



Contribution ID: 262

Type: oral

NECSA'S Need to Establish a Nuclear Forensics Specific NDA Facility for On-Site Categorization of Seized Nuclear Materials

Thursday, 23 October 2014 14:30 (20 minutes)

The increase of nuclear material that are out of regulatory control is becoming a serious concern and threat and thereby continuously seeking urgent interventions and counteractions from the international community aspiring effective control over all nuclear material and peaceful uses of nuclear technologies globally. In South Africa the nuclear forensics initiative approach and its execution have been adopted, established and managed by the South African Nuclear Energy Corporation (NECSA) to support the country's nuclear safeguards system and nuclear security investigations plan to fight against the illicit trafficking of nuclear and radioactive materials.

On this nuclear forensics initiative approach adopted by Necsa, the development and later execution of a Non-Destructive Analyses (NDA) facility capability for quick categorization of any seized nuclear material by law-enforcement agencies is currently envisaged as a critical initiative to comprehend nuclear forensics Laboratory analytical or characterization techniques. The main objective for this NDA facility is planned to be used for performing nuclear material screening process for material categorization purposes to generate information and results which will be open to law enforcement agencies for prosecution processes and also for the safeguards reporting to the IAEA (ITDB).

The NDA technique is therefore found to be a critical tool needed at NECSA as an Early-Checking-Point or first-line material check point for all seized nuclear materials in determining some characteristics of the materials and collection of data without having to destroy or changing the morphology of the material.

Country or International Organization

South Africa

Primary author: BOSHIELO, Precious (The South African Nuclear Energy Corp (NECSA))

Co-author: MOGAFE, Reuben (The South African Nuclear Energy Corp (NECSA))

Presenter: BOSHIELO, Precious (The South African Nuclear Energy Corp (NECSA))

Session Classification: IAEA-State Cooperation II