A 1.5 Tesla MRI system was moved to a new wing of the hospital, and the vacated space converted to accommodate a dedicated digital angiography imaging system. Commissioning the new angiography unit showed significant image distortion which was most severe when the image intensifier was located adjacent to the floor. Subsequent floor level measurements indicated magnetic field intensities ranging from ~0.5 gauss adjacent the walls to ~18 gauss adjacent to the angiography unit. Review of the facility construction plans indicated the presence of (unexpected) steel bar installed in the concrete floor at a depth of ~8 inches. Demagnetization was performed "*in house*" by using an alternating (60 Hz) magnetic field generated by a 73 cm diameter coil (36 turns) of heavy copper wire attached to the leads of a small electric arc welder and operated at 75 amperes. These components were placed on a cart such that the coil was ~1 cm above the floor and the demagentization unit was repeatedly passed over the floor for 90 minutes. The AC magnetic field intensity at the level of the steel bars was estimated to be ~2 kgauss. After demagnetization, repeat measurements showed a five-fold reduction in residual field strength at the floor surface and the image distortion was reduced to a clinically acceptable level. Our experience shows that the decomissioning of MRI facilities needs to include magnetic field measurements to ensure that there is no residual magnetic field which may interfere with sensitive equipment such as an image intensifier.