



April R. Rice  
Manager  
New Nuclear Licensing

August 28, 2015  
NND-15-0457  
10 CFR 52.99(c)(1)

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

Subject: Virgil C. Summer Nuclear Station (VCSNS) Unit 3  
Combined License No. NPF-94  
Docket Number 52-028  
ITAAC Closure Notification for ITAAC 2.1.03.11 [Index No. 86]

Attachments: References

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) in accordance with 10 CFR 52.99(c)(1) of the completion of Virgil C. Summer Nuclear Station (VCSNS) Unit 3 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.1.03.11 for verifying that the Reactor Pressure Vessel (RPV) beltline material has a Charpy upper-shelf energy of no less than 75 ft-lb in accordance with 10 CFR 52.99(c)(1). The closure process for this ITAAC is based on the guidance described in NEI 08-01 (Reference 1), which was endorsed by the NRC in Regulatory Guide 1.215.

### **ITAAC Statement**

#### **Design Commitment:**

*11. The RPV beltline material has a Charpy upper-shelf energy of no less than 75 ft-lb.*

#### **Inspections, Tests, Analyses:**

*Manufacturing tests of the Charpy V-Notch specimen of the RPV beltline material will be performed.*

#### **Acceptance Criteria:**

*A report exists and concludes that the initial RPV beltline Charpy upper-shelf energy is no less than 75 ft-lb.*

### **ITAAC Determination Basis**

Manufacturing Tests were performed to determine that the RPV beltline material has a Charpy upper-shelf energy of no less than 75 ft-lb. Testing was performed in accordance with the technical requirements of ASME Code Section III for Class 1 components on the RPV beltline material. The upper-shelf energy was determined by performing Charpy V-notch testing on the beltline materials, which include the upper shell, lower shell, and transition ring forgings, and the weld material used to join the upper shell to the lower shell, and to join the lower shell to the transition ring.

The Charpy V-notch test data was used to develop Charpy V-notch impact curves and determine the upper-shelf energy for each forging and each lot of weld material. As documented in the Certified Material Test Reports contained within the V.C. Summer Unit 3 Reactor Vessel Quality Release and Certification of Conformance (Reference 2), the upper-shelf energy of the RPV beltline materials ranged from a minimum of 163 ft-lb to a maximum of 210 ft-lb, and is greater than the acceptance criteria of 75 ft-lb.

The V.C. Summer Unit 3 Reactor Vessel Quality Release & Certificate of Conformance (Reference 2) exists and concludes that the initial RPV beltline Charpy upper-shelf energy is no less than 75 ft-lb.

### **ITAAC Finding Review**

In accordance with plant procedures for ITAAC completion, SCE&G performed a review of all findings pertaining to the subject ITAAC and associated corrective actions. This review found that there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.1.03.11 (Reference 3) and available for NRC inspection.

### **ITAAC Completion Statement**

Based on the above information, SCE&G hereby notifies the NRC that ITAAC 2.1.03.11 was performed for VCSNS Unit 3 and that the prescribed acceptance criteria are met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

We request NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99(e)(1).

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If there are any questions, please contact Nick Kellenberger at (803) 941-9834.

Sincerely,

A handwritten signature in cursive script that reads "April Rice".

April R. Rice  
Manager  
Nuclear Licensing  
New Nuclear Deployment

NK/AR/vk

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**References (available for NRC inspection):**

1. NEI 08-01, Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52
2. VS3-MV01-VQQ-001, AP1000 V.C. Summer Unit 3 Reactor Vessel Quality Release and Certification of Conformance
3. ITAAC 2.1.03.11 Completion Package