

SLOVENSKI STANDARD SIST EN IEC 62954:2021

01-september-2021

Jedrske elektrarne - Nadzorne sobe - Zahteve za objekte za odzivanje v izrednih razmerah (IEC 62954:2019)

Nuclear power plants - Control rooms - Requirements for emergency response facilities (IEC 62954:2019)

Kernkraftwerke - Warten - Anforderungen für Notfall-Reaktionseinrichtungen (IEC 62954:2019)

iTeh STANDARD PREVIEW

Centrales nucléaires de puissance Salles de commande Exigences pour les moyens de réaction d'urgence (IEC 62954:2019)

<u>SIST EN IEC 62954:2021</u>

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Ta slovenski standard je istoveten 2:2a5/sisEN IEC 62954:2021

ICS:

27.120.20 Jedrske elektrarne. Varnost Nuclear power plants. Safety

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM **EN IEC 62954**

July 2021

ICS 27.120.20

English Version

Nuclear power plants - Control rooms - Requirements for emergency response facilities (IEC 62954:2019)

Centrales nucléaires de puissance - Salles de commande -Exigences pour les moyens de réaction d'urgence (IEC 62954:2019)

en SIA

Kernkraftwerke - Warten - Anforderungen für Notfall-Reaktionseinrichtungen (IEC 62954:2019)

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62954:2021 (E)

European foreword

This document (EN IEC 62954:2021) consists of the text of IEC 62954:2019 prepared by IEC/TC 45 "Nuclear instrumentation".

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-07-05 level by publication of an identical national standard or by endorsement
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ccd Endorsement notice021

The text of the International Standard IEC 62954:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60709	NOTE	Harmonized as EN IEC 60709
IEC 60964	NOTE	Harmonized as EN IEC 60964
IEC 60965	NOTE	Harmonized as EN 60965
IEC 61227	NOTE	Harmonized as EN 61227
IEC 61772	NOTE	Harmonized as EN 61772
IEC 61839	NOTE	Harmonized as EN 61839
IEC 62645	NOTE	Harmonized as EN IEC 62645

EN IEC 62954:2021 (E)

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Yea</u>	<u>ar Title</u>	EN/HD	<u>Year</u>
IEC 61226	200	Nuclear power plants	s - Instrumentation andEN 61226	2010
		control important to	safety - Classification	
		of instrumentation ar	nd control functions	
IEC 61513	-		s - Instrumentation and EN 61513	-
		Control important 🛦	to safety - General VV	
		requirements for sys	tems	
IEC/IEEE	60780	Nuclear facilities -	Electrical equipmentEN 60780-323	-
323		important to safety -	Qualification	

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Edition 1.0 2019-01

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NORME INTERNATIONALE



Nuclear power plants Control rooms Requirements for emergency response facilities (standards.iteh.ai)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

NUCLEAR POWER PLANTS – CONTROL ROOMS – REQUIREMENTS FOR EMERGENCY RESPONSE FACILITIES

FOREWORD

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International Standard IEC 62954 has been prepared by subcommittee 45A: Instrumentation, control and electrical power systems of nuclear facilities, of IEC technical committee 45: Nuclear instrumentation.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
45A/1236/FDIS	45A/1251/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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INTRODUCTION

a) Technical background, main issues and organisation of the Standard

The Fukushima-Daiichi accident has shown that extremely severe hazards can occur for which a nuclear power plant has not been designed to resist. In such situations, the plant has possibly to cope with one or several damaged reactors, and associated radioactive releases, but also has to cope with the loss of a major part of the electrical sources, cooling functions and I&C, possibly including the Main Control Room (MCR), as well as with difficulties in accessing the site. Providing safe on-site facilities for managing such an emergency is hence a major issue.

An international consensus has emerged to promote the design and installation of a specific set of facilities aiming at coordinating the efforts of personnel charged with controlling the emergency activities and those of authorities external to the site charged with protecting the population and the environment. These facilities are called the Emergency Response Facilities (ERF).

Different countries, utilities and nuclear power plants have different geographical and infrastructure characteristics and different requirements under emergency situations. However, the same fundamentals apply in terms of both on-site and off-site requirements.

The IAEA requirements for emergency response are addressed in SSR-2/1 and GSR Part 7. Informative Annex A provides the more relevant extracts from these two IAEA publications.

Figure 1 below illustrates the most important control locations, emergency response facilities and other associated facilities on-site and off-site. Some of the on-site facilities could be combined to support close-communication or their functions could be dispersed across other on-site facilities. The level of hardening and autonomy of the individual on-site facilities could vary considerably.

https://standards.iteh.ai/catalog/standards/sist/6d8443b2-98ad-4da1-a19accd356c652a5/sist-en-iec-62954-2021 NPP site Local civil **ERF** authorities crisis centre **ERC** Fire service **MCR** Local health facilities IEC 60964 Additional radiological monitoring National civil **TSC** Population evacuation authorities Police, etc. crisis centre SCR Enforcement of osc local response IEC 60965 Off-site ERF Interface with: **ACP** All national emergency services IAEA Press IEC

Figure 1 - On-site and off-site ERFs and communicating entities

NOTE 1 No internationally standardized terminology has been established for the various on-site and off-site emergency response facilities. The terms used in Figure 1 indicate the ones that have been adopted in this document.

NOTE 2 Depending on local contexts, the "on-site" ERFs could be implemented close to the NPP and not inside it.

NOTE 3 The role and composition of the off-site civil authorities and emergency infrastructure are known to vary widely. These entries in Figure 1 are therefore considered as illustrative only.

As indicated in Figure 1 some functional services are already dealt with in IEC standards.