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## JT60 SA : Baking scenarios studies

*Thursday 25 September 2008 16:00 (25 minutes)*

Performing high quality plasma requires “clean” vacuum vessel obtained by frequent bakings. Baking consists of heating the vacuum vessel to 473K for several days. This operation requests a particular operational mode of the cryogenic system. Because of the increase of radiation heat loads on thermal shields, the helium mass flow in 80K cryogenic circuits should increase of 50%.

To avoid an over capacity of the cryogenic plant, different scenarios are studied in order to reduce mass flow during baking.

Depending on the durations of the baking and the associated cool down conditions, an optimisation of this operational mode must be carried out considering the total mass flow, the repartition at low and middle pressure in the warm compression station and electrical consumption.

**Proposed for workshop session (see call for abstracts): 1- Operation 2- Maintenance 3 - Safety 4 - Control**

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