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Production of the neutron-induced isotope, ^{73}Ga, at the Davis Campus of the Sanford Underground Research Facility with the MAJORANA DEMONSTRATOR[1] PINGHAN CHU, Los Alamos National Laboratory, MAJORANA DEMONSTRATOR COLLABORATION — We report a study of the production of the neutron-induced isotope, ^{73}Ga, in the MAJORANA DEMONSTRATOR array at the underground Davis Campus of the Sanford Underground Research Facility 4850 ft level. This isotope has a half-life time of 4.86 hours and can be generated through interactions between fast neutrons and germanium isotopes. Using its unique decay signature, we have identified three candidate events of ^{73}Ga in the commissioning data of MAJORANA DEMONSTRATOR. Based on these three events, we estimate the corresponding neutron energy spectrum and the radioactive background generated by neutron-induced isotopes. The background from neutron-induced isotopes has been also calculated in the Region of Interest for ^{76}Ge neutrinoless double beta decays. This material is based upon work supported by the U.S. Department of Energy, Office of Science, Office of Nuclear Physics, the Particle Astrophysics Program of the National Science Foundation, and the Sanford Underground Research Facility. We acknowledge the support of the U.S. Department of Energy through the LANL/LDRD Program.

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