



SLOVENSKI STANDARD
oSIST prEN IEC 62954:2021
01-maj-2021

Jedrske elektrarne - Nadzorne sobe - Zahteve za objekte za odzivanje v izrednih razmerah

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

Kernkraftwerke - Warten - Anforderungen für Notfall-Reaktionseinrichtungen

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

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Ta slovenski standard je istoveten z: prEN IEC 62954:2021

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ICS:

27.120.20 Jedrske elektrarne. Varnost Nuclear power plants. Safety

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN IEC 62954

March 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)

This draft European Standard is submitted to CENELEC members for enquiry.
Deadline for CENELEC: 2021-05-28.

The text of this draft consists of the text of IEC 62954:2019.

If this draft becomes a European Standard, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CENELEC in three official versions (English, French, German).
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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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Ref. No. prEN IEC 62954:2021 E

prEN IEC 62954:2021 (E)**European foreword**

This document (prEN IEC 62954:2021) consists of the text of document IEC 62954:2019, prepared by IEC/TC 45 "Instrumentation, control and electrical power systems of nuclear facilities"

This document is currently submitted to the CENELEC Enquiry.

The following dates are proposed:

- latest date by which the existence of this document (doa) dor + 6 months has to be announced at national level
- latest date by which this document has to be (dop) dor + 12 months implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards (dow) dor + 36 months conflicting with this document have to be withdrawn (to be confirmed or modified when voting)

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.

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 When 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>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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	-

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IEC 62954

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

(standards.iteh.ai)

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

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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.

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.

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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.

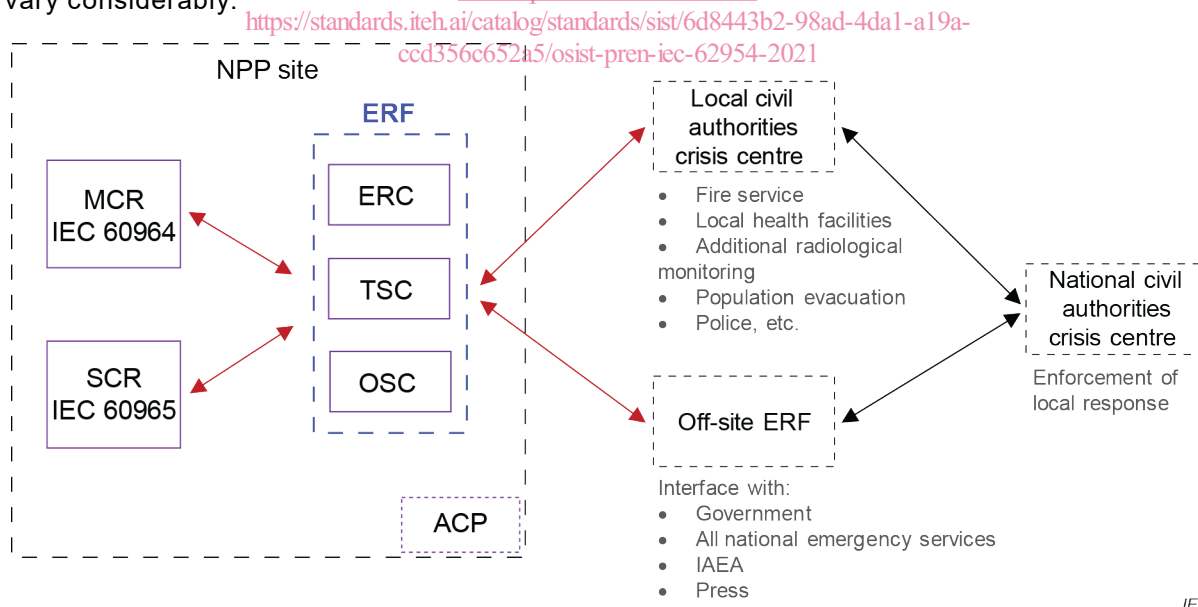


Figure 1 – On-site and off-site ERFs and communicating entities

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.