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Estimation of Neutron Backgrounds in CDMS-II MATTHEW FRITTS, ANGELA REISETTER, PRISCILLA CUSHMAN, Univ of Minn - Minneapolis, CDMS COLLABORATION — In the Cryogenic Dark Matter Search (CDMS) neutrons can produce a signal indistinguishable from that of a WIMP. Potential sources of neutron background include cosmic-ray muons, radioactivity in the cavern rock, and radioactivity in the internal shielding and hardware. Methods to eliminate these backgrounds include the shielding from cosmic rays provided by the depth of the site, passive shielding from cavern radioactivity, an active scintillator cage to tag muons incident on the shielding, and event analysis to distinguish multiply-interacting neutrons from single nuclear recoils. I will describe the results of these efforts and estimates of the residual neutron background, based on Monte Carlo simulations of cosmogenic and radiogenic neutron production, screening of shielding and hardware materials, and analysis of data coincident with cosmic-ray muons tagged by the scintillator cage.

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