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Recent results from the SciBath detector at Fermilab R.L. COOPER, L. GARRISON, L. REBENITSCH, R. TAYLOE, R.T. THORNTON, Indiana University — The SciBath detector is an 80 liter liquid scintillator detector read out by a three dimensional grid of 768 wavelength-shifting fibers. The fiber readout allows SciBath to measure neutral particle fluxes by tracking the recoiling charged particles with uniform efficiency in all directions. Near 1 MeV, neutrons are detected with 30% efficiency and 30% energy resolution, and near 100 MeV, the efficiency is 10% with a 60% energy resolution. Recently, a series of measurements were conducted at Fermilab in order to measure neutron backgrounds. At the end of December, a measurement was completed 100 meters underground at the MINOS near-detector area. In support of a possible coherent neutrino scattering experiment, a second measurement was completed in April at the MI-12 target building for the Booster Neutrino Beam. The latest results from both of these measurements will be presented. In addition, an overview of detector performance, with a particular emphasis on the event topology reconstruction, will also be presented. These results can be extrapolated to future measurements of fast-neutron backgrounds at other underground facilities.

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