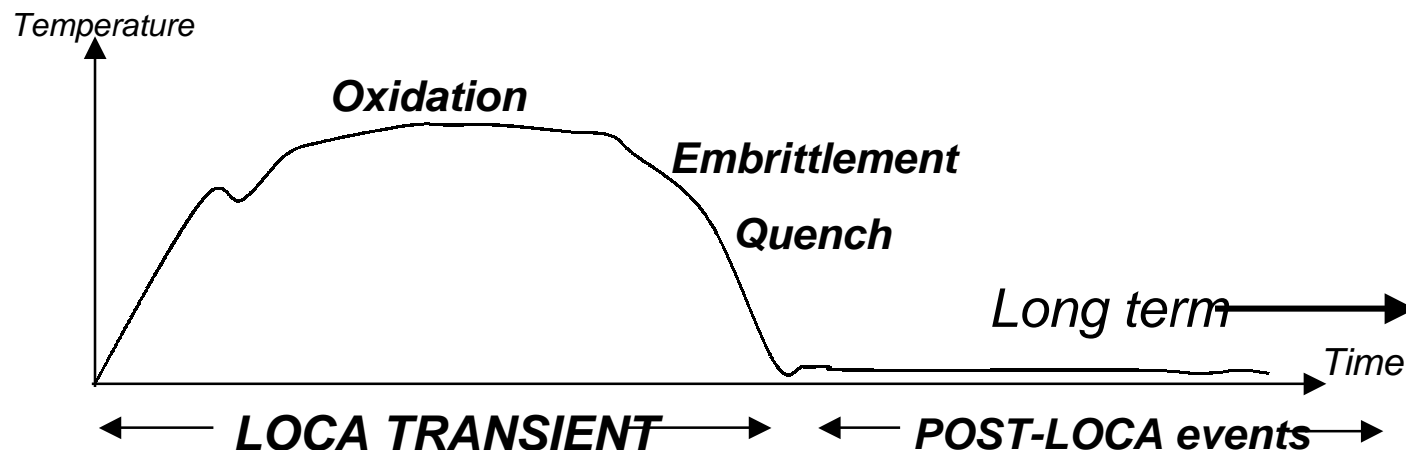


# Collaboration Between NRC and the RFP

- Jointly sponsor the experimental work but interpret the results independently
- RFP has provided representative high-burnup fuel rods and archive materials
  - 7 Limerick rods with 57 GWD/T (rod-average burnup) in May 2000
  - 12 Robinson rods with 67 GWD/T (rod-average burnup) in May 2001
  - Rods are for LOCA, spent fuel storage, source term and Yucca Mountain Project



# Other RFP Support of ANL LOCA Program

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- Design and conduct of ANL LOCA Integral Tests
  - Specimen design features (upper/lower pressure transducer, upper plenum size, volume of gas, placement of thermocouples, etc.)
  - Specimen temperature profile (prohibit ballooning in plenum)
  - Techniques to observe fuel relocation
  - Prototypical LOCA ramp and quench rates
- Cross-Check Separate Effects Tests Using Archive Materials
  - High Temperature Oxidation and Quench Fracture (CINOG)
  - Ballooning and Burst (EDGAR)
- Data reduction and evaluation
  - Review and compare data to existing database on unirradiated fuel
  - Perform calculations to understand role of burnup effects (irradiation damage, hydrogen, fuel-clad bonding, etc.)
  - Identify implications to in-reactor response under LOCA conditions