



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

June 19, 2007

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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
ATTN: Rulemakings and Adjudications Staff

Gentlemen:

TENNESSEE VALLEY AUTHORITY (TVA) - COMMENTS ON "INDUSTRY
CODES AND STANDARDS; AMENDED REQUIREMENTS" - PROPOSED RULE
(VOL. 72 FR 16731-16741)

This letter provides TVA's comments on the subject petition for rulemaking.

TVA endorses the comments made on behalf of the nuclear industry by letters from Kenneth R. Balkey, Vice President, American Society of Mechanical Engineers, Nuclear Codes and Standards and Gary Lofthus, Chairman, Performance Demonstration Initiative dated June 13, 2007 and May 11, 2007, respectively. To avoid unnecessary duplication, those comments will not be repeated in our letter.

The enclosure provides additional specific comments from TVA.

If you have questions regarding our comments, please contact Rob Brown at (423) 751-7228.

Sincerely,

A handwritten signature in black ink that reads "Beth A. Wetzel".

Beth A. Wetzel
Manager, Corporate Licensing
and Industry Affairs

Enclosure
cc: See Page 2

Template = SECY-067

SECY-02

Enclosure

Proposed Amendment Provision	Comments:
<p>Proposed rule:</p> <p>For 10 CFR 50.55a(g)(6)(ii):</p> <p><i>“(D) Reactor Vessel Head Inspections.</i></p> <p>(1) All licensees of pressurized water reactors shall augment their inservice inspection program by implementing ASME code Case N-729-1 subject to the conditions specified in paragraphs (g)(6)(ii)(D)(2) through (6) of this section.</p> <p>(2) Item B4.40 of</p> <p>(3) Instead of fulfilling the specified ‘examination method’ requirements for volumetric and surface examinations of Note 6 in Table 1, the licensees shall perform a volumetric or surface examination or both of essentially 100 percent of the required volume or equivalent surfaces of the nozzle tube, as identified in Fig. 2 of ASAME Code Case N-729-1. A surface examination must be performed on all J-groove welds. If a surface examination is substituted for a volumetric examination on a portion of a penetration nozzle that is below the toe of the J-groove weld (Point E on Fig. 2 of ASME Code Case N-729-1), the surface examination must be of the inside and outside wetted surfaces of the penetration nozzle not examined volumetrically.</p> <p>(4) Ultrasonic examinations</p>	<p>Inclusion of a requirement to perform a mandatory surface examination on all J-groove welds essentially eliminates the option for licensees to conduct the examinations of the reactor pressure vessel (RPV) heads in accordance with Code Case N-729-1, Table 1, Footnote 6, Level 1, 2 or 3 allowed examination schemes. For example, the Level 3 scheme of ASME Code Case N-729-1 would allow use of volumetric examinations of $\geq 95\%$ of the examination volume of the nozzle tubes in the aggregate, or surface examination of $\geq 95\%$ of the required examination area of the nozzle tubes and the J-groove welds, in the aggregate, or a combination of the two.</p> <p>For PWR plants with installed RPV heads manufactured at the Rotterdam Dockyard Company fabrication facilities, the mandatory surface examinations of all the J-groove welds will be specifically onerous. The J-groove weld surfaces on the Rotterdam fabricated RPV heads were left in the “as-welded” condition and, as an acceptable and usual practice (at the time), were not ground smooth for the purpose of performing surface examinations. Surface examinations performed on these rough surfaces have a high potential of resulting in uncertain results, or false indications. While performance of the surface examinations on this type of surface can in some cases be successfully performed; any such performance, by the nature of the J-groove weld’s surface conditions, requires increased time to perform the exam. False indications, or just doubt about the results of the initial examination, will lead to the need for repeated examinations, further investigations with alternate nondestructive examination (NDE) methods, or the potential need to grind the weld smooth as part of an investigation and repair plan. All of these consequences increase the time for performance of the examinations and therefore increase the radiation exposures of personnel and the potential for contamination. These increased burdens will, in many cases, most likely prove to be unnecessary and unwarranted.</p> <p>Performance of the RPV head penetration tubes and the J-groove weld areas examinations can be adequately accomplished through the provisions of the Code Case’s Table 1, Footnote 6, Level 1, 2, or 3 NDE requirement method schemes, or with the proposed rule requirements to use the volumetric and/or surface examinations, or combined processes, without having to impose the surface examination of all the J-groove weld areas. It is, however, recognized that the use of the surface examination techniques is an appropriate tool in the investigation of indications that may have been found during the conduct of the required volumetric examinations. ASME Code Case N-729-1 provides for the use of such Supplemental Examinations in paragraph -3200. Indeed, the</p>

Proposed Amendment Provision	Comments:
	<p>performance of a surface examination of an associated J-groove weld area has been a practice in cases where indications have been found during volumetric examination of specific penetration tubes. A surface examination of a specific J-groove weld area should only need to be performed where the performance of a volumetric examination is not practical because of the penetration configuration; and, additionally at the most, where degradation or wastage, or indications are detected during the volumetric examinations of the penetration tubes. The code case NDE schemes; with the option to perform either volumetric or surface examinations, or a combination of both, on the penetration tubes and the J-groove weld areas, provide an acceptable level of quality and safety.</p> <p>Therefore, it is recommended that the proposed rule change adopt the use of Code Case N-729-1 as it is currently written, without added conditions on its use.</p>