

Three reinforced concrete (RC) slab-panels are repaired by using the crack injection method. This is because web-shaped crack networks are observed after 46 years in service. In the present research, an attempt is made to confirm the effectiveness of the repair by comparing the velocity distribution of elastic waves obtained from Acoustic Emission (AE) tomography analysis, before and after the repair. Thus, the velocity recoveries due to injection are found in all of the slab panels, and it is confirmed that the elastic wave velocities obtained using this technique can serve as an indicator for examining the state of crack and void filling with injected material. Further, a good correlation is found between the low-velocity region before repair and the amount of injection. These results show the potential of the AE tomography technique to be used as a method for estimating the effect of injection repair.