

K. Gilchrist<sup>†</sup> and D. Wells<sup>††</sup>

† U.K.A.E.A. Reactor Materials Laboratory, Culcheth-Nr Warrington, Lancs.  
\* U.K.A.E.A. Atomic Weapons Res. Establishment, Foulness, Essex.

Abstract

The noise emitted by graphite samples when stressed in compression has been examined in a specially designed "quiet" room. Two types of nuclear graphite were examined, one composed of isotropic particles and the other of anisotropic particles. It was observed that the former remained quiet until the fracture stress was approached but the latter showed noise emission well below the fracture stress. Measurements of strain conducted in the same experiments showed that Poisson's ratio increased markedly with stress in the anisotropic material, but not in the more isotropic structures.