation was appropriate for many years, but when the requirements of (b)(4), (b)(5), and (b)(6) were added to the regulation this change closed the use of (a)(3) as a process that could be used for direct approval of changes or modifications to NRC approved ASME Code cases.

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BACKGROUND

Code cases are written by ASME to provide alternatives to existing Code requirements or to introduce new technologies or methodologies. It takes ASME approximately 2 years to develop, approve, and publish a Code case. It takes the NRC another 2 years to approve these Code cases for generic use by applicants or licensees in their Regulatory Guides or to specifically list them in the regulation for mandatory use or for special permissive application. Most applicants or licensees are willing to wait for this generic approval of these Code cases because of the cost involved in requesting to use a Code case before it becomes part of the regulation. It has been estimated in past regulatory assessments used to justify review of Code cases by the staff for incorporation into its Regulatory Guides that it would cost an applicant or licensee a minimum of \$12,000.00 to request approval of a single Code case prior to generic approval in a Regulatory Guide. Because of this cost applicants and licensees usually choose to wait for the generic approval of a Code case before they choose to use it.

Typically 4 years may pass between identifying a need for a particular Code case and acceptance for generic use by applicants or licensees in Regulatory Guides. Then, when an applicant attempts to use the Code case that has since been accepted for generic use, they have and do find in some instances that there are one or two requirements in the Code case that cannot be met. There are various reasons for this situation, including:

- The need for the Code case has broadened beyond the scope of the approved Code case,
- The committee that developed the Code case did not foresee all possible uses of a particular Code case, or
- Limitations at a particular site may preclude using a Code case without modification.

The problem can be exasperating when there is an immediate need to use a Code case, it contains most of the needed requirements to resolve an emergent issue, but it still cannot be used without a change or a modification. This has happened several times in the industry and most recently in trying to mitigate primary water stress corrosion cracking (PWSCC) in Alloy 82/182 welds. A Code case was approved by the NRC for use in the appropriate Regulatory Guide for weld overlay of stainless steel material, but not for austenitic nickel based material that was subject to potential PWSCC. This seemingly minor change resulted in licensees having to perform a work-a-round to the regulation, which generally consisted of requesting to use some Code cases with modifications. Use of Code cases with modifications cannot be directly performed under the provisions of (a)(3) without a work-a-round.

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The work-a-round and accepted NRC precedent to the provisions of (a)(3) in this situation consist of proposing to use an alternative to the governing Code requirements such as ASME Code Section XI requirements in lieu of just asking to use a Code Case with a change or modification. This alternative is allowed under (a)(3) because the provisions of paragraph (g) in the regulation are the ones that govern the use of Section XI. This practice is well documented in ADAMS with the approval of alternative requests for the use of Code cases with modifications that have been approved in applicable Regulatory Guides.

Regardless of why the need comes about to use a NRC approved Code case with a change or modification, it is the work-a-round to the provisions of (a)(3) that is the issue. Is this work-a-round necessary or can the regulation just be amended to reflect the direct use of a change or modification to a Code case under (a)(3)?

Because the regulation will not let you use (a)(3) directly and request approval of a Code case change or modification, choices have to be made in how to deal with this issue. Those choices may include going back to ASME and requesting a revision to the Code case or that a new Code case be developed, which is usually not done because it's not practical to wait another 4 years. If the need is urgent the only choice that is left is to perform a work-a-round to the regulation, which is described above and has been done routinely.

Applicants and licensees have tried to just submit an alternative under (a)(3) asking for just approval of the change or modification to a Code case directly, but the staff has docketed responses in the past that reflect that not only does (a)(3) not allow alternatives to the provisions of (b), but also that alternatives to alternatives are not allowed under (a)(3) with the following justification statement:

Taken from ADAMS Ascension Number ML050040478 - The Staff expects that Code cases approved in Regulatory Guide 1.147 will be adopted in their entirety. Further, the regulations in 10 CFR 50.55a(a)(3), allow licensee's to propose alternatives to Code and/or CFR requirements, [Note: this statement provided by the NRC does not include part (b) where Code cases are now incorporated into the regulation], provided (i) an acceptable level of quality and safety will be realized by the alternative, or (ii) existing Code or CFR requirements would impose an unusual hardship or difficulty without a compensating increase in quality and safety. However, no mechanism for evaluating a licensee's proposal to an existing, NRC-approved, voluntary alternative is allowed by the provisions in 10 CFR 50.55a(a)(3). This would, in effect, be providing an alternative to an alternative.

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PROPOSED SOLUTION

Adopt and approve this proposed amendment to provide clarity in the regulation to correct this administrative issue. This issue is associated with not being able to directly request approval of an alternative under the requirements of (a)(3) for changes or modifications to currently NRC approved ASME Code Cases. The following is the proposed amendment to Title: 10 Code of Federal Regulations (CFR) Part 50.55a Codes and standards.

Proposed Changes = Red Underlined Text

§ 50.55a Codes and standards.

(a)

(3) Proposed alternatives to the requirements of paragraphs (b)(4)(iv), (b)(5)(iv), (b)(6)(iv), (c), (d), (e), (f), (g), and (h) of this section or portions thereof may be used when authorized by the Director of the Office of Nuclear Reactor Regulation. The applicant shall demonstrate that:

(i) The proposed alternatives would provide an acceptable level of quality and safety, or

(ii) Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

(b) The ASME Boiler and Pressure Vessel Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants, which are referenced in paragraphs (b)(1), (b)(2), and (b)(3) of this section, were approved for incorporation by reference by the Director of the Office of the Federal Register pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. NRC Regulatory Guide 1.84, Revision 33, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III" (August 2005); NRC Regulatory Guide 1.147 (Revision 0-February 1981), including Revision 1 through Revision 14 (August 2005), "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1"; and Regulatory Guide 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code" (June 2003), have been approved for incorporation by reference by the Director of the Office of the Federal Register pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. These regulatory guides list ASME Code cases which the NRC has approved in accordance with the requirements in paragraphs (b)(4), (b)(5), and (b)(6).

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(4) *Design, Fabrication, and Materials Code Cases.* Applicants or licensees may apply the ASME Boiler and Pressure Vessel Code cases listed in NRC Regulatory Guide 1.84, Revision 33, without prior NRC approval subject to the following:

(i) When an applicant or licensee initially applies a listed Code case, the applicant or licensee shall apply the most recent version of that Code case incorporated by reference in this paragraph.

(ii) If an applicant or licensee has previously applied a Code case and a later version of the Code case is incorporated by reference in this paragraph, the applicant or licensee may continue to apply the previous version of the Code case as authorized, or may apply the later version of the Code case, including any NRC-specified conditions placed on its use, until it updates its Code of Record for the component being constructed.

(iii) Application of an annulled Code case is prohibited unless an applicant or licensee applied the listed Code case prior to it being listed as annulled in Regulatory Guide 1.84. If an applicant or licensee has applied a listed Code case that is later listed as annulled in Regulatory Guide 1.84, the applicant or licensee may continue to apply the Code case until it updates its Code of Record for the component being constructed.

(iv) Changes or modifications to an approved Code case listed in Regulatory Guide 1.84 may not be used unless the proposed alternatives are authorized by the Director of the Office of Nuclear Reactor Regulation.

(5) *Inservice Inspection Code Cases.* Licensees may apply the ASME Boiler and Pressure Vessel Code cases listed in Regulatory Guide 1.147 through Revision 14, without prior NRC approval subject to the following:

(i) When a licensee initially applies a listed Code case, the licensee shall apply the most recent version of that Code case incorporated by reference in this paragraph.

(ii) If a licensee has previously applied a Code case and a later version of the Code case is incorporated by reference in this paragraph, the licensee may continue to apply, to the end of the current 120-month interval, the previous version of the Code case as authorized or may apply the later version of the Code case, including any NRC-specified conditions placed on its use.

(iii) Application of an annulled Code case is prohibited unless a licensee previously applied the listed Code case prior to it being listed as annulled in Regulatory Guide 1.147. Any Code case listed as annulled in any Revision of Regulatory Guide 1.147 which a licensee has applied prior to it being listed as

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annulled, may continue to be applied by that licensee to the end of the 120-month interval in which the Code case was implemented.

(iv) Changes or modifications to an approved Code case listed in Regulatory Guide 1.147 may not be used unless the proposed alternatives are authorized by the Director of the Office of Nuclear Reactor Regulation.

(6) Operation and Maintenance of Nuclear Power Plants Code Cases.

Licensees may apply the ASME Operation and Maintenance Nuclear Power Plants Code cases listed in Regulatory Guide 1.192 without prior NRC approval subject to the following:

(i) When a licensee initially applies a listed Code case, the licensee shall apply the most recent version of that Code case incorporated by reference in this paragraph.

(ii) If a licensee has previously applied a Code case and a later version of the Code case is incorporated by reference in this paragraph, the licensee may continue to apply, to the end of the current 120-month interval, the previous version of the Code case as authorized or may apply the later version of the Code case, including any NRC-specified conditions placed on its use.

(iii) Application of an annulled Code case is prohibited unless a licensee previously applied the listed Code case prior to it being listed as annulled in Regulatory Guide 1.192. If a licensee has applied a listed Code case that is later listed as annulled in Regulatory Guide 1.192, the licensee may continue to apply the Code case to the end of the current 120-month interval.

(iv) Changes or modifications to an approved Code case listed in Regulatory Guide 1.192 may not be used unless the proposed alternatives are authorized by the Director of the Office of Nuclear Reactor Regulation.

SUMMARY

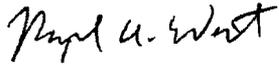
I believe that this petition for rulemaking identifies a needed area of improvement in the regulation. If this petition is approved this can be accomplished without any reduction in the public health and safety that the Commission so aggressively protects. I sincerely appreciate the opportunity that the petition process provides to members of the public such as myself to be able to identify even a minor issue such as this one and then to submit a proposed solution. I hope this petition will result in a positive change. With that all said I want to thank you and the Commission in advance for your time and consideration in addressing this issue.

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Very Truly Yours,



Raymond (Ray) A. West
Dominion Resources, Inc.
Millstone Power Station
Route 156 Rope Ferry Road
Waterford, CT 06385
Tele: (860) 447-1791 Ext. 2282
Raymond.A.West@dom.com

Attachment (1)

Estimated Regulatory Analysis Impact

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Proposed Amendment Impact

The proposed amendment will allow applicants and licensees to request direct changes or modifications to NRC approved ASME Code cases under the provisions of 10 CFR 50.55a(a)(3). Currently it has been estimated that the cost of obtaining NRC approval to use a single Code case that has not been approved for generic use is \$12,000.00 minimum. This is the same estimated minimum cost under the regulation today even if a minor change or modification is needed to use a NRC approved ASME Code case. It is estimated that there would be no change in the cost or man-hours required if this change is approved.

OMB Analysis (Hours/year)

- Reduce/Increase Reporting requirements: N/A
- Reduce/Increase Record Keeping Requirements: N/A

Regulatory Analysis (Quantify dollars, time, Dose)

- Reduce/Increase Safety: A minor unquantifiable increase in safety could be expected from a human performance perspective by understanding and having clear requirements in 10 CFR 50.55a to address a change or modification to a Code case.
- Reduce/Increase Cost: N/A
- Reduce/Increase Requirements: 10 CFR 50.55a will increase in size by the addition of 3 new requirements paragraphs, but the requirements will clearly address the use of Code Cases with changes or modifications under the provisions of (a)(3).
- Reduce/Increase Complexity of Plant Operation: N/A
- Reduce/Increase Facility Down Time: N/A
- Reduce/Increase Radiation Exposure: N/A

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Creation Date Wed, Dec 19, 2007 9:56 AM
From: <Raymond.A.West@dom.com>
Created By: Raymond.A.West@dom.com

Recipients

nrc.gov
TWGWPO02.HQGWDO01
SECY (SECY)
EJS CC (Edmund Sullivan)

nrc.gov
OWGWPO01.HQGWDO01
WHB CC (Bill Bateman)

nrc.gov
OWGWPO03.HQGWDO01
TLC CC (Terence Chan)

nrc.gov
TWGWPO01.HQGWDO01
WEN CC (Wallace Norris)
GSM CC (Geary Mizuno)

nrc.gov
NRGWIA01.NRGWDO01
["evi@nrc.gov"](mailto:evi@nrc.gov) CC