

## Roles and Responsibilities of Stakeholders during a Radiological Incident: A Theoretical Case Study of Bangladesh

Ensuring security of radioactive materials used in different medical and industrial facilities is more critical than doing the same in nuclear power plants. Possessing radioactive materials in medical and industrial facilities does not house strong physical protection and response systems. Operators don't have any official communication protocol systems to who they should contact during any radiological incident if it occurs. International terrorist organizations are well aware of the situation and may use this to their advantage. Under this inadvertent situation, the adversaries might possess radioactive elements that may be used for making dirty bombs. These bombs may be used for weapons of mass disruption which may bring about potential health and economical consequences. Bangladesh is underway to construct its first the nuclear power plant at Rooppur site. However, nuclear and radiological emergency response plan is yet to establish and newly established regulatory body is over pressure in managing the under-construction nuclear power plant. There is no legal communication protocol among stakeholders such as police, border guards, coast guards, and customs. If any radiological incident would occur in any hospitals or industries across the country, how crime scene management would be tackled out. In this work, a theoretical case study has been conducted to identify the roles and responsibilities of the stakeholders during a radiological incident. The work has tried to suggesting a communication protocol suitable for Bangladesh, i.e. whom the stakeholders should contact if an incident occurs. The work has also suggested on how the law enforcing forces should prepare them in order to face such adversities and urges to establish a special squad dedicated for these specific incidents. The way the crime scene should be managed has also been focused on. The roles and responsibilities of the State, have been identified to prevent large scale dispersion of radioactive elements within common people. The roles and responsibilities of the regulatory authorities have also been identified in order to prevent uncontrolled and unregulated use of radioisotopes. Finally, the work has suggested the duties of the operators, who are the end users of radioactive isotopes, in the face of an adverse situation like terrorist attack.

### State

Bangladesh

### Gender

Male

**Author:** Dr ISLAM, Md Shafiqul (Department of Nuclear Engineering, University of Dhaka, Dhaka-1000, Bangladesh)

**Co-author:** Mr KHAN, Abid Hossain (Department of Industrial and Production Engineering, Jashore University of Science and Technology, Jashore-7408, Bangladesh)

**Presenter:** Dr ISLAM, Md Shafiqul (Department of Nuclear Engineering, University of Dhaka, Dhaka-1000, Bangladesh)

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