PR 50 (75FR24323)

🐑 Progress Energy

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Serial: RA-10-016 July 19, 2010

Annette L. Vietti-Cook, Secretary United States Nuclear Regulatory Commission Washington, DC 20555–0001

ATTN: Rulemakings and Adjudications Staff

SUBJECT: Comments on Proposed New and Revised ASME Code Cases; Proposed Rule 75 FR 24324 (May 4, 2010) (NRC-2008-0554)

Dear Ms. Annette L. Vietti-Cook,

Progress Energy appreciates the opportunity to provide the enclosed comments on the proposed new and revised ASME code cases.

Please contact Dana Covill at (919) 546-2631 if you have any questions.

Sincerely,

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Brian McCabe Manager – Nuclear Regulatory Affairs

KMH Enclosure

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DOCKETED USNRC

July 19, 2010 (2:55pm)

OFFICE OF SECRETARY RULEMAKINGS AND ADJUDICATIONS STAFF

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Federal Register NRC Position **Progress Energy Comment** Section Page 24342, third ASME Code Case N-770 provides The conditions proposed by the NRC will not column inspection frequencies and methods for "ensure that limits will not be exceeded and Alloy 82/182 butt welds that are unmitigated PWSCC will not lead to leaks...." nor will any as well as butt welds that have been Code inspection. At best it will provide mitigated for PWSCC by any of several reasonable assurance and low probability of leaks mitigation methods. ASME Code Case Nor ruptures of piping welds. Consider rewording 770, with proposed conditions, resolves the such that rather than using the absolute deficiencies in the ASME B&PV Code, terminology of "ensure that ASME Code-Section XI, inspection requirements for allowable limits will not be exceeded" that the Alloy 82/182 butt welds by providing terms reasonable assurance and low probability be inspection requirements that ensure that used. ASME Code-allowable limits will not be exceeded and PWSCC will not lead to leaks or ruptures of piping welds. Therefore, the NRC proposes to require the implementation of Code Case N-770, with conditions

Enclosure

Federal Register Section	NRC Position	Progress Energy Comment
Page 24342, third column. Also discussed in F(2) on page 24360	The NRC proposes to add a condition (§ 50.55a(g)(6)(ii)(F)(2)) to require that welds mitigated by inlays, cladding, or stress improvement by welding, be categorized as unmitigated welds pending plant-specific NRC review of the mitigation techniques and NRC authorization of an alternative ASME Code Case N-770 Inspection Item for the mitigated weld. ASME Code Case N-770 provides inspection methods and frequencies for welds mitigated by certain specified techniques. Inspections of mitigated welds are performed much less frequently than unmitigated welds. Requirements for most of the mitigation methods are contained in other ASME code cases under development. The NRC has typically approved the application of pressure boundary weld mitigation techniques are applied to welds before they are categorized as mitigated under Code Case N-770.	The NRC has not "typically approved the application of weld mitigation techniques on a case-by-case basis," except for weld overlays, which involve far more analysis than merely applying a corrosion-resistant material between the susceptible material and the reactor coolant. GL 88-01 did not impose any such restrictions on BWR piping application of corrosion-resistant cladding (CRC). Please provide a basis for expanding the scope of mitigated welds that require NRC approval.

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Federal Register	NRC Position	Progress Energy Comment
Federal Register Section 24343 second column and 24361, first column (7)	NRC Position The NRC proposes to add a condition (§ 50.55a(g)(6)(ii)(F)(7)) on welds in Inspection Items G, H, J, and K, (welds mitigated by inlay or cladding) that the ISI surface examination requirements of Table 1 should apply whether the inservice volumetric examinations are performed from the weld outside diameter or the weld inside diameter. Code Case N-770 only requires a surface examination for welds in Inspection Items G, H, J, and K if a volumetric examination is performed from the weld inside diameter surface. A volumetric examination performed from the weld outside diameter surface would not be capable of detecting flaws in an inlay or cladding. This condition is necessary to ensure that weld inlays or cladding are still	Progress Energy Comment If a volumetric exam from the Outside Diameter (OD) determines no cracking in the examination volume, the cladding or inlay must be protecting the underlying susceptible material. The requirement of an ID surface examination with an OD volumetric examination is a hardship for those that have an inspectable OD contour and a qualified procedure for inspecting from the OD.
	ensure that weld inlays or cladding are still	
	performing their intended function of	
	reactor coolant and the underlying Alloy	
	82/182 weld that is susceptible to PWSCC.	

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Federal Register Section	NRC Position	Progress Energy Comment
24343 third column and 24361 first column (7)	All hot leg operating temperature welds in inspection items G, H, J, and K must be inspected each interval.	The resistance to development of SCC of Alloy 690 in a PWR chemistry environment has been excellent, including in steam generator tubing. NRC states that crack growth studies require inspection every 10 years, without regard for resistance to formation of SCC in the first place. Additionally, the 25% sample is consistent with the sampling for Class 1 piping welds of materials considered to be resistant to SCC and other degradation mechanisms. The imposition of a penalty for mitigating the material component of SCC is excessive. At a minimum, This condition should be removed for Categories G and H.
24361, first column (4)	(4) The axial examination coverage requirements of -2500(c) may not be considered to be satisfied unless essentially 100 percent coverage is achieved.	Consider adding "unless relief is requested and approved by the NRC." This change would allow utilities to take credit for the exams required to meet MRP-139 and Section XI, when relief for not obtaining required Code coverage was approved by NRC.
24361, third column (13)	Twenty-five percent of this population shall be added to the ISI Program in accordance with2410 and shall be examined the shorter of once each inspection interval or the life of the overlay.	Please verify that if the overlayed weld is replaced in accordance with IWA-4000 before its end of life, inspection is not required. Or, propose a condition modifying Note 10, last sentence as follows: "Those welds not included in the 25% sample shall be examined prior to the end of the mitigation evaluation period if they will remain in service beyond that time."

Federal Register Section	NRC Position	Progress Energy Comment
NA	Currently Code Case N-770, Table 1, Inspection Item "D" says Uncracked butt welds mitigated by stress improvement, has a requirement in the second sentence of	This provision creates a penalty when compared to other mitigation categories which allows all of the population to be performed at the same time.
	"Extent and Frequency of Examination" to spread out the population of mitigated welds in years 3 through 10 following applications of the mitigation.	Consider changing to replace the first two sentences in the "Extent and Frequency of Examination" column of inspection Item "D" with the following sentence: "Examine all welds no sooner than the third refueling outage and no later than 10 years following stress improvement application."
		The basis for this proposed change is as follows: The current wording in Table 1. "Category D
	· · ·	Uncracked butt weld mitigated with stress
		improvement, Extent and Frequency of Examination " creates an unnecessary penalty
		(compared to other mitigation categories) for
		dissimilar metal piping welds that are mitigated
		by stress improvement by spreading the examination
		through years 3 through 10. This provision was
		originally considered as consistent with the
		ASME Code Section XI, Table IWB-2412-1 and
1		end of interval, which are only applicable for RV
		Nozzle to safe end welds, Category B-F welds
		item B5.10 and B5.20. However, when the
		population is applied to small quantity of
		miligated welds other than the KV nozzles, it

results in multiple mobilizations with possibly 1 weld per inspection period. The multiple mobilizations for these uncracked welds that are mitigated by stress improvement, creates an unrecognized inequity in N-770 and N-770-1 when compared to uncracked welds that are not mitigated (and remain in a larger population) as well as cracked welds that are mitigated by the same stress improvement method (Category E). This inequity is clear when recognizing that all other categories of mitigated welds, Categories E-K, do not require the spreading of the mitigated population for the 1st exam after mitigation. The spreading out of the population of mitigated welds in Category D as currently written is considered punitive in the first interval when compared to inspection without mitigation.

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Federal Register Section	NRC Position	Progress Energy Comment
Page 24344 first column and 24361, second column (11)	The NRC proposes to add a condition (§ 50.55a(g)(6)(ii)(F)(11)) to require that in applying Measurement or Quantification Criterion I–7.1 of Appendix I, an analysis be performed using IWB–3600 evaluation methods and acceptance criteria to verify that the mitigation process will not cause any existing flaws to grow. Measurement or Quantification Criterion I–7.1 permits the growth of existing flaws in welds mitigated by stress improvement. This is an inappropriate provision since the process of mitigating by stress improvement is intended to prevent growth of existing flaws which could lead to leakage or rupture of the weld. This condition is necessary to ensure that stress improvement of welds with existing flaws is an effective mitigation technique consistent with the inspection frequency in the code case.	This is an excessive imposition of conservatism. The fundamental basis of IWB-3600 analyses is to demonstrate that the flaws will not exceed Code acceptance criteria before the next inspection, thereby minimizing the probability of leakage or rupture. If a process can be applied to slow the growth such that an additional cycle can be justified, then major repair activities can be performed in a planned fashion over that cycle, resulting in better planning, lower dose, and time to obtain materials, if necessary. Recommend deleting this provision.

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Rulemaking Comments

From:	Heffner, Ken [ken.heffner@pgnmail.com]
Sent:	Monday, July 19, 2010 2:22 PM
То:	Rulemaking Comments
Subject:	Progress Energy Comments on Proposed New and Revised ASME Code Cases; Proposed Rule 75 FR 24324 (May 4, 2010) (NRC-2008-0554)
Attachments:	10-016 McCabe - NRC Letter - Comments on Proposed New and Revised ASME Code Cases.pdf

Progress Energy is pleased to submit the attached comments on the subject Federal register Notice.

Kenneth M. Heffner Lead Engineer Progress Energy Nuclear Regulatory Affairs 919-546-5688 Voicenet 770-5688 mailto:ken.heffner@pgnmail.com Received: from mail1.nrc.gov (148.184.176.41) by OWMS01.nrc.gov (148,184,100,43) with Microsoft SMTP Server id 8.1.393.1; Mon, 19 Jul 2010 14:25:29 -0400 X-Ironport-ID: mail1 X-SBRS: 2.9 X-MID: 18520255 X-fn: 10-016 McCabe - NRC Letter - Comments on Proposed New and Revised ASME Code Cases.pdf X-IronPort-AV: E=Sophos;i="4.55,227,1278302400"; d="pdf"?scan'208,217";a="18520255" Received: from amsg00020.progress-energy.com (HELO amsg0002.progress-energy.com) ([159.110.252.48]) by mail1.nrc.gov with ESMTP: 19 Jul 2010 14:25:24 -0400 X-AuditID: 9f6efc20-b7c65ae000001d46-14-4c4496b8715d Received: from Ix000096.oak.zone1.progress-energy.com (Unknown Domain by amsg0002.progress-energy.com (Progress Energy SMTP) [10.80.107.162]) Gateway) with SMTP id 79.37.07494.886944C4; Mon. 19 Jul 2010 14:17:29 -0400 (EDT) Received: from localhost (localhost.localdomain [127.0.0.1]) by Ix000096.oak.zone1.progress-energy.com (postfix) with ESMTP id 762B12CB7C for <Rulemaking.Comments@nrc.gov>; Mon, 19 Jul 2010 14:25:23 -0400 (EDT) Received: from WN000018.oak.zone1.progress-energy.com (mail.oak.zone1.progress-energy.com [10.80.136.210]) bv Ix000096.oak.zone1.progress-energy.com (postfix) with ESMTP for <Rulemaking.Comments@nrc.gov>; Mon, 19 Jul 2010 14:25:22 -0400 (EDT) Received: from WN000075.oak.zone1.progress-energy.com ([fe80::8ca5:d878:44c8:676e]) by WN000018.oak.zone1.progress-energy.com ([::1]) with mapi; Mon, 19 Jul 2010 14:25:21 -0400 From: "Heffner, Ken" <ken.heffner@pgnmail.com> To: "Rulemaking.Comments@nrc.gov" <Rulemaking.Comments@nrc.gov> Date: Mon. 19 Jul 2010 14:22:17 -0400 Subject: Progress Energy Comments on Proposed New and Revised ASME Code Cases; Proposed Rule 75 FR 24324 (May 4, 2010) (NRC-2008-0554) Thread-Topic: Progress Energy Comments on Proposed New and Revised ASME Code Cases; Proposed Rule 75 FR 24324 (May 4, 2010) (NRC-2008-0554) Thread-Index: Acsnb7/rCyxzsE+tSiigcLyg9eC28g== Message-ID: <B3FC14C01669564DBF3286717FE2111F0DA747D1E5@WN000075.oak.zone1.progress-en ergy.com> Accept-Language: en-US Content-Language: en-US X-MS-Has-Attach: yes X-MS-TNEF-Correlator: acceptlanguage: en-US Content-Type: multipart/mixed; boundary="_004_B3FC14C01669564DBF3286717FE2111F0DA747D1E5WN000075oakzo " MIME-Version: 1.0

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