

Topic	SFR	LFR	GFR	Comments
Mechanical performances of Austenitic steels (over 60 years)	X	X	X	Commonalities identified in EERA
Behaviour of steels under irradiation	X	X	X	
Up-date of RCCMRx	x	X	X	
LM Corrosion Policy “Low [O]	X	X		
Coolant purification systems to extract impurities		X	X	
Coolant composition control		X	X	Specific composition for GFR , O for LFR
Activated Corrosion Products mass transfer (modeling ; deposition models)	X	X	X	Phenomenologies can be slightly different
Tritium transfer: source term assessment, permeation barriers, inventory, mass balance	X	X	X	
Protective coating technique	X	X	X	Corrosion (LFR), FA foot for SFR, Rotating shafts(?) for GFR
Cover gas Thermics and Thermal hydraulics modelling including aerosols effects	X	X		For LFR specifically MIRRHA
Traps (CT or getters or filters) regeneration (with reuse) or treatment process	X	X	X	SFr: Carbonation process LFR: getters regeneration... GFR: filters treatment
Models on water leak evolution & develop a model “multi-tubes” propagation	X			to avoid conservative hypothesis: all pipes have to be considered in a Na-water scenario

R&D on cleaning of FA, FA rupted and Absorbants	X	X		SFR: Innovative processes has to be investigated and existing processes have to be up-dated
Decontamination before repair...			X	
Sampling & analysis methodology	X	X		
O Control by dedicated sensors	X	X	X	For GFR: checking of required gas composition
R&D for Heterogeneous welding	X	X	X	SFR: EM10 / 316 (Hex-can/S/A-foot)
Characterization of HIP-316 L				SFR for Na-gas heat exchanger
Experiments to study the behaviour of sacrificial material on long term (core catchers)	X		X	
Experiments in simulant and prototypic (<i>with depleted U</i>) materials	X	X	X	
SiCf-SiC composites			X	
Thermal barriers in gas-cooled systems	X	X	X	More particularly for GFR
Reflector & shielding materials			X	