

EMAIC

The objective of the EMAIC (Emission AIC) facility is to characterise the physico-chemical nature of the aerosol source term resulting from the vaporisation of control rod material made of the metals Silver (Ag), indium (In), Cadmium (Cd) after their cladding rupture during a PWR severe accident.

This emission has an impact on the iodine chemistry (AgI) and on the behavior of aerosols in the reactor primary circuit and in the containment. The presence of control rod material influences the source term potentially present in a PWR containment and likely to in the atmosphere.

In a French 900 PWR the AIC material can make up as much as 2 tons.

The results of these experiments should help in establishing computer models on the AIC source term, part of the ESCADRE (later ASTEC) code system. They should also be used as an experimental input for the AIC injection into VERCORS fuel release experiments.

