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A 185kg NaI[Tl] Detector for Observing the Charged-Current Neutrino Interaction on ¹²⁷I SAMUEL HEDGES, Duke University, COHER-ENT COLLABORATION — A 185kg NaI[Tl] detector has been deployed to the Spallation Neutron Source (SNS) at Oak Ridge National Laboratory (ORNL) to measure the charged-current neutrino interaction cross-section on ¹²⁷I. Results from an initial run will be shown, and details of an upgrade to the 185kg detector will be discussed. Recent developments towards a 2-ton NaI[Tl] detector capable of simultaneously observing the charged-current interaction on ¹²⁷I and coherent elastic neutrino nucleus scattering (CEvNS) will be presented.

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