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**Optimizing Maintenance of Handheld Detection Equipment for Front Line Officers in Ghana: A Systems Engineering Perspective**

**Content**

Front Line Officers in Ghana use handheld nuclear security detection equipment as a secondary detection strategy, though X-ray scanners are the primary equipment used to inspect cargo shipments at the country's borders and ports of entry and exit. However, due to the extensive work shift conditions, some officers have found it quite challenging to maintain these equipment effectively. These handheld equipment help tremendously with detection; nevertheless, if they have functionality defects, they can lead to inadequate detection. In response to an ongoing IAEA Coordinated Research Project on Advancing Maintenance, Repair, and Calibration of Radiation Detection Equipment, the Nuclear Regulatory Authority’s nuclear security team, propose using a systems engineering approach to guide the optimization process of maintaining these handheld security detection equipment used by FLOs at the country’s borders. This technical measure is considered essential to enhance Ghana’s nuclear security practices pertaining to equipment maintenance and improve the nuclear security regime.

**State**

Ghana

**Gender**

Male/Female

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