

Preliminary NRC Questions for 71-9319, MAP-12 and MAP-13 Application

1.

We did not find any mention of wear resistance as a criteria for materials selection [as related to the ball lock pins].

Framatome Response:

There is no change to the ball lock pin discussion provided in Section 2.12.2, *FS1-0040260 Mechanical Inputs to Licensing for ATF Fuel Shipments in MAP Series Containers*, of the SAR from the information provided earlier. Material ultimate shear strength rather than wear resistance was the primary criteria during original material selection in 2006. Each ball lock pin is visually inspected prior to each use as required in Sections 7.1.1.2, *Prepare Shipping Package* and 8.2.3.1, *Fasteners* of the SAR. We can find no record or operator recollection of replacing a ball lock pin due to wear. Over the past year Framatome has replaced roughly five pins from the fleet and the typical reason is a weak internal spring or sticking plunger which is likely from the ingress of dirt or grime during transport.

2.

We would like to know more about what happened to the 8 pins that failed and if or how Framatome is applying this result to a simulation at -20F that is stated in the 3rd to the last paragraph in Section 5 on Page 25.

Framatome Response:

There is no change to the ball lock pin discussion provided in Section 2.12.2, *FS1-0040260 Mechanical Inputs to Licensing for ATF Fuel Shipments in MAP Series Containers*, of the SAR from the information provided earlier. Framatome has not performed any simulations or modeling of the pins and the reviewer may have misunderstood the pin summary which used the word simulation. Models were used in other areas of the document for the lifted rod evaluation. The intent of the author is to point out that if Framatome were to perform an HAC drop at -20°F a substitution using improved materials would not result in an appreciably different number of failed pins based on the information provided.

No additional information regarding the 8 failed pins is available. Framatome only has the test reports included in the SAR and although we still have the CTU units, the base and lids are not assembled and the location of any of the original pins is not currently known.