What Happened?

After the replacement of an x-ray tube in a 16-inch computerized tomography (CT) scanner, the x-ray technologists did not perform daily and monthly quality control (QC) tests before patients were examined, as required by the NYC Department of Health (DOH). During the following NYC DOH inspection, the inspector uncovered this oversight during an audit of the hospital’s records.

Why Did This Happen?

- The CT machine was not tested after the x-ray tube replacement.
- The test instructions are recorded in the physics policy and procedures manual, but not in the technologist’s QC binder.
- The health physicist was not aware of the X-ray tube change. Had the Health Physics office been notified of the replacement procedure, a reminder to perform QC testing would have been sent to the supervisor.

Lessons Learned

- X-ray technologists must be mindful of all required tests, which should be performed as specified in DOH regulations. A large reminder note with instructions is now included in the technologists’ QC binders, which are kept at each CT scanner.
- All CT technical staff managers and supervisors must notify the appropriate physicist by cell phone and/or email when a CT x-ray tube is going to be replaced. The manufacturer’s service engineers have also been instructed to contact the physicist.
- For more information, please consult the following resources available on the EHS website:
  — Radiation Safety Tools and Resources
  — Radiation Safety Manual
  — Radiation Safety FAQ