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Spectroscopy of neutron-unbound ^{15}Be JESSE SNYDER, MICHAEL THOENNESSEN, THOMAS BAUMANN, ARTEMIS SPRYOU, MICHAEL STRONGMAN, GREG CHRISTIAN, SHEA MOSBY, MICHELLE MOSBY, JENNA SMITH, ANNA SIMON, NSCL/MSU, BRYAN LUTHER, Concordia College, SHARON STEPHENSON, ALEX PETERS, Gettysburg College, PAUL DEYOUNG, ERIC LUNDERBERG, Hope College, JOSEPH FINCK, Central Michigan University — A (d,p) reaction was used to populate neutron unbound states in ^{15}Be from a secondary beam of ^{14}Be at 55MeV/u. These unbound states in ^{15}Be decayed though the emission of a neutron and a ^{14}Be fragment. The neutron was detected using MoNA, an array of 144 plastic scintillator bars. The charged ^{14}Be fragments were deflected by the Sweeper dipole magnet into a system of charged particle detectors which allow the reconstruction of their kinematic properties. The decay energy was calculated through invariant mass analysis, using the energy and momentum information of the neutron and fragment at the target. Preliminary results will be presented.

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