



April Rice
Manager
New Nuclear Licensing

May 3, 2016
NND-16-0130
10 CFR 50.55a

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3
Docket Numbers 52-027 and 52-028
Request for Alternative: Preservice Inspection Requirements for Core Makeup Tanks

Reference: 1. Southern Nuclear Operating Company, Vogtle Electric Generating Plant Units 3 and 4, Request for Alternative: Preservice Inspection Requirements for Core Makeup Tanks (VEGP 3&4-PSI-ALT-04) (ND-16-0282), dated March 18, 2016.

Pursuant to 10 CFR 50.55a(z)(1), South Carolina Electric & Gas Company (SCE&G), acting on behalf of itself and the South Carolina Public Service Authority (Santee Cooper), hereby requests NRC authorization to use an alternative to the requirements of ASME Section XI, IWB-2500, of the ASME Boiler and Pressure Vessel Code, 2007 Edition through 2008 Addenda. The ASME Code Class 1 Core Makeup Tanks (CMTs) are not addressed in the current ASME code of record. This request proposes the use of ASME Section XI requirements for pressurizers to perform inspections of the CMTs. The proposed request for alternative is applicable to preservice inspection of CMTs.

The details of the 10 CFR 50.55a(z)(1) request are contained in the enclosure. Approval is requested by January 30, 2017, to support inspections of the CMTs.


This request is consistent in technical content with Southern Nuclear Operating Company (SNC) alternative request VEGP 3&4-PSI-ALT-04 submitted March 18, 2016 (Reference 1).

This letter contains no regulatory commitments. Should you have any questions regarding this letter, please contact Justin Bouknight, Licensing Supervisor, by telephone at (803) 941-9828, or by email at justin.bouknight@scana.com

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 3rd day of May 2016.

Sincerely,


April Rice
Manager
New Nuclear Licensing

BB/ARR/bb

Enclosure: Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3 – Proposed Alternative
in Accordance with 10 CFR 50.55a(z)(1) Regarding Preservice Inspection
Requirements for Core Makeup Tanks

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NND-16-0130

Enclosure

Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3

**Proposed Alternative in Accordance with 10 CFR 50.55a(z)(1)
Regarding Preservice Inspection Requirements for Core Makeup Tanks**

(Enclosure consists of 6 pages, including this cover page.)

Plant Site-Unit:	Virgil C. Summer Nuclear Station (VCSNS) – Units 2 and 3
Interval Dates:	Applies to Preservice Inspection (PSI)
Requested Date for Approval:	Approval is requested by January 30, 2017 to support the performance of the VCSNS Section XI PSI of the Core Makeup Tanks (CMTs).
ASME Code Components Affected:	The Westinghouse AP1000® design includes two CMTs per unit. The CMTs provide RCS makeup and boration for LOCAs and non-LOCAs when the normal makeup system is unavailable or insufficient. These tanks are designed and fabricated to the ASME Boiler and Pressure Vessel (B&PV) Code, Section III as Class 1 components. The CMTs are located inside containment at an elevation slightly above the reactor coolant main loop piping. The two CMTs are vertical, cylindrical tanks with hemispherical upper and lower heads made of carbon steel, clad with stainless steel (see Figures 1 & 2).
Applicable Code Edition and Addenda:	ASME (B&PV) Code, Section XI, 2007 Edition through 2008 Addenda
Applicable Code Requirements:	The CMT is a Class 1 component specific to the Westinghouse AP1000® passive design; therefore, the ASME Code has not previously addressed this component.
Reason for Request:	The 2007 Edition through 2008 Addenda of ASME Section XI does not describe requirements for the examination of the CMT. Therefore, this alternative will be used to satisfy the PSI requirements.

Proposed Alternative and Basis for Use:	<p>This proposed alternative is requesting the use of the ASME Section XI examination requirements stipulated in the 2007 Edition through 2008 Addenda of ASME Section XI for the Pressurizer as denoted in Table IWB-2500 for Categories B-B, B-D, B-F, B-G-2, B-K and B-P to be used for the Core Makeup Tanks.</p> <p>Both the Pressurizer and Core Makeup Tanks are Class 1 Vessels designed, fabricated, and examined in accordance with ASME Section III, Subsection NB requirements. Both are operated at Reactor Coolant System nominal operating pressure and are fabricated of similar materials (SA-508 Gr. 3, Class 1 or 2). The proposed examinations shown in Table 1 and Figures 1 and 2 of this enclosure are consistent with IWB-2500 requirements for the pressurizer. Application of the pressurizer PSI requirements will assure the pressure retaining integrity of the CMTs is maintained in accordance with ASME Section XI requirements and is consistent with the requirements of 10 CFR 50.55(a).</p> <p>Based on the information above and as applied in Table 1, SCE&G concludes that the proposed examinations provide an acceptable level of quality and safety.</p>
Duration of Proposed Alternative:	The duration of the proposed alternative is the Section XI preservice inspections for VCSNS Units 2 and 3.
References:	<ol style="list-style-type: none">1. ASME (B&PV) Code, Section XI, 2007 Edition through 2008 Addenda.2. VCSNS Units 2&3 UFSAR (plant specific Design Control Document (DCD), Subsection 5.4.13, 6.3.2.1.2, and 6.3.2.2.1).
Status:	Awaiting NRC authorization.

FIGURE 1 – CMT Upper Head

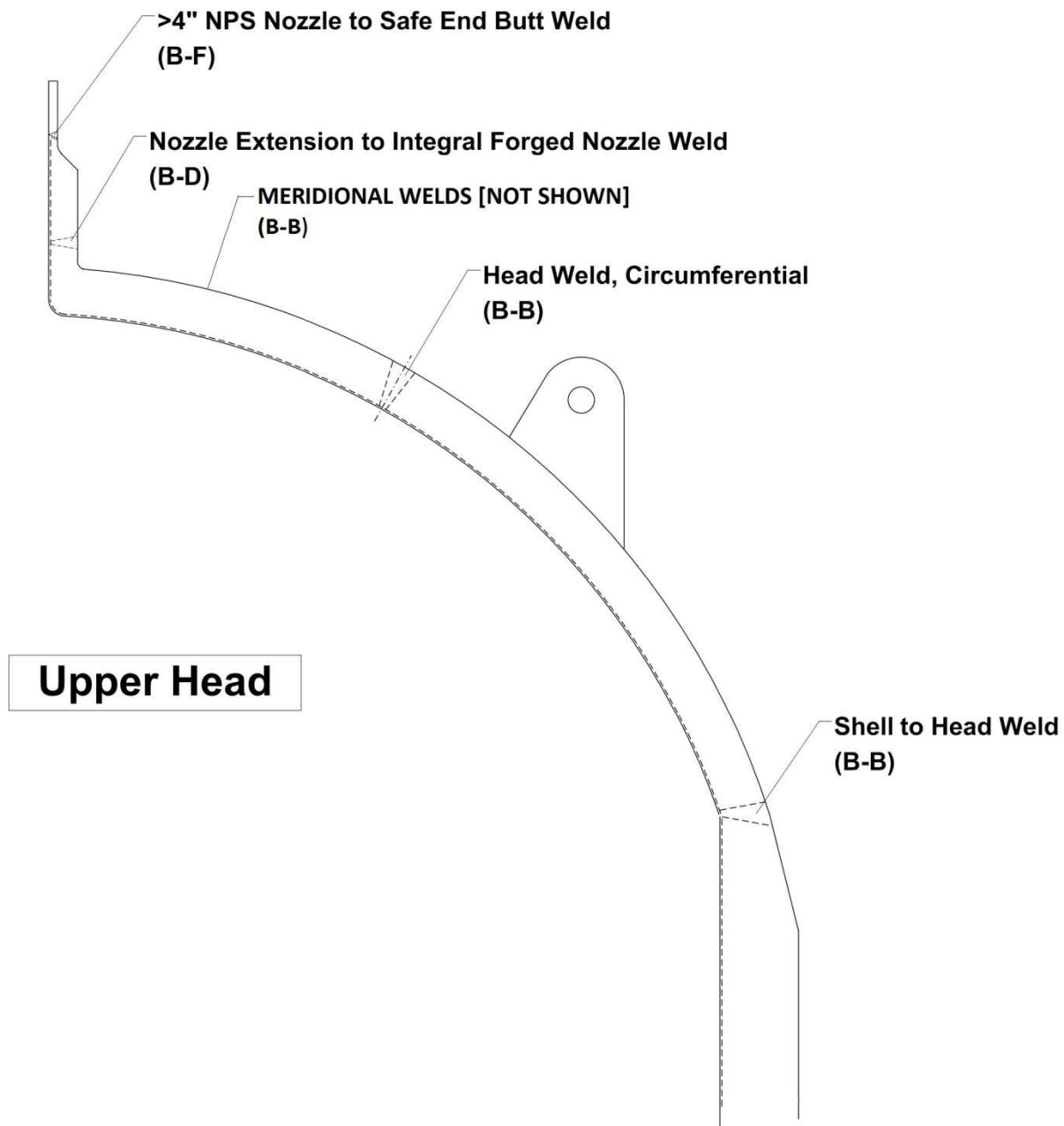


FIGURE 2 – CMT Lower Head

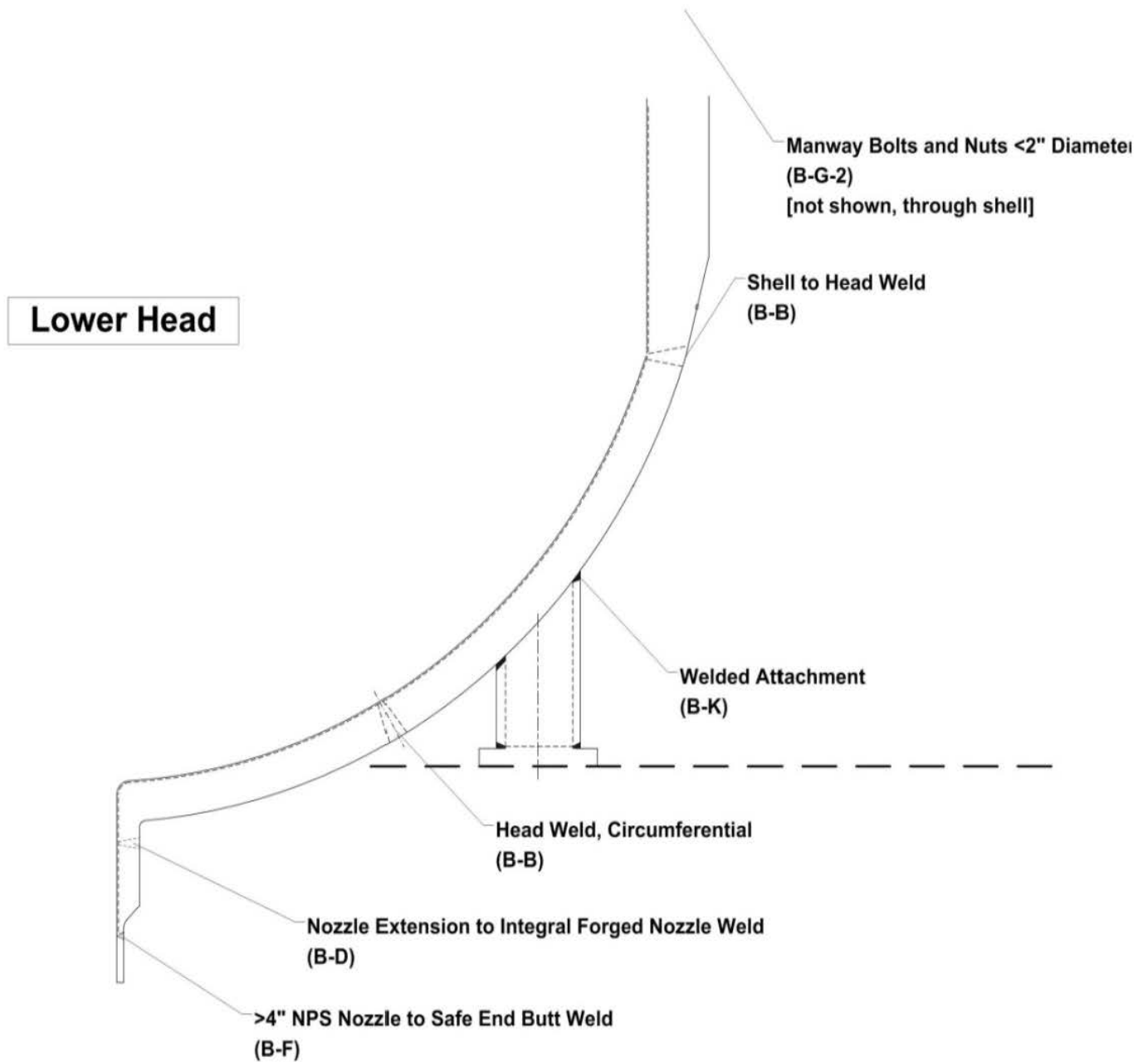


Table 1

Examination Category	Item No.	Parts Examined	Examination Method	Comments
B-B , PRESSURE RETAINING WELDS IN VESSELS OTHER THAN REACTOR VESSELS	B2.10	Shell-to-Head	Volumetric	2 per Vessel N/A
	B2.11	Circumferential		
	B2.12	Longitudinal		
	B2.20	Head Welds	Volumetric	2 per Vessel
	B2.21	Circumferential		8 per Vessel
	B2.22	Meridional		
B-D , FULL PENETRATION WELDED NOZZLES IN VESSELS	B3.110	Nozzle-to-Vessel Welds	Volumetric	2 per Vessel
B-F , PRESSURE RETAINING DISSIMILAR METAL WELDS IN VESSEL NOZZLES	B5.40	NPS 4 (DN 100) or Larger Nozzle-to-Safe End Butt Welds	Volumetric and Surface	2 per Vessel
B-G-2 , PRESSURE RETAINING BOLTING, 2 in. AND LESS IN DIAMETER	B7.20	Bolts, studs and Nuts	Visual, VT-1	0 bolts, 20 studs, 20 Nuts per Vessel
B-K , WELDED ATTACHMENTS FOR VESSELS, PIPING, PUMPS, AND VALVES	B10.10	Welded attachments in Pressure Vessels	Surface	8 per Vessel Note 7 in Table IWB-2500-1 applies
B-P , ALL PRESSURE RETAINING COMPONENTS				Pressure Testing will be performed in accordance with ASME Section III for Construction prior to commercial operations.