

## Daily Equipment Quality Control for CT Equipment

**Purpose:** To ensure equipment is operating within the specifications and guidelines set by the manufacturer and Department Environmental Quality. This policy will be performed every day the equipment is used for diagnostic imaging.

**Policy:** The CT Technologist will perform and log quality control procedures on each daily use of the scanner. Any out of range quality control values or other problems will be immediately brought to the attention of the supervisor.

**Procedure:**

1. The quality control consists of two parts:

- Tube warm up
- Phantom testing.

These procedures will be completed every morning by the am technologist.

2. Select daily prep on the operators console.
3. Select tube warm-up.
4. Select accept and run.
5. Push start scan button.
6. Select fast calibration.
7. Push start scan button.
8. Select new patient; type current date in patient ID slot and “test” in patient name.
9. Select protocol for QA with 3 densities.
10. Attach water phantom and holder to table.
11. Using positioning laser and mark on phantom, set up scan.
12. Perform test scan.
13. Take ROI measurement or CT# in three densities:

- Water
- Plastic
- Air

The action range for each ROI should be set at the average of ten measurements plus or minus 10 CT #'s

14. Record required data in Daily QA Book located in the scan control room. Record the date, ROI#1 water, ROI#2 plastic, ROI# 3 air and the technologist initials.

15. If the measured CT number for any of the three ROIs falls outside of the action range, repeat the test. If it fails again, patients may not be scanned until service has been contacted to identify and correct the problem
16. Action ranges need to be reset following a tube replacement or major service to the equipment.

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