



Document: ISO/TC 85/SC 5/WG 8/ISO-11320:2011 Summary

Nuclear criticality safety — Emergency preparedness and response

This document provides a summary of the following:

ISO-11320:2011. (First Edition). *Nuclear criticality safety — Emergency preparedness and response*
Sûreté-criticité — Préparation des interventions et intervention d'urgence

What is this standard?

This International Standard provides criteria for emergency preparedness and response to minimize consequences due to a nuclear criticality accident. The nuclear criticality safety of operations is evaluated in accordance with ISO 1709.

This International Standard applies to a site with one or more facilities which might contain significant quantities of fissile material. The extent to which this International Standard needs to be applied depends on the overall criticality risk presented by the facilities at the site.

Nuclear criticality safety programs at facilities are primarily directed at avoiding nuclear criticality accidents. However, the possibility of such accidents exists and the consequences can be life-threatening. For facilities that are judged to have a credible criticality accident risk, this necessitates advance planning, practice in planned emergency responses, and verification of readiness.

What does it cover?

The standard details the principles of developing and maintaining a criticality emergency plan. It covers:

- Responsibilities of operations management, operations staff, emergency response personnel and nuclear criticality safety staff
- The information needed as a precursor to developing a plan
- The effects from the location and the design of operations
- The requirements of establishing an immediate evacuation zone
- The details of what the emergency plan shall and should contain
- Equipment and materials to support the emergency plan to be effective
- Training, exercises and evacuation drills
- Expectations for evacuation, re-entry, rescue and stabilisation

These topics set out the key principles and on occasion are developed further in other Nuclear Criticality Safety (NCS) ISO standards.

Why is it useful?

It is a requirement for facilities that present a credible criticality accident risk to provide adequate arrangements for emergency response. This will normally take the form of a criticality emergency plan, and the demonstration that this plan is implemented and maintained adequately by training of staff, exercises and drills. This standard represents an international consensus of the appropriate arrangements to fulfil this requirement.

Who should use it?

An individual or body who has responsibility in the development and maintenance of a criticality emergency plan. These individuals would typically include NCS specialists supporting operations and emergency response management for radiological consequence accidents. Also, individuals or bodies with responsibilities of oversight and regulation of facilities and processes that require a criticality emergency plan.

Where can I find out more?

The ISO-11320 standard can be found at the ISO website:

<https://www.iso.org/standard/50382.html>