Lessons Learned
CT Scanner Quality Control Test Errors

What Happened?
A routine Computerized Tomography (CT) Scanner Technologist Quality Control audit revealed that the daily QC spreadsheets for another machine were used.

Noise values in a CT scanner’s water phantom are measured daily; these limits are usually unique to the unit, or to the make and model of CT. If incorrect noise limits are used, incorrect data can be recorded as a “pass” result. This could potentially delay any necessary machine adjustments until either the next scheduled preventative maintenance by Engineering, or biannual testing by the Health Physics team.

Additionally, although the correct monthly QC spreadsheets were being used, an out-of-tolerance value was recorded as “pass” result.

Why Did This Happen?
- The same CT Technologists rotate through several different outpatient clinics, and were using QC photocopies from a different location.
- The CT Technologists were unclear regarding “pass” values for that particular machine.

Lessons Learned
- QC daily and monthly testing of CT scan machines must be performed using the correct values.
- To ensure this, paper spreadsheets have been eliminated and QC Testing has been moved to a SharePoint file sharing website. Electronic spreadsheets are now available for technologist use online. If a value outside of the established limits is recorded, a “fail” notification result in bold red automatically appears.
- For more information, please consult the following resources available on the EHS website:
  — Radiation Safety Tools and Resources
  — Radiation Safety Manual
  — Radiation Safety FAQ

A WCM CT scanner.