108 年輻射災害鑑識分析能力建立

Establishment of Radiation Disaster Identification and Analysis Capability

主管單位：原子能委員會輻射偵測中心

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摘要

日本福島事故引起廣泛關注，我國民眾對於日本進口食品的安全也特別重視。然而，國內放射性分析檢測能量有限，為提升南部地區放射性分析檢測能量，建立輻射災害備援實驗室有其迫切性及重要性。本計畫分四年期(105-108 年)在南部地區逐步建置輻射災害放射性分析備援實驗室，今(108)年度目標為輔導備援實驗室取得衛生福利部食品藥物管理署(Taiwan Food and Drug Administration,TFDA)放射性核種之食品檢驗機構認證，購置低背景比例計數器分析系統及擴充阿伐/總貝他放射性分析能力，參加國際原子能總署(IAEA)及國內比較實驗所舉辦之放射性核種分析能力試驗，藉此驗證檢驗人員穩定性與熟練度，以強化南部地區放射性分析能量。而備援實驗室則持續與輻射偵測中心進行檢驗技術交流，並透過國內研討會議發表研究成果，藉此累積放射性領域科學研究能量確保與最新檢驗技術接軌。一旦核子事故或輻射相關意外事件發生時，備援實驗室可支援應變單位執行各類樣品的放射性檢測作業，以確保國人的安全。

Abstract

Fukushima nuclear accident has aroused widespread concern. Many peaople in Taiwan have worried about the safety of imported food from Japan. However, the capacity of radioactive analysis in accident is insufficient. In order to enhance the capacity of radioactive analysis in Taiwan, the establishment of a backup laboratory has its urgency and importance. The purpose of the project is to enhance the overall capabilities of radiological analysis for radiation accidents, via establishing a backup laboratory in Southern Taiwan from 2016 to 2019. The main goals in 2019 include the purchase of a set of low background

ratio counters and strengthen the α/β radiological analysis capability. In addition, the backup laboratory has earned the accreditation of Taiwan Food and Drug Administration (TFDA). Also the backup laboratory passed the IAEA and “Domestic Comparative Experiments” proficiency tests to ensure its analytical ability and quality. The laboratory persists sharing inspection information with Radiation monitoring center of AEC and publishes research results in domestic seminars so as to accumulate scientific research energy in the field of radioactivity and continue to be in line with the latest inspection technology. If a nuclear accident or radiation-related accidents occurs, the backup laboratory can support the government to implement all kinds of raioactive sample analysis and detection works to ensure people’s safety.