

The Underwater Gamma Gauge is a water-tight system designed to detect Cs137 gamma energy from suspected fuel objects in the CPP-603 water basins. This is accomplished through the use of an eV products collimated and shielded cadmium zinc telluride detector mounted in a 4"X10" tungsten shield and contained in a water-tight 7.5"X11.5" cylinder. The detector senses energy through a moveable aperture collimator with 2,3,4mm windows and a narrow horizontal stainless steel viewing port in the detector end-cap. Once an object, whether it is fuel or metal, is detected the position of the object is known by combining the inputs of linear and rotary encoders. With the concentration, quantity, activity, and location known operators have enough characterization data to begin planning for retrieval and disposal operations.

INEEL developed Underwater Gamma Gauge (TUGGS) is a remotely deployed water-tight gamma assay system. The system detects Cs137 which is a product of suspected fuel objects located in the CPP-603 water basins.