

IRRS Good Practices

Emergency preparedness and response – regulatory aspects (Module 10)

Verifying the adequacy of on-site EPR of operating organizations

China – Follow-up Mission

Mission Date: September 2016

Good Practice

The Ministry of Environmental Protection (MEP) / National Nuclear Safety Administration (NNSA) Nuclear and Radiation Safety Centre in Beijing established a mechanism in the form of software for the regulator to independently and very quickly assess the practicability and effectiveness of detailed evacuation proposals. This mechanism was beneficial in the MEP/NNSA roles of both reviewing regional authority off site emergency plans and, in the event of an emergency, the implementation of specific evacuation actions.

Observation

The MEP (NNSA) TSO Nuclear and Radiation Safety Centre developed a mechanism to independently assess the practicability and effectiveness of evacuation within the emergency planning zones around NPPs. This was used to fulfil the MEP (NNSA) roles in both reviewing regional authority off-site emergency plans (it was pending National Nuclear Accident Emergency Coordination Committee -NNAECC - approval) and, in the event of an emergency, for advising the NNAECC.

Basis

GSR Part 7 Requirement 9 states that “*The government shall ensure that arrangements are in place to assess emergency conditions and to take urgent protective actions and other response actions effectively in a nuclear or radiological emergency.*”

IAEA Comments/Highlights

The MEP (NNSA) TSO operated the Nuclear and Radiation Safety Centre in Beijing and as part of this role they developed a mechanism in the form of software to independently assess the practicability and effectiveness of evacuation within the emergency planning zones around NPPs. This was used to fulfil the MEP (NNSA)’s roles in both reviewing regional authority off-site emergency plans (pending NNAECC approval) and, in the event of an emergency, for

very quickly advising the NNAECC. In particular, they developed the Emergency Evacuation Ability Assessment System software that contained population and road infrastructure data for all emergency planning zones. This was able to estimate the time required for various degrees of evacuation of any identified area (e.g., a particular village or part of a town) and the effects evacuation of other parts of the zone might have on that area. The ability of a regulator to review proposals on local evacuation decisions of this nature was considered an example of good practice.