

OSART Good Practices

TECHNICAL SUPPORT

Fuel Handling

Blayais, France

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During reactor core loading, the plant uses a simple mechanical device which ensures the safe positioning of fuel assemblies in the core.

This device aims to make fuel assembly reloading operations easier. It is controlled by the fuel loading machine, which positions it on the core support plate as same as fuel assembly.

It guides the fuel assembly during its landing on the plate and more specifically, adjusts the orientation of the bottom nozzle so as to facilitate positioning on the core support plate's alignment pins.

This device offers the following benefits:

Increase safety during fuel handling

Reduced number of modifications to reloading sequences: the tool bypasses the need for 180 degree turns or for temporary storage due to deformation of the handled fuel assembly or adjacent assemblies in the core.

The loading method used limits friction damage between assemblies and any consequences in terms of the integrity of the first barrier.

Each loading sequence is therefore unique and valid, whether the fuel assembly's specific deformations.

Increase availability

The length of time required for loading each assembly becomes disassociated from the assembly's geometrical characteristics.