

DESIGN CHANGE AND INSTALLATION OF WIRE SPARK EROSION MACHINING IN HOT CELL OF LECI LABORATORY

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ABSTRACT

In order to support the research programs dedicated to the mechanical behavior of metallic materials such as fuel cladding or reactors internal components, the Microscopy and Irradiation Damage Studies Laboratory prepares specimens for mechanical testing, from irradiated materials.

The Laboratory is equipped with spark erosion machining or digitally controlled machining (milling machine, lathe, saw, engraver) installed in hot cell. However, all the types of specimens cannot be machined with these equipments.

Therefore, a wire erosion machine was developed in the LECI Laboratory, in a hot area. The setting up of such a technique in hot cell is rather difficult, and this paper describes the large changes we have performed to adapt it to the use in a nuclear environment. Machining and remote maintenance are now ensured by manipulator arms.

KEYWORDS EROSION MACHINING, WIRE, HOT CELL, SPECIMEN, MECHANICAL TESTING



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