D1. Equipment Warm-up

For many diagnostic imaging systems there is a warm-up period before the system performs optimally. This may include the boot-up of the system and operating system, warm-up of the x-ray tube, calibration of detectors, and stabilization of displays.

In many cases, for example CT, an air calibration is usually carried out at least on a daily basis. Certain x-ray manufacturers also build an x-ray tube warm-up procedure into the boot-up of the system, which has to be completed before the system will function. If the system is used only on day shifts, then such warm-up should be carried out when the system is first turned on. If the system runs continually, for example in an emergency area, then the system should be warmed-up/calibrated at the required interval, for example at midnight or 0800.