

Consequences of 30 Years of Operation on the of RF Cooling Circuits at GANIL

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The GANIL facility (Caen, France) is dedicated to the acceleration of heavy ion beams for nuclear physics, atomic physics, radiobiology and material irradiation since 1983. With an average beam-time of 3500 h over more than 30 years, the GANIL encounter water leak problems mainly on the RF cooling circuits. The impact on the beam-time available for the physics is becoming visible because of the heavy intervention required. Therefore, a preliminary study in 2011, several causes were identified that may induce corrosion and erosion of our circuits. In 2015, a second report stated that some improvements may enhance the lifetime of the circuit. An exhaustive check of the parameters of the water compared to the literature showed that some improvement can be launched. Nevertheless, the erosion/corrosion mechanism seems to be the main reasons for our water leaks and the poster will present the status of our reflexions and the curative or preventives actions foreseen.