

STN	Jadrové elektrárne Dozorne Požiadavky na prostriedky núdzovej reakcie	STN EN IEC 62954 35 6618
------------	--	--

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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/21

Obsahuje: EN IEC 62954:2021, IEC 62954:2019

133553

EUROPEAN STANDARD

EN IEC 62954

NORME EUROPÉENNE

EUROPÄISCHE NORM

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)

This European Standard was approved by CENELEC on 2021-07-05. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

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.

<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 323	60780--	Nuclear facilities – Electrical equipment important to safety - Qualification	EN 60780-323	-



IEC 62954

Edition 1.0 2019-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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



THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2019 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search - webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 000 terminological entries in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

67 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Recherche de publications IEC -

webstore.iec.ch/advsearchform

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études,...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et une fois par mois par email.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: sales@iec.ch.

Electropedia - www.electropedia.org

Le premier dictionnaire d'électrotechnologie en ligne au monde, avec plus de 22 000 articles terminologiques en anglais et en français, ainsi que les termes équivalents dans 16 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

Glossaire IEC - std.iec.ch/glossary

67 000 entrées terminologiques électrotechniques, en anglais et en français, extraites des articles Termes et Définitions des publications IEC parues depuis 2002. Plus certaines entrées antérieures extraites des publications des CE 37, 77, 86 et CISPR de l'IEC.



IEC 62954

Edition 1.0 2019-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE



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

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 27.120.20

ISBN 978-2-8322-6384-6

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	9
2 Normative references	9
3 Terms and definitions	10
4 Symbols and abbreviated terms.....	12
5 ERF basis for design	12
5.1 General.....	12
5.2 Role and main features	12
5.2.1 General	12
5.2.2 Emergency Response Centre (ERC).....	13
5.2.3 Technical Support Centre (TSC).....	13
5.2.4 Operational Support Centre (OSC)	14
5.3 Availability and hazard withstand	14
5.4 Information to be available in ERF	15
6 ERF location and physical features.....	15
6.1 Location.....	15
6.2 Access routes	16
6.3 Access control	16
6.4 Environmental design.....	16
6.5 Other habitability aspects.....	16
6.6 Power supplies	17
6.7 Documentation.....	17
7 Principles of operation	18
7.1 Organisational aspects	18
7.2 Staffing	18
8 Human Machine Interface (HMI)	18
8.1 Room layout and workspace design	18
8.2 Hardware and software HMI design.....	18
9 Human Factors Engineering (HFE)	19
9.1 General.....	19
9.2 Operational experience	19
9.3 Functional analysis and assignment.....	19
9.4 Task analysis.....	19
9.5 Style guide.....	20
9.6 HFE verification and validation.....	20
10 Instrumentation and control equipment	20
10.1 Safety classification	20
10.2 Design of I&C equipment for ERF	20
10.3 I&C functions of the ERF.....	21
10.4 Testability	21
11 Equipment qualification	21
12 Communications	21
12.1 Communication principles	21
12.2 Nature of communications.....	21

12.3	Data communications.....	22
12.4	Verbal communications	22
12.5	Non-verbal communications	22
12.6	Communication confidentiality.....	22
13	Maintenance and training	23
13.1	Maintainability.....	23
13.2	Repairs	23
13.3	Periodic verification of equipment and perishable goods	23
13.4	Training and exercises	23
Annex A (informative) Extracts from IAEA Safety Guides relevant to ERF		24
Bibliography.....		26
Figure 1 – On-site and off-site ERFs and communicating entities.....		6

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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.

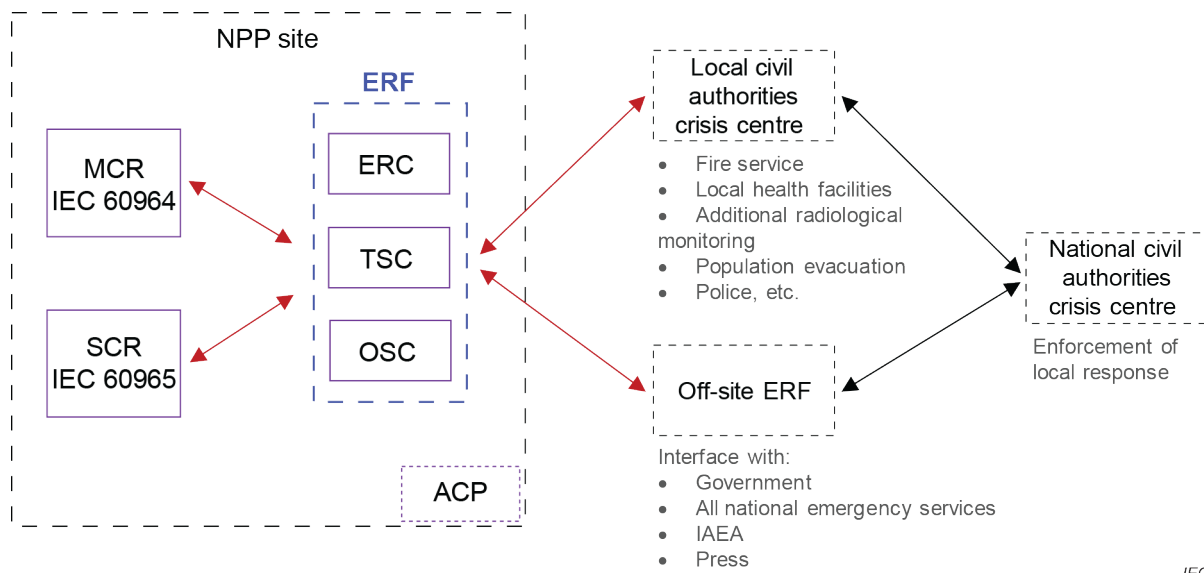


Figure 1 – On-site and off-site ERFs and communicating entities

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.

This standard was proposed after the Fukushima-Daiichi accident to take into account the lessons learned from those dramatic events. Several reports prepared after the accident, at national level (Japanese Government report) as well as at international level (IAEA fact finding mission) highlighted the role played by the Emergency Response Centre (ERC) during those events and identified the need to take into account the experience gained to strengthen the requirements for such a facility.

This led to the development of this standard, with the following principles:

- The scope should align with that of the relevant IAEA guidance, as given in SSR-2/1, Rev. 1 and GSR Part 7;
- The scope should address the three functional facilities related to Emergency Response that are addressed by the IAEA guidance (i.e. the ERC, TSC and OSC);
- The scope should be limited to such facilities that are on or near the NPP site. The scope should exclude activities in the scope of local response authorities;
- The requirements should be defined in terms of the functions that are to be performed;
- The standard should address the way in which the functions are invoked in response to different severities of incident / accident and any responsibilities that would be transferred from the MCR to the Emergency Response Facilities (ERFs);
- The scope should include consideration of the requirements for environment control, lighting, power supplies, access control of the ERFs, etc., as needed to enable the Emergency Response functions to be performed;
- The only “controls” that should be provided are those that relate to the services that provide the above mentioned environment control, lighting, power supplies, access control of the ERFs, etc.;
- The standard should recognize that a wide range of national or regional situations exist regarding the structure and arrangements for the off-site Emergency Response support.

This IEC standard specifically focuses on the issue of requirements relevant for the Emergency Response Facilities (ERFs).

It is intended that the Standard be used by designers and operators of NPPs (utilities), systems evaluators, vendors and subcontractors, and by licensors.

b) Situation of the current Standard in the structure of the IEC SC 45A standard series

IEC 62954 is at the third level of the IEC SC 45A standard series. It is to be considered as affiliated to IEC 60964, the top document on control rooms in the SC 45A standard series.

For a generic description of the structure of the IEC SC 45A standard series, see item d) of this introduction.

c) Recommendations and limitations regarding the application of the Standard

This standard establishes functional requirements for Emergency Response Facilities and clarifies the design and operation of the ERF systems to be used in case of incidents or accidents occurring on nuclear power plants (NPPs) and/or nuclear facilities.

It is recognized that this is an evolving area of regulatory requirements, due to ongoing analysis of the Fukushima lessons learned. Therefore, the goal of this project is to provide a standard, which defines the framework within which the evolving country or plant specific requirements may be developed and applied.

d) Description of the structure of the IEC SC 45A standard series and relationships with other IEC documents and other bodies documents (IAEA, ISO)

The top-level documents of the IEC SC 45A standard series are IEC 61513 and IEC 63046. IEC 61513 provides general requirements for I&C systems and equipment that are used to perform functions important to safety in NPPs. IEC 63046 provides general requirements for electrical power systems of NPPs; it covers power supply systems including the supply systems of the I&C systems. IEC 61513 and IEC 63046 are to be considered in conjunction and at the same level. IEC 61513 and IEC 63046 structure the IEC SC 45A standard series and shape a complete framework establishing general requirements for instrumentation, control and electrical systems for nuclear power plants.

IEC 61513 and IEC 63046 refer directly to other IEC SC 45A standards for general topics related to categorization of functions and classification of systems, qualification, separation, defence against common cause failure, control room design, electromagnetic compatibility, cybersecurity, software and hardware aspects for programmable digital systems, coordination of safety and security requirements and management of ageing. The standards referenced directly at this second level should be considered together with IEC 61513 and IEC 63046 as a consistent document set.

At a third level, IEC SC 45A standards not directly referenced by IEC 61513 or by IEC 63046 are standards related to specific equipment, technical methods, or specific activities. Usually these documents, which make reference to second-level documents for general topics, can be used on their own.

A fourth level extending the IEC SC 45 standard series, corresponds to the Technical Reports which are not normative.

The IEC SC 45A standards series consistently implements and details the safety and security principles and basic aspects provided in the relevant IAEA safety standards and in the relevant documents of the IAEA nuclear security series (NSS). In particular this includes the IAEA requirements SSR-2/1, establishing safety requirements related to the design of nuclear power plants (NPPs), the IAEA safety guide SSG-30 dealing with the safety classification of structures, systems and components in NPPs, the IAEA safety guide SSG-39 dealing with the design of instrumentation and control systems for NPPs, the IAEA safety guide SSG-34 dealing with the design of electrical power systems for NPPs and the implementing guide NSS17 for computer security at nuclear facilities. The safety and security terminology and definitions used by SC 45A standards are consistent with those used by the IAEA.

IEC 61513 and IEC 63046 have adopted a presentation format similar to the basic safety publication IEC 61508 with an overall life-cycle framework and a system life-cycle framework. Regarding nuclear safety, IEC 61513 and IEC 63046 provide the interpretation of the general requirements of IEC 61508-1, IEC 61508-2 and IEC 61508-4, for the nuclear application sector. In this framework IEC 60880, IEC 62138 and IEC 62566 correspond to IEC 61508-3 for the nuclear application sector. IEC 61513 and IEC 63046 refer to ISO as well as to IAEA GSR Part 2 and IAEA GS-G-3.1 and IAEA GS-G-3.5 for topics related to quality assurance (QA). At level 2, regarding nuclear security, IEC 62645 is the entry document for the IEC/SC 45A security standards. It builds upon the valid high level principles and main concepts of the generic security standards, in particular ISO/IEC 27001 and ISO/IEC 27002; it adapts them and completes them to fit the nuclear context and coordinates with the IEC 62443 series. At level 2, IEC 60964 is the entry document for the IEC/SC 45A control rooms standards and IEC 62342 is the entry document for the ageing management standards.

NOTE 1 It is assumed that for the design of I&C systems in NPPs that implement conventional safety functions (e.g. to address worker safety, asset protection, chemical hazards, process energy hazards) international or national standards would be applied.

NOTE 2 IEC/SC 45A domain was extended in 2013 to cover electrical systems. In 2014 and 2015 discussions were held in IEC/SC 45A to decide how and where general requirements for the design of electrical systems were to be considered. IEC/SC 45A experts recommended that an independent standard be developed at the same level as IEC 61513 to establish general requirements for electrical systems. Project IEC 63046 is now launched to cover this objective. When IEC 63046 is published this NOTE 2 of the introduction of IEC/SC 45A standards will be suppressed.

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

1 Scope

This document presents the requirements for the on-site emergency response facilities (referred to hereinafter as the “ERF”) which are to be used in case of incidents or accidents occurring on the associated Nuclear Power Plant (NPP). The ERF consists of the Emergency Response Centre (ERC), the Technical Support Centre (TSC) and the Operational Support Centre (OSC), as shown in Figure 1.

It establishes requirements for the ERF features and ERF I&C equipment to:

- coordinate on-site operational efforts with respect to safety and radioprotection;
- optimize the design in terms of environment control, lighting, power supplies and access control of the ERF;
- enhance the identification and resolution of potential conflicts between the traditional operational means and emergency means (MCR/SCR and ERF, operating staff and emergency teams, operational procedures and emergency procedures);
- aid the identification and the enhancement of the potential synergies between the traditional operational means and emergency means.

This document is intended for application to new nuclear power plants whose conceptual design is initiated after the publication of this document, but it may also be used for designing and implementing ERF in existing nuclear power plants or in any other nuclear facility.

Detailed equipment design is outside the scope of this document.

This document does not define the situations (reactor plant conditions, hazards and magnitudes of hazards) leading to mobilisation of emergency response teams and activation / use of the ERF. These aspects are usually addressed in the NPP Emergency Plan. However, the need for consistency of the ERF design and operation with the NPP Emergency Plan is within scope.

2 Normative references

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.

IEC/IEEE 60780-323, *Nuclear facilities – Electrical equipment important to safety – Qualification*

IEC 61226:2009, *Nuclear power plants – Instrumentation and control important to safety – Classification of instrumentation and control functions*

IEC 61513, *Nuclear power plants – Instrumentation and control important to safety – General requirements for systems*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN