

## **Evaluation of CANBERRA® Cryo-Cycle™ Hybrid Cryostat as Cooling System for the High-Purity Germanium (HPGe) Detector in RN52 Radionuclide Monitoring Station in Tanay, Rizal, Philippines**

The RN52 Radionuclide Monitoring Station in Tanay, Rizal and its surrounding vicinities are annually frequented by severe weather conditions such as heavy rains, thunderstorms, and landslides, which greatly affect the operation and maintenance of the facility, especially the delivery of liquid nitrogen (LN2) necessary for the normal operation of the high-purity germanium detector (HPGe). The newly-installed CANBERRA® Cryo-Cycle™ hybrid cryostat, which regularly regenerates liquid nitrogen from its initial supply, will greatly reduce the need for additional LN2 supply at the station thereby reducing operational costs and further ensuring safety for its staff members. The CANBERRA® Cryo-Cycle™ hybrid cryostat is hereby evaluated for its ease of operation and its general performance as cooling system for the HPGe detector in RN52 Radionuclide Station in Tanay, Rizal, Philippines.

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