

# **BURNUP MEASUREMENTS OF LEU FUEL FOR SHORT COOLING TIMES**

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- The methodology presented in this paper should be taken as a verification of our first attempt (2003), to use  $^{95}\text{Zr}$  as a burnup monitor.
- Proposed factor F is:

$$F = \left[ k + e^{-\lambda\tau} (p + 1 - k) - pe^{-\lambda T} - e^{-\lambda T_1} \right]$$

- Considering the simplicity of the physical assumptions used to formulate F, and the supposed periodical operation of RECH-1 used on the algorithm to calculate F, the results are promising. The tables show that the averaged differences between the measured burnup and the codes or calculated burnups, are lower if the assembly operational biography is simpler. Similar conclusion is obtained from measurement of the LR-47 assembly. Then, the results using  $^{95}\text{Zr}$  are reasonably within the range calculated using codes