



**Figure 1:** Improved setup at the Savannah River power plant with a separation between target ( $\text{H}_2\text{O} + \text{CdCl}_2$ ) and detector consisting of liquid scintillator: (left) the two gammas from the annihilation of the positron are detected in the external tanks filled with liquid scintillator (I and II in the picture); (right) after diffusion in the target, the neutron is captured on Cd, which releases gammas that are also detected in the detectors.