

Capacity Building Programme on **Management of Nuclear and Radiological Emergencies (NRE)**





Background

Gujarat, with its strategic geographical location and rapidly expanding infrastructure, faces a diverse range of emerging risks. In today's evolving global landscape, where threats extend beyond conventional hazards, preparedness for Nuclear and Radiological Emergencies (NRE) has become critically important. Accidental or intentional NRE incidents can have far-reaching impacts on public health, safety, the environment, and essential services.

The First Responders including SDRF, police, medical and health professionals, fire services, and other emergency response teams, plays a crucial role in addressing a wide range of disasters, including Nuclear and Radiological incidents. Gujarat's exposure to NRE risks is further heightened by the presence of the Kakrapar Atomic Power Station, heavy water plants, and the widespread use of radiation-based technologies in healthcare. To enhance the preparedness and response capabilities of these first responders, there is a critical need for specialized training on NRE emergencies.


Therefore, Gujarat Institute of Disaster Management (GIDM), in collaboration with Department of Atomic Energy (DAE) is organizing a two-day capacity-building program on Management of Nuclear and Radiological Emergencies (NRE) to enhance the preparedness and response capabilities of first responders, ensuring they are equipped to handle Nuclear and Radiological Emergencies effectively and safeguard the well-being of communities and the environment.

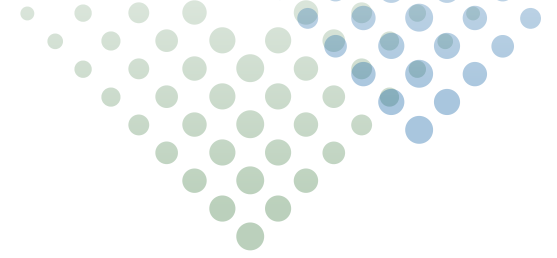
Why Build the Capacity?

Gujarat hosts the Kakrapar Atomic Power Station and heavy water plants, making it essential for responders to understand and address potential NRE threats. Past events, such as the 2010 Mayapuri radiological incident, highlight the potential consequences of radiological accidents and the necessity for strong preparedness mechanisms. Additionally, the increasing use of radiation technologies in healthcare, industrial applications, and research facilities presents inherent risks that require specialized response capabilities.

The programme aims to strengthen the competencies of first responders by providing essential knowledge and practical skills to assess, respond to, and mitigate Nuclear and Radiological Emergencies. By equipping responders with specialized expertise, the training seeks to ensure timely, effective, and coordinated action during NRE incidents—thereby safeguarding themselves, saving lives, protecting property, and the environment, and contributing to a safer and more resilient Gujarat.

Learning Objectives

- Equip first responders with the essential knowledge and skills to effectively manage and respond to Nuclear & Radiological Emergencies (NRE).
 - Familiarize participants with NRE detection, monitoring, and assessment equipment to enable rapid and accurate threat identification.
 - Strengthen response capabilities through practical exercises, simulations, and scenario-based learning.
 - Enhance participants' proficiency in handling and operating NRE response instruments and equipment.
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Target Participant

- SDRF personnel responsible for responding to a wide range of disasters.
- Police officers involved in emergency response and public safety.
- Medical professionals, including doctors and paramedics, who provide immediate care in emergencies.
- Fire services personnel trained to manage hazardous materials and fire-related incidents.
- Officials from Revenue department.

Program Coverage

The training program on Management of Nuclear and Radiological Emergencies (NRE) aims to strengthen the capacity of first responders, ensuring they are well-prepared to effectively manage and respond to NRE incidents. It provides comprehensive knowledge on NRE, builds practical response skills through hands-on sessions and exercises, and fosters coordination among key emergency response agencies for an integrated and efficient response.

Key Topics

- Introduction to Radiation Fundamentals
- Regulatory aspects and response mechanisms
- Roles & Responsibilities of Law Enforcement Agencies
- Health Effects and Medical first response
- Table-Top Exercise
- Demonstration of Instruments & Equipment

Faculty

The faculty would be from DAE, NDMA and GIDM.

Program Details

Date : 20-21 January, 2026
Duration : 2 Day
Venue : GIDM, Gandhinagar





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