

**Question 1: Why did you remove multiple coupons from Unit 2 but only one, in 2002, from Unit 1?**

**Answer:** Thanks for the opportunity to clarify. For Diablo Canyon Unit 1, to date, the licensee has withdrawn seven coupons and tested three of them (the other four are stored for future use if needed). The most recent test was completed in 2002, as previously discussed. Additionally, the previously referenced NRC safety evaluation ([ML120330497](#)) dated March 2, 2012, discusses the successful completion of all three rounds of neutron embrittlement coupon testing that were required under 10CFR50 Appendix H for Unit 1 through the end of its operating license. For comparison, six coupons were withdrawn from Unit 2, four of which were tested in accordance with the 10CFR50 Appendix H testing requirements for that unit.

**Question 2: I appreciate the answers you sent about Palisades; they clarify some of my questions about Diablo Canyon. But these were submitted 9 years ago. I would assume that the NRC has done much more work on embrittlement since 2013. Is that correct?**

**Answer:** Yes, the NRC has continued to monitor and review neutron embrittlement testing conducted in accordance with 10CFR50 Appendix H, at other nuclear plants across the country. There is no new information since the 2012/2013 timeframe that changes our assessment that the Unit 1 and 2 pressure vessels will maintain their integrity through the end of the Diablo Canyon operating licenses without any additional coupon testing needed. We continue to have confidence that both plants can be operated safely through 2024 and 2025.

The NRC continues its efforts associated with reactor pressure vessel integrity and embrittlement and a summary of those efforts can be found in [NUREG-1925](#), "Research Activities," Revision 4. Furthermore, the NRC held a workshop in 2019 with one of the focus areas on reactor pressure vessel embrittlement at high fluence levels. The NRC presentations during this workshop can be found in [RIL 2020-12](#), "International Workshop on Age-Related Degradation of Reactor Vessels and Internals."

More recently, the NRC issued [SECY-22-0019](#): Rulemaking Plan for Revision of Embrittlement and Surveillance Requirements for High-Fluence Plants in Long-Term Operation in 2022. This document provides additional references to the NRC's effort associated with reactor pressure vessel embrittlement. The focus of this SECY paper is on nuclear power plants that decide to pursue long-term operation and exceed a neutron fluence for the reactor pressure vessel of  $6 \times 10^{19} \text{ n/cm}^2$ . In comparison, the projected neutron fluence for reactor pressure vessels at Diablo Canyon Unit 1 and 2 after 40-years of operation are approximately  $1.26 \times 10^{19} \text{ n/cm}^2$  and  $1.40 \times 10^{19} \text{ n/cm}^2$ , respectively.