

Is there a leak in the spent fuel pool at Indian Point? How was it discovered?

Spent fuel pool water has been observed seeping from a spent fuel pool concrete support wall. Analysis of samples indicates that the seeping water has some of the same radioactive constituents and boron content as spent fuel pool water. Accordingly, Entergy is treating the current seepage as an active leak while continuing its investigation.

Entergy has been conducting excavation of the Fuel Storage Building Loading Bay adjacent to the south wall of the Spent Fuel Pool (SFP) in preparation for installation of a gantry crane required to support the Interim Spent Fuel Storage Installation Project, i.e., dry cask storage of spent fuel. Early in the excavation effort, Entergy discovered that a floor drain under the concrete loading bay floor was degraded and resulted in some localized low level contamination of adjacent soil. The affected soil was subsequently removed and controlled as radioactive waste. As the excavation continued, a moist crack in the spent fuel wall was observed when a portion of the south wall was uncovered in late August. Upon completion of radiological analysis, Entergy determined that the crack exhibited some contamination, and informed the NRC resident inspector of its observation on September 1. On September 8 and 9, NRC regional construction specialists examined the cracked area and preliminarily determined that structural integrity of the spent fuel pool was not adversely affected.

As further excavation progressed, other cracks (characterized as shrinkage cracks) were uncovered. In this period, NRC initiated other actions to monitor and gather information to evaluate the significance of the cracks. A second moist crack was uncovered on September 12. On September 13, an NRC Senior Radiation Specialist initiated an on-site review of the condition, to assess the potential impact on public health and safety and the environment. The preliminary review indicated that the condition did not appear to pose any actual adverse impact; and that the licensee was taking appropriate actions to understand and characterize the nature of the cracks and the seepage.

The licensee's efforts to better understand and characterize the condition included the development of methods to collect the moisture for analysis. By continuing improvements in moisture collection technique, the licensee has been able to collect varying amounts of liquid from these cracks, most recently (as of October 5, 2005) ranging from about 1 to 2 liters per day. Previously, Entergy was collecting 500 milliliters to about 1.3 liter per day.