NRC comments to the UMD RAI responses dated 1/31/2011

To be discussed during the NRC visit to UMD on 2/18/2011

RAI 4: May consider yearly visual inspection of part of the core. Other parts of the core could be inspected in subsequent years.

RAI 6: The T-H analysis performed by GA indicates that the fuel temperatures are acceptable even at high pool temperatures. For natural circulation, the calculation terminates at a pool temperature of 93 C. There doesn't seem to be an analysis showing that the reactor can indefinitely operate safely by rejecting heat into the building. As such an administrative procedure instructing the operator to shut down the reactor on increasing pool temperature beyond a certain temperature limit might be required. It is also not clear what are the conditions and procedures in place for placing the primary coolant heat exchanger in service.
Please address the stress placed on the structures and components (especially the pool) by the potential for temperature swings between 20 and 100 C (boiling).

RAI 8: Doses with ventilation system off should be evaluated.

RAI 10: The impact of building leakage and doses to the surrounding areas should be evaluated since the building is not air tight.

RAI 12: The impact of building leakage and doses to the surrounding areas should be evaluated since the building is not air tight. In addition, your response to RAI 12 states that TS 3.5.1 will be revised to reflect these conditions (confinement not airtight). However, you do not provide the revision.

RAI 15: It is unclear what an exhaust monitor reading 10mr/hr means as far as releases and doses to the public are concerned.

RAI 27: TS 4.5 refers to ventilation system shutdown and personnel evacuation. Provide the time dependent analysis, referenced in TS 4.5, which indicates that personnel would have sufficient time to evacuate. What is this time? Does reference to a major fuel element failure refer to the MHA?

RAI 29: Your ventilation system off appears to be inconsistent with your calculation of gaseous effluents. Dose calculations need to identify the maximum exposed member of the public (whenever that person happens to be – out side or in the engineering building) and nearest permanent residence.

RAI 32: Your answer is specific to existing storage racks and is fine. TS 5.4 is written to accommodate other storage arrays. There is no reference to k-effective and cooling calculations for the other storage arrays.

RAI 41: TS 6.4.2 states that written procedures… shall be in effect for…installation or removal of fuel elements, control rods, experiments, experiment approval, and experimental facilities. You may consider adding your response to RAI 41, namely MUTR is licensed to operate with only one configuration, which precludes fuel movements within the reactor. Therefore, there is no need for a procedure for in-reactor fuel movement.