

# REQUEST FOR ADDITIONAL INFORMATION 201-2199 REVISION 1

2/24/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 09.01.03 - Spent Fuel Pool Cooling and Cleanup System

Application Section: 9.1.3

QUESTIONS for Component Integrity, Performance, and Testing Branch 1 (AP1000/EPR Projects)  
(CIB1)

09.01.03-4

## Requested Information

What process does the applicant have to clean the top surface of the SFP water in order to maintain clarity and clean impurities that might rise above the SFPCS inlet?

## Background

GDC 61 requires that impurities be eliminated and SRP Section 9.1.2 states that the criteria in ANSI/ANS-57.2 are adequate to meet this requirement. GDC 14 requires the integrity of the RCPB be maintained by controlling impurities that may cause degradation in the RCS. The EPRI guidelines are mentioned in SRP 9.3.4 as a means of satisfying this requirement. ANSI/ANS-57.2 recommends that water clarity be maintained so that fuel assembly identification can be read underwater. The EPRI guidelines also suggest turbidity limits, and indicate (p. B-16) that skimmers are an important part of the SFP purification to maintain optical clarity. The DCD mentions that inlet to the SFPCS is 4 ft below the minimum water level, but makes no mention of skimmers or any other equipment to clean the top layer of SFP water.

09.01.03-5

## Requested Information

What water purity evaluation and processing would be undertaken prior to refueling operations?

## Background

GDC 14 requires the integrity of the RCPB be maintained by controlling impurities that may cause degradation in the RCS. The EPRI guidelines are mentioned in SRP 9.3.4 as a means of satisfying this requirement. The EPRI guidelines suggest monitoring of additional impurities (Ca, Mg, Al, Fe, as listed on p. B-12) in preparation for refueling operations. However, the DCD makes no mention of such sampling or limits for these quantities.