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)

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

Ta slovenski standard je istoveten z: **EN IEC 62954:2021**

ICS:

27.120.20	Jedrske elektrarne. Varnost	Nuclear power plants. Safety

SIST EN IEC 62954:2021 **en**

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)

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

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

Ref. No. 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 level by publication of an identical national standard or by endorsement (dop) 2022-07-05
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-07-05

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

As stated in the nuclear safety directive 2009/71/EURATOM, Chapter 1, Article 2, item 2, Member States are not prevented from taking more stringent safety measures in the subject-matter covered by the Directive, in compliance with Community law.

In a similar manner, this European standard does not prevent Member States from taking more stringent nuclear safety and/or security measures in the subject-matter covered by this standard.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN and CENELEC websites.

Endorsement notice

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

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.

Publication	Year	Title	EN/HD	Year
IEC 61226	2009	Nuclear power plants - Instrumentation and control important to safety - Classification of instrumentation and control functions	EN 61226	2010
IEC 61513	-	Nuclear power plants - Instrumentation and control important to safety - General requirements for systems	EN 61513	-
IEC/IEEE 60780-323	--	Nuclear facilities – Electrical equipment important to safety - Qualification	EN 60780-323	-

IEC 62954

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Nuclear power plants – Control rooms – Requirements for emergency response facilities

Centrales nucléaires de puissance – Salles de commande – Exigences pour les moyens de réaction d'urgence

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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.

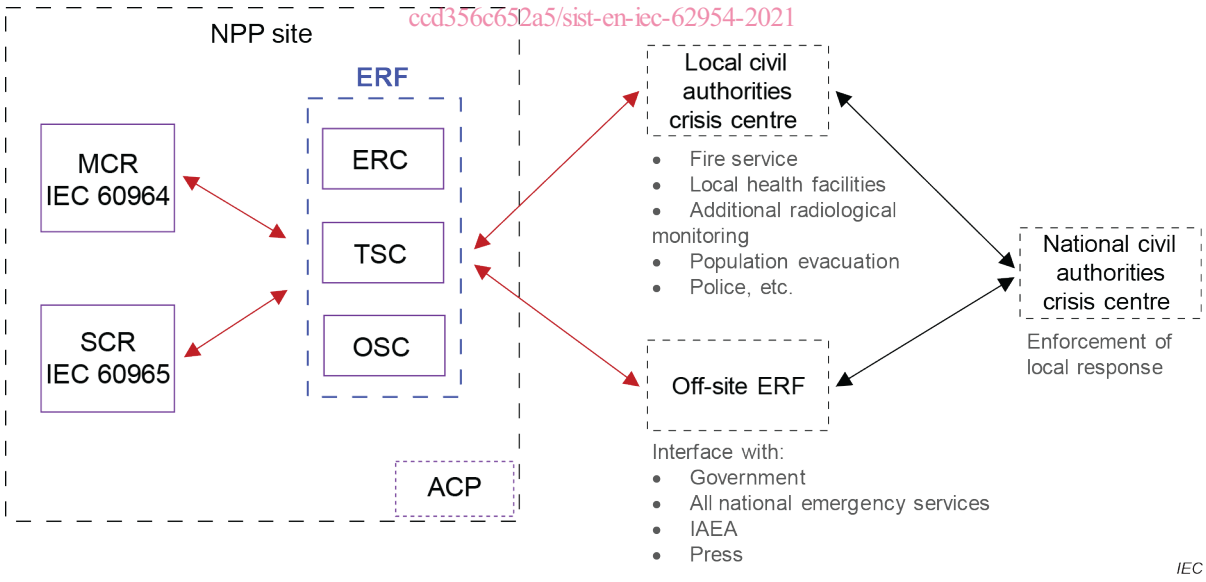

Figure 1 – On-site and off-site ERFs and communicating entities

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.