

Summary of the UMD Visit of 2-18-2011 to discuss responses to Technical Specification (TS) RAIs

RAI-4

You proposed to provide a response to this RAI by adding a technical specification for annual visual inspection of 20% of core fuel elements. A different sample will be chosen each year. This will result in a complete core inspection in five years.

RAI-6

You proposed to provide a response to this RAI by adding an LCO for the maximum pool temperature based on the day to day operations of MUTR. In response to an earlier question on the reactor coolant (RAI-19) you had stated that a limit of 40 C on the pool temperature was set to avoid damage to the ion exchange resin that is used to maintain water conductivity within acceptable limits.

The GA calculation on pool temperature terminates at approximately 93 C due to calculation instabilities. There is a general concern on the impact of cycling stresses from low to high pool temperatures on the aluminum pool liners fatigue cracking and resulting leaks. This has already occurred at one facility, the University of Wisconsin. See their response to RAI in ADAMS Accession Number ML101690137. As described in the regulations 10CFR 50.36(a)(2), LCOs are the lowest functional capability or performance levels of equipment required for safe operation of a facility. An example of these LCOs are identified in both AFRRI and Dow TRIGA facilities TS (ML041800068 and ML092150443 respectively)

RAI-8, RAI-10 and RAI-12

You proposed to respond to this RAI by providing radiological analyses discussing dose calculations; the first with the facility ventilation on and the second with the ventilation off. The two scenarios of interest are (i) MHA and (ii) routine operations. For each of these scenarios you will calculate and provide values for (a) occupational dose, (b) dose to maximally exposed member of the public and (c) dose to exposed member of the public located in the areas adjacent to the MUTR (classroom, outer wall, etc.). In our discussions, you stated that as part of your analysis, you will describe how you will meet 10CFR20 as part of your routine effluent discharge and whether the operation of the facility ventilation system is required during normal operations and accident situations.

An example is identified in a response from the University of Wisconsin, ADAMS Accession Number ML091110549.

RAI-23

IFE calibration method should test whether a signal is generated when the setpoint is reached. This could be accomplished by an simulated electronic signal to the circuitry. Calibration at low, equilibrium temperature does not seem to test the scram circuit.

Non-TS RAI-2

You proposed to provide the calculation of the departure from nucleate boiling ratio (DNBR) for the hottest location in the MUTR core. You informed the NRC that GA should be able to provide you with this information.