

Good afternoon! I am reaching out to address a few questions you recently raised to the Diablo Canyon Acting Senior Resident Inspector. The questions include:

- **Did the licensee pull a coupon from the Unit 1 reactor pressure vessel and get it tested for neutron embrittlement during the last refueling outage?**
- **When was the last Unit 1 coupon withdrawn and what were the test results?**
- **Are there any reactor vessel “coupons” still in the Unit 1 vessel that can be sent to laboratories for neutron embrittlement study?**
- **When PG&E withdrew their license renewal application in 2018, was it done so “without prejudice?”**

Answer – The licensee did not withdraw a Unit 1 neutron embrittlement coupon during the last refueling outage in October 2021 as originally planned because of their decision to shut down when the operating license for the unit expires in 2024. They followed an NRC approved process to defer withdrawal since the coupon test would only have been required to support license renewal. If at a future time, the plant decides to pursue license renewal, they would need the NRC to approve a new test schedule for the coupon as part of the license renewal process. The licensee’s completion of the Unit 1 coupon testing requirements for their operating license is discussed in an NRC safety evaluation. ([ML120330497](#))

The most recently withdrawn Unit 1 coupon – the last one that was required for the original operating license – was pulled on May 13, 2002, and the test results were in line with the licensee’s calculated predictions. Those test results can be found in [ADAMS](#) using the following ML number: [ML031400352](#). The coupons within the reactor vessel are located closer to the core than the inner vessel wall, and all are positioned differently, depending on how many years of neutron irradiation levels the licensee needs to expose them to. The coupon withdrawn in 2002 was positioned so that it absorbed the equivalent of 40 years of neutron dose at the time it was withdrawn. As described in 10CFR 50 Appendix H, this allows the licensee to measure the future effects of neutron embrittlement and any consequent loss of fracture toughness to the reactor vessel. There are 5 coupon capsules that remain in the Unit 1 vessel.

The licensee has already completed their 10CFR50 Appendix H required coupon surveillance program for Unit 2, having withdrawn multiple coupons that provide neutron embrittlement testing data for the reactor pressure vessel that is applicable for 60 years of operation.

Regarding your final question, the Diablo license renewal application was withdrawn “without prejudice.” They would be eligible to resubmit the application, and if they did, the NRC would have to review and take action as appropriate. ([ML18066A937](#) and [FRN 2018-08366](#))