

## **Up-date on Seabrook's Spent Fuel Dry Cask Storage Status**

**On August 4<sup>th</sup> 2013, NextEra began the process of transferring additional spent fuel rods from Seabrook's spent fuel pool into 8 dry casks and onto their Independent Spent Fuel Storage Installation (ISFSI). Each of the dry casks holds 32 assemblies. This latest transfer to fuel increases the casks on-site at Seabrook's ISFSI to 16 casks. NextEra will not move any more casks out of the pool until 2017.**

**C-10's safety concern in allowing Seabrook to maintain the pool at near to full capacity is as follows.**

**In Seabrook's spent fuel pool, the original racks at Seabrook were designed to hold 660 assemblies in their rack design. Seabrook then put in replacement racks to hold 1,236 assemblies which is double the original design. To retain the criticality margin of 5% (an NRC requirement) they used replacement racks containing neutron absorbers. Seabrook is using boron as a neutron absorber that acts like neutron glue. Unfortunately, the design of these racks over time has revealed that they had a flaw in their design. The boron was found to leach out of the walls and fall to the bottom of the pool. This leaves the fuel at the top of the racks not adequately covered. This is occurring at many plants.**

**In 2014, to maintain their criticality margin of 5% Seabrook requested NRC permission to go to a checkerboard geometry. According to Dave Lochbaum, Nuclear Safety Director, Union of Concerned Scientists, Seabrook needs 500 parts per million of boron to maintain the 5% criticality margin. The proposed re racking geometry will provide them the cushion of 2000 parts per million in the water.**

**In addition, on March 5, 2014, Seabrook has asked the NRC for permission to use Optimized zirlo clad fuel rods. We are presently doing research to determine the wisdom of this request with experts.**

**As a result of the lessons learned from Fukushima, in March 2012, the NRC required Seabrook and all plants to install more reliable instrumentation in the spent fuel pools and back-up equipment capable of replacing the water inventory lost by drainage, lost by boil-off etc. According to Dave Lochbaum, this may be a good idea but if the replacement water does not have 500 parts of boron, the plants may be able to prevent fuel damage due to overheating only to incur fuel damage due to critically.**

**C-10 Foundation has concluded that removing spent fuel rods into dry cask storage as soon as possible is the safest solution and continues to insist the NRC require removal from Seabrook's spent pool to dry cast storage and for Hardened On-Site Storage (HOSS) as soon as possible.**