![entsoe logo]

European Network of
Transmission System Operators
for Electricity

COMPLIANCE AUDIT REPORT

Red Eléctrica de España S.A

27 – 28 MAY 2015

**COMPLIANCE AUDIT CONDUCTED IN THE NATIONAL
CONTROL CENTRE IN MADRID BY ENTSO-E RGCE SG
CME**

<u>DISCLAIMER</u>

The present Compliance Audit Report is based on the information as provided by the audited company. This report is in no way a guarantee that security and reliability on the system of the audited company and/or overall synchronously interconnected system of the Regional Group Continental Europe (RGCE) is ensured. This report cannot be considered as a certification of whatever form. Finally, this report does not as such have any impact on the compliance, by the audited company and/or by any other member of ENTSO-E, with the RGCE Operation Handbook and/or any other relevant applicable standard.

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

Contents

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

1 EXECUTIVE SUMMARY

1.1 COMPLIANCE MONITORING IN ENTSO-E RGCE

The mission of the ENTSO-E System Operation Committee Regional Group Continental Europe (RGCE) is to improve the reliability and security of the interconnected power system in the Continental Europe through developing and enforcing RGCE Operation Handbook (OH) standards, monitoring the interconnected power system and assessing its future adequacy. The RGCE member TSOs are subject to compliance with all approved OH standards. The Compliance Monitoring Program (CMP) is the RGCE program that monitors and assesses compliance with these standards via:

- the annual process of self-assessment, which is applied to all TSOs, as well as

- the annual process of mandatory on-site compliance audits, which is applied to a certain number of TSOs chosen on a rotating base either directly (in case of doubts that a certain TSO complies with OH Standards) or randomly.

Sub-Group Compliance Monitoring & Enforcement (SG CME) is in charge of performing above mentioned two processes. The 2015 is the 6th year of conducting mandatory compliance audits. SG CME performed 4 voluntary compliance audits in 2008-2009 and 36 mandatory audits in 2010-2015.

1.2 AUDITED TSO

The RGCE member TSO Red Eléctrica de España, S.A. (hereafter REE) was chosen for a Compliance Audit in 2015. CME conducted the audit on 27 & 28 May 2015 in Madrid (REE premises), Spain.

1.3 AUDITED OH STANDARDS

The Compliance Audit encompassed 14 requirements/standards of Operation Handbook Policy 8 (Operational Training). In 2014, REE made compliance declarations in the self-assessment process for all standards of OH Policy 8, all of which have been checked against their evidence during the audit.

1.4 RESULTS

During the onsite audit, the Audit Team had the opportunity of visiting the national control room and training centre, what helped the Audit Team to better understand the organisation and processes in the system of REE. Presentation of installed DTS with a black start simulation performed by REE dispatchers was a significant part of this visit.

The Audit Team audited 14 requirements/standards. The Audit Team concluded that REE is fully compliant with all of the audited standards.

REE was very well prepared for the audit. Although documents and procedure descriptions were provided only in Spanish, members of Audit Team were able to understand and therefore properly verify them.   All the documents considered as evidence were available during the audit, being most of them provided by the SAP REE database. Ultimately, evidence was a good basis for proving the compliance level of REE with the audited standards. Requests for additional material were promptly met.

In the case of this Compliance Audit, all preconditions for a successful audit were fulfilled and the Audit Team wishes to express its gratitude to the REE staff involved in the Audit and the company management.

Table 1 describes REE compliance declaration in self-assessment questionnaires 2009 and 2014 and compliance audit questionnaire 2015 with compliance level suggestion by the Audit Team after reviewing the evidence for the audited standards.

European Network of
Transmission System Operators
for Electricity

TABLE 1: COMPLIANCE LEVEL CHANGES FOR THE AUDITED OH STANDARDS

OH Standard	Self-assessment questionnaire 2009	Self-assessment questionnaire 2014	Compliance audit questionnaire 2015	On site compliance audit 2015
P8-A-R1 TRAINING PROGRAM	FCo	FCo	FCo	FCo
P8-A-R2 INITIAL PROGRAM	FCo	FCo	FCo	FCo
P8-A-R3 CONTINUOUS PROGRAM	FCo	FCo	FCo	FCo
P8-A-R4 ENGLISH TRAINING	FCo	FCo	FCo	FCo
P8-A-S1 TRAINING PROGRAMS	SCo	FCo	FCo	FCo
P8-A-S2 TSO REFERENCE LIST OF ENGLISH TECHNICAL TERMS	FCo	FCo	FCo	FCo
P8-B-R1 EXPERIENCE EXCHANGE	FCo	FCo	FCo	FCo
P8-B-S1 COMMON TRAINING	FCo	FCo	FCo	FCo
P8-C-S1 COORDINATION OF THE TRAINING	FCo	FCo	FCo	FCo
P8-C-S2 ORGANIZATION	FCo	FCo	FCo	FCo
P8-C-S3 EVALUATION	FCo	FCo	FCo	FCo
P8-C-S4 FIRST ACCREDITATION	FCo	FCo	FCo	FCo
P8-C-S5 TRAINERS' SELECTION	FCo	FCo	FCo	FCo
P8-C-S6 TRAINING OF TRAINERS	FCo	FCo	FCo	FCo

Page 5 of 44

2 AUDIT REPRESENTATIVES

The Audit Team has the task to prepare and perform the Compliance Audit as well as to develop the corresponding audit report. The Audit Team composition is given in Table 2. The TSO subject to a compliance audit may object any member of the Audit Team on the basis of a conflict of interests or the existence of other circumstances that could interfere with the impartial performance of his or her duties. The audited TSO is obligated to express its concerns with the proposed team member four weeks prior to the team's arrival on-site. No objection was expressed by REE. REE personnel involved in the audit are given in Table 3.

TABLE 2. SG CME AUDIT TEAM

Audit Team role	Company or association	Name	Email address
Audit team leader	SEPS	Martin Jedinak	martin.jedinak@sepsas.sk
Audit team member	50Hertz	Ana Cigarán	ana.cigaranromero@50hertz.com
Audit team member	ČEPS	Martin Rehacek	rehacekm@ceps.cz
Compliance Monitoring Advisor	ENTSO-E Secretariat	Carlos Castel	carlos.castelconesa@entsoe.eu

TABLE 3. REE AUDIT STAFF

Function in the company	Name
Deputy General Manager of System Operation & Electricity Markets Division	MIGUEL DUVISÓN
Head of Control Center Department	JUAN BOLA MERINO
Head of Talent Management Department	ANA ABRIL
Technician of Talent Management Department. Operators' Trainer	CONSTANTINO RODRIGUEZ
Technician of Talent Management Department. Operators' Trainer	RICARDO REQUENA
Technician of Control Centre Department. Responsible of CECORE Control Center.	ROSALIA RIVAS SAIZ
Technician of Electrical Supply Guarantee Department	ALEJANDRO BLANCO
Technician of Electrical Supply Guarantee Department	MARIA DE LA O RODRIGUEZ
Head of Electrical Supply Guarantee Department	MARIA CONCEPCIÓN SANCHEZ

3 AUDIT PLAN

3.1 GENERAL PROCEDURES

The audit covered a chosen set of Operation Handbook (OH) Policy 8 standards which were already monitored within the Compliance Monitoring Program 2009 and 2014 self-assessment process.

The completed Audit Worksheet was sent by email to the ENTSO-E Secretariat and carbon copies to all Audit Team members four weeks before the first audit day. The complete schedule of the audit process for REE is given in Table 4.

In preparation for the audit, REE organised its supporting compliance documentation as evidence of the compliance with audited standards. The ENTSO-E RGCE SG CME acknowledges a good preparation for the audit.

All documentation (evidence) required for the onsite audit of each standard was available in hard or electronic format during the audit. Responsible expert personnel were available during the audit to provide guidance to the Audit Team on where to look in the documentation for compliance to the OH standard and, if requested, to give further explanation on criteria and procedures implemented.

All documentation will be considered as confidential audit records and treated as such. The Audit Team will prepare a public report of its audit findings.

European Network of
Transmission System Operators
for Electricity

TABLE 4. SCHEDULE FOR THE COMPLIANCE AUDIT

Submittal of the audit material on behalf of the Audit Team	**8 weeks prior to audit** 1.4.2015
Objection or concern about audit team personnel	**5 weeks prior to audit** 22.4.2015
Submittal of the completed Audit Worksheet to the Audit Team by REE	**4 weeks prior to audit** 29.4.2015
Initial feedback based on the submitted Audit Worksheet sent to REE by the Audit Team	**2 working days prior to audit** 25.5.2015
Opening meeting of the Audit Team and CAM of REE (1) Introduction of the Audit Team members, (2) Description of how the on-site audit will be conducted, (3) Discussion on how confidential information will be handled, (4) Discussion on data access required by the Audit Team, (5) Announcement that REE will be asked to provide feedback on the audit process and results, (6) Presentation of the TSO and TSO's organization.	**First audit day, 27.5.2015 09:00 – 09:30**
Start of the OH standards' review*	**First audit day, 27.5.2015 09:30 – 17:30**
Continuation of the OH standards' review	**Second audit day, 28.5.2015 09:00 – 12:30**
Internal Audit Team meeting	**Second audit day, 28.5.2015 12:30 – 14:00**
Closing meeting with CAM of REE (1) Presentation of preliminary audit findings and recommendations to be included on the draft audit report, with a strong emphasis on the evidence for each compliance level or non-compliance identified by the Audit Team, (2) Discussion and feedback by REE with a possibility to object the findings, (3) In case of any non-compliance or lack of evidence of compliance, first draft proposal of the TSO on an adequate mitigation plan, including deadline. Should such an immediate proposal not be possible, the TSO must submit it afterwards in written copy within seven days.	**Second audit day, 28.5.2015 14:00 – 15:30**
Delivery of the draft audit report to REE for review	**2 weeks after the audit** 11.6.2015
Remarks by REE	**4 weeks after the audit** 25.6.2015
Delivery of the final audit report to REE	**6 weeks after the audit** 9.7.2015
Acknowledgement of the final Audit Report by ENTSO-E RGCE Plenary and decision on its possible internal or external publishing.	**RGCE Plenary in 2016**

(*) A visit in the control room and training centre has been performed by the Audit Team during the standards' review.

3.2 SCOPE

The objective of Compliance Audits in 2015 is to check all the requirements/standards from OH Policy 8. These standards were also monitored in the 2009 and 2014 regular compliance processes via the self-assessment questionnaire.

The scope of a compliance audit encompasses issues which are directly related to the compliance of the audited TSO with the investigated RGCE OH standards and issues which make a general background for the implementation of the OH at the audited TSO.

Directly related issues

Issues directly related to the audited RGCE OH standards:

- Existence of TSO's addenda and/or non-compliance declarations/non-compliance self-reports
- Follow-up of the TSO's mitigation plans to remove the declared non-compliances
- Self-assessment questionnaires of 2009 and 2014 stored at the ENTSO-E Secretariat related to audited TSO concerning the audited OH standards
- Audit Worksheet (AW) 2015
- Information and explanations which the Audit Team receives on site

General background

The compliance audit also encompasses issues of general nature listed below:

- General policies of the audited TSO rules and procedures for the control centre(s) related to the audited standards
- Procedures to control the application of the audited OH standards and their follow-up
- Procedures to improve the compliance with the audited OH standards
- TSO's internal report related to the implementation of the audited OH standards
- TSO's internal audits and/or documentation concerning implementation of OH standards
- TSO's internal bodies (forums, panels) for the implementation of the OH standards
- Follow-up to the Compliance Audit in 2012

3.3 METHODOLOGY

The CME group prepared an audit schedule defining the chronological order of the compliance audit, which the audited TSO accepted without comment. The Audit Team reviewed the existing material on the audited TSO and its neighbouring TSOs already collected through the self-assessment process in the 2009 and 2014 self-assessment questionnaires. It also processed (assessed) the answers in the 2015 Audit Worksheet filled in by the audited TSO.

The applied methodology includes audit criteria and expectations based on best practices. The adopted criteria are objective, measurable (if possible), complete and relevant to the objectives. At defining the audit methodology, the auditors identified the potential sources of audit evidence and estimated the amount and type of evidence needed.

The Audit Team used an Audit Worksheet (see chapter 4) for reviewing the audited OH standards. The purpose of the AW is to ensure consistency and fairness. By using the AW the Audit Team documented the material reviewed and the observations made. One of the main reasons for an on-site visit is to review the existing documentation and to interview the staff. Thus, the auditors obtain "objective evidence" which support the self-assessed declarations of the audited TSO. The Audit Team determined whether the evidence presented by the TSO is sufficient. They did this by assessing the relevance, validity and reliability of the information and documentation presented.

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

It was the responsibility of the audited TSO to provide evidence of compliance with all audited OH standards. In most cases the evidence was in written form like documents, plans, programs or records. In some cases the evidence consisted of a review of computerized records or additional supporting material provided at interviews by the staff of the audited TSO.

3.4 EVALUATION PRINCIPLES

Preparatory phase – activities in charge of Audited TSO

- Inspection of the exact wording of each audited OH standard and of additional questions formulated by the CME

- Fill in the audit questionnaire and submit to the Audit Team before the audit

- Identification of documents and other material to present to the auditors in order to demonstrate its compliance level with each OH standard

Preparatory phase – activities in charge of CME Audit team

- Identification of compliance level declaration inconsistency with neighbouring TSOs (Self-assessment questionnaire 2014 cross-border check regarding compliance level declarations)

- Analysis of the explanations and comments which the audited TSO made in the self-assessment 2014 and audit questionnaires 2015 in written form in order to evaluate the quality of explanations and comments

- Identification of the missing explanations in the self-assessment 2014 and audit questionnaire 2015

- Analysis of the improvements achieved during the implementation of mitigation and improvement plans declared in the MLA Addendum/Addenda, in the self-assessment questionnaire 2014, in the Audit Worksheet 2015 and in Compliance Audit in 2012 in case of non-compliance and sufficient compliance or recommendations

Audit phase

- Request to the audited TSO to give additional explanations, especially related to standards which were not or not fully addressed by documents and other material mentioned in the self-assessment questionnaire 2014 and audit questionnaire 2015.
  - The goal was to improve the quality of the explanations.

- Request to the audited TSO to present that evidence and, if necessary, additional evidence, in printed or electronic form
  - The goal was to improve the quality of the presented evidence.
  - The goal was to present material relevant to the audited OH standard at all.

- Request to the audited TSO to remark the titles of all presented documents, their relevant chapters and even relevant passages.

- Request to the audited TSO to provide further written explanations related to the presented material.

3.5 CONFIDENTIALITY

By signing this report the Audit Team members assure that they will maintain the confidentiality of information obtained during the compliance audit and drafting of the audit report. Moreover, they express their readiness to sign a supplementary confidentiality agreement, if the audited TSO assert such a claim.

4 AUDIT WORKSHEET FOR 2015 ONSITE AUDIT

4.1 OH REQUIREMENT P8-A-R1. TRAINING PROGRAM

SELF-ASSESSMENT QUESTIONNAIRE 2014
P8-A-R1
Training program. Each TSO provides its dispatchers with a structured training program that is designed to develop and improve their skills. This program includes initial and continuous parts. The training has to be permanently adapted to the operational evolutions. All the issues of the training have to be regularly checked and updated.
Compliance Level: FCo

Additional Questions

Do you have a training program including both initial and continuous part?	yes
Do you adapt the training program according to the operational evolutions?	yes
Do you have criteria to check whether the training program is in accordance with the current operational challenges?	yes

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entso**e**

AUDIT QUESTIONNAIRE 2015

P8-A-R1

Training program. Each TSO provides its dispatchers with a structured training program that is designed to develop and improve their skills. This program includes initial and continuous parts. The training has to be permanently adapted to the operational evolutions. All the issues of the training have to be regularly checked and updated.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

Regular meetings between trainers and operator managers are performed, at least once a year, to decide the training plan for next year. Any new or relevant equipment in the network like HV-DC Links, FACTS, etc. is included in the operators training program as they have been set in service in REE network. Changes to O.H. Network Codes and any other relevant issue for system operation are considered in our training programs.

Each REE peninsular operators receive a 25 hour/year of simulator practice on emergency and restoration situations.

Do you have a mitigation plan to the requirement? Yes ☐ No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Do you have a training program including both initial and continuous part?

Yes ☒ **No** ☐

Do you adapt the training program according to the operational evolutions?

Yes ☒ **No** ☐

Do you have criteria to check whether the training program is in accordance with the current operational challenges?

Yes ☒ **No** ☐

List of evidence, comments:

Acts of the annual meetings; content of the different training session held in the past years (power points, etc.); scope and description of initial training program; training documentation and materials used in the Initial and continuous training programs.

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

AUDIT PHASE

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo

Explanation for the suggested compliance level:
The training program Processes Operation School (*EOP-Procedimientos Escuela Operacion*) issued by talent management department was presented to the audit team. It consist of the following chapters:

- Teaching *("Impartición")*
- Evaluation of Training activities *("Evaluación de acciones formativas")*
- *Codification ("Codificación")*
- Trainer requisites *("Cualificación de intstructores")*
- Training material production *("Elaboración de material didáctico")*
- Training on the job *("Entrenamieto en el puesto")*
- Continuous Training *("Formación continua")*
- Initial Training *("Formación inicial")*
- Training evaluation *("Evaluación de la formación")*

EOP-07 Continuous Training *"EOP-07 Formación continua (2004)"* describes the roles of each department involved in the creation of the continuous program (HR and Control centre).

EOP-08 Initial Training *"EOP – 08 Formación inicial (2004)"* provides a general description of operator skills and necessary training support

The Audit Team found out that regular meetings between trainers and operator managers take placeat least once a year to decide the training plan for next year. Minutes of meetings were presented to the Audit Team:

- MoM 12/2009 ("*Acta de reunión Escuela Corporativa de Red Eléctrica*")
- MoM 11/2013 ("*Acta de reunión Escuela Corporativa de Red Eléctrica*")

Audit team recommendations:
The Audit Team recommends updating the training procedures (EOP) dated in 2004.

4.2   OH REQUIREMENT P8-A-R2. INITIAL PROGRAM

SELF-ASSESSMENT QUESTIONNAIRE 2014

P8-A-R2.
Initial program. The initial program consists of a theoretical part and on-the-job part complemented by simulator sessions.
Compliance Level: FCo
Additional Questions
Does your initial program consist of theoretical part?   yes

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

Does your initial program consist of on-the-job part?	yes
Does your initial program include simulator sessions?	yes

AUDIT QUESTIONNAIRE 2015

P8-A-R2.

Initial program. The initial program consists of a theoretical part and on-the-job part complemented by simulator sessions.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

REE initial training program consists of 6 months of theoretical and simulator sessions plus 3 months of OJT supervised by an experienced operator.

Do you have a mitigation plan to the requirement?   Yes ☐   No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Does your initial program consist of theoretical part?	**Yes** ☒	**No** ☐
Does your initial program consist of on-the-job part?	**Yes** ☒	**No** ☐
Does your initial program include simulator sessions?	**Yes** ☒	**No** ☐

List of evidence, comments:

Schedule of the last initial training program (9 months internship) with all the subjects treated and all the documentation generated, including exams of each relevant subject, shift schedule of OJT of each candidate; list of mentor assigned for each operator candidate; program and structure of subjects dealt during the OJT.

AUDIT PHASE

<table>
<tr><td align="center">**COMPLIANCE AUDIT 2015**</td></tr>
</table>

Compliance Level suggestion by the audit team:
FCo

Explanation for the suggested compliance level:

The initial program Expert in electricity power system operation ("*Curso de especialista en operación del Sistema eléctrico*" – 1100h) is a joint program between REE and Pontifical University of Comillas.

The program from 2013-2014 was presented to the audit team with the following contents:
- Theoretical part - 6 months ("*Fundamentos teoricos de sistemas electricos*")
  - 10 modules with a dedicated exam after each one.
  - DTS
- Practical part – 3 months on the job
  - Daily business in electricity power system operation and Black start training ("Aplicaciones prácticas en control y operación de la red incluido black start")

- Additional courses are performed:
  - Expert in electricity power system operation *("Especialistas en operación del Sistema eléctrico")*
  - Quality Systems *("Sistema de gestión de calidad")*
  - English *("Inglés")*
  - French *("Francés")*
  - Security information *("Informativa de seguridad PLR")*
  - Discover Red Electrica ("*Conoce Red Eléctrica.*")

The audit team was provided with the following evidence downloaded from REE database:
- List of courses taken since 2008 till 2015 by all the operators.
- Statistics data about the attendance of dispatchers to the initial training program:
  - In 2008 - 6 new operators
  - In 2009 - 7 new operators
  - In 2010 - 2 new operators
  - In 2011/2012 – 0 new operators
  - In 2013 - 3 new operators
  - In 2014 - 4 new operators
  - In 2015 - 1 new operator.
- Detailed training schedules

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

4.3 OH REQUIREMENT P8-A-R3. CONTINUOUS PROGRAM

<table>
<tr><td colspan="2" align="center">SELF-ASSESSMENT QUESTIONNAIRE 2014</td></tr>
<tr><td colspan="2">P8-A-R3.</td></tr>
<tr><td colspan="2">Continuous program. The continuous program is applied to all dispatchers as soon as they are certified and nominated to a dispatcher position. The main aim of the continuous program is to keep and extend the dispatchers' knowledge and competences. The continuous program is established to complement the initial program with: advanced theoretical parts; learning of new rules and procedures; additional simulator sessions.</td></tr>
<tr><td colspan="2">Compliance Level: FCo</td></tr>
<tr><td colspan="2">Additional Questions</td></tr>
<tr><td>Are your dispatchers taught on advanced theoretical parts in the continuous training program?</td><td>yes</td></tr>
<tr><td>Are your dispatchers taught on new rules and procedures in the continuous training program?</td><td>yes</td></tr>
<tr><td>Do your dispatchers perform additional simulator sessions in the continuous training program?</td><td>yes</td></tr>
</table>

<table>
<tr><td colspan="2" align="center">AUDIT QUESTIONNAIRE 2015</td></tr>
<tr><td colspan="2">P8-A-R3.</td></tr>
<tr><td colspan="2">Continuous program. The continuous program is applied to all dispatchers as soon as they are certified and nominated to a dispatcher position. The main aim of the continuous program is to keep and extend the dispatchers' knowledge and competences. The continuous program is established to complement the initial program with: advanced theoretical parts; learning of new rules and procedures; additional simulator sessions.</td></tr>
<tr><td colspan="2">Compliance Level: FCo</td></tr>
<tr><td colspan="2">Concise explanation and list of evidence for declared compliance level:</td></tr>
<tr><td colspan="2">When a candidate successfully finishes the Initial Training Program and is hired by REE for an operator position automatically gets into the Continuous Training Program. This program consist of 20 hours/year of system restoration with simulator plus other simulations exercises that are changed every year according to operation needs. Always regarding alert or emergency conditions in the network. Additional training known as "Human Factor" is done in a 2 year basis to improve operator human skills like empathy negotiation, communications, conflicts resolution, etc. Specific technical courses are also included in the continuous training program (HVDC, FACTS, frequency and control, training on new applications...).</td></tr>
</table>

Do you have a mitigation plan to the requirement?   Yes ☐   No ☐

> In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Are your dispatchers taught on advanced theoretical parts in the continuous training program?   **Yes** ☒   **No** ☐

Are your dispatchers taught on new rules and procedures in the continuous training program?   **Yes** ☒   **No** ☐

Do your dispatchers perform additional simulator sessions in the continuous training program?   **Yes** ☒   **No** ☐

List of evidence, comments:

Training material (documents, power points, etc) used every year in our training programs. Report of training courses received by each operator.

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo

Explanation for the suggested compliance level:
REE proved that they continuously train all its 113 dispatchers. The monitoring of training attendance shows that the scheduling of training has a high priority in REE.

The minutes of the meeting, where the continuous training program was approved for 2014, were presented to the audit team. This document shows that the continuous program is adapted to the needs offering a variety of courses such as:

- Wind power generation *("Centrales de generación energía eólica")*
- System restoration operational plans *('Planes de reposición práctica Operativa")*
- English *("Inglés")*
- French *("Francés")*
- DTS sessions (20h in 3 days)

The access to REE data base shows the annual minutes of meeting ("*Acta de reunion*-2013"). This document describes the detailed DTS continuous training program where new rules are included if necessary e.g implementation of EAS.

Besides the yearly continuous program, when a change in any REE Operational Handbook document is approved or updated, the control centre head distributes an e-mail to all dispatchers. Dispatchers

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

have to reply stating that they have read and understood the document. A log document ("*Firmas Operadores*") shows the date of reply of each operator.

Certifications/attendance signed by the trainers and operators for 2014 were shown to the Audit Team. The certificate is issued by REE Corporate School ("Escuela Corporativa de Red Electrica" (ECRE)).

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

4.4 OH REQUIREMENT P8-A-R4. ENGLISH TRAINING

SELF-ASSESSMENT QUESTIONNAIRE 2014
P8-A-R4.
English training. Dispatchers in contact with neighboring control areas shall have sufficient knowledge of English and operational terms to carry out their tasks, ensuring the safe and smooth flow of information in an international environment using clear expressions in order to ease an immediate understanding.
Compliance Level: FCo

Additional Questions	
Do you verify English speaking skills of your dispatchers who are in contact with neighbouring control areas?	Yes
Does the learning of English technical terms relevant to system operation make a part of the dispatcher training for those dispatchers who are in contact with neighboring control areas?	Yes

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

AUDIT QUESTIONNAIRE 2015

P8-A-R4.

English training. Dispatchers in contact with neighboring control areas shall have sufficient knowledge of English and operational terms to carry out their tasks, ensuring the safe and smooth flow of information in an international environment using clear expressions in order to ease an immediate understanding.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

Those operators that have to talk to neighbor TSO (RTE and REN) are receiving continuous training to improve their English language skills. All operators receive training in French language to talk to SESO and CNES (France) and to ONE (Morocco). To talk to REN, they use Spanish.

Do you have a mitigation plan to the requirement? Yes ☐ No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Do you verify English speaking skills of your dispatchers who are in contact with neighbouring control areas?	**Yes** ☒	**No** ☐
Does the learning of English technical terms relevant to system operation make a part of the dispatcher training for those dispatchers who are in contact with neighboring control areas?	**Yes** ☒	**No** ☐

List of evidence, comments:

English level tests of Head Shift operators (those operators who are responsible of the communication to other TSO's); follow up of English training for each Head Shift English training program attendance, monitored level of each participant, etc.) based on registers from REE internal information platform.

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo
Explanation for the suggested compliance level:
REE is aware of the necessity of supporting their dispatchers with language training. The English courses combine technical and communicative aspects. Besides English, REE uses French (Morocco and RTE) and Spanish (REN). The language of communication with neighbouring TSOs is based on corresponding bilateral agreements. Minimum requirements of English skills (level B1) are defined for head shift operators.

Following documents were shown to the Audit Team as evidence:
* English Training Operation Monitoring report, which includes validation of levels for each English training period (September-June).

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

- Detailed program (English by phone, web based lessons, physical courses) with the level of each operator (A1, A2, etc.).
- Predefined sentences to communicate with RTE ("*Annex 2* from SOA").
- Overview of current English and French level for each head shift dispatcher.
- The list of technical English terms is available in the control centre.

4.5 OH STANDARD P8-A-S1 TRAINING PROGRAMS

SELF-ASSESSMENT QUESTIONNAIRE 2014

P8-A-S1.

Training programs. The initial and continuous program has to consider the relevant parts of the UCTE Operation Handbook and mutual agreements between TSOs. Each TSO defines its specific requirements for the initial program and the continuous program and their duration.

Compliance Level: FCo

Additional Questions

Does your initial training program cover agreements between TSOs?	Yes
Does your initial training program consider the relevant parts of the UCTE OH?	Yes
Does your continuous training program cover agreements between TSOs?	Yes
Does your continuous training program consider the relevant parts of the UCTE OH?	Yes
Do you define specific requirements and duration of the initial program and the continuous program?	Yes

AUDIT QUESTIONNAIRE 2015

P8-A-S1.

Training programs. The initial and continuous program has to consider the relevant parts of the UCTE Operation Handbook and mutual agreements between TSOs. Each TSO defines its specific requirements for the initial program and the continuous program and their duration.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

Our training programs include all these issues. Operators have received a specific course about UCTE Operation Handbook. Additionally, the UCTE Operational Handbook has been included as part as the

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

REE Operational Handbook, so are known by operators. Specific lessons related to inter TSOs coordination are carried out during simulator trainings.

Do you have a mitigation plan to the standard?   Yes ☐   No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Does your initial training program cover agreements between TSOs?	**Yes** ☒	**No** ☐
Does your initial training program consider the relevant parts of the UCTE OH (ENTSO-E RGCE OH)?	**Yes** ☒	**No** ☐
Does your continuous training program cover agreements between TSOs?	**Yes** ☒	**No** ☐
Does your continuous training program consider the relevant parts of the UCTE OH (ENTSO-E RGCE OH)?	**Yes** ☒	**No** ☐
Do you define specific requirements and duration of the initial program and the continuous program?	**Yes** ☒	**No** ☐

List of evidence, comments:

Documentation about the training programs (initial and continuous) demonstrates REE is FCo with this requirement. Report of courses received by each operator. REE Operational Handbook document DEX-0-020 which content are the UCTE Policies of the Operational Handbook, with the correspondent each operator reading acknowledgment.

Documentation and scope of specific training simulator exercise about RTE-REE coordination in emergency situations (NTO-0-083 Coordinated REE-RTE actions in case of frequency deviation higher than +/- 200 mHz, lost of synchronism or local blackout).

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo
Explanation for the suggested compliance level:
The RGCE OH is available in the REE intranet and in the REE operational handbook. Training in RGCE OH is done during the initial training program and the corresponding material is translated to Spanish for a better understanding of the dispatchers.
For evidence see explanation in P8 A-R2 and P8 A-R3.

- This training is performed during assigned office hours.
- Specific agreements (Spanish and English) with RTE e.g. (*Common and coordinated action done by TSO in case of collapse*) - are included in the continuous and initial training.
- Implementation of new ENTSO-E or RGCE standards is included in the training program, and all operators confirm by e-mail that they have read and understood them.
- A web based application monitors and provides the training material. A detailed demonstration was presented to the Audit Team.

4.6 OH STANDARD P8-A-S2 TSO REFERENCE LIST OF ENGLISH TECHNICAL TERMS

SELF-ASSESSMENT QUESTIONNAIRE 2014
P8-A-S2.
TSO reference list of English technical terms. Each TSO makes available a reference list of technical terms in English with translation to the mother language of dispatchers for operation and for training based on the existing UCTE reference list (see Appendix 8).
Compliance Level: FCo
No Additional Questions

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

AUDIT QUESTIONNAIRE 2015

P8-A-S2.

TSO reference list of English technical terms. Each TSO makes available a reference list of technical terms in English with translation to the mother language of dispatchers for operation and for training based on the existing UCTE reference list (see Appendix 8).

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

DEX-0-020 Appendix 19 Spanish-English Technical Terms Dictionary.

This document is known by operators and available for consultation at the operators desktop computer.

Do you have a mitigation plan to the standard?   **Yes** ☐   **No** ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

List of evidence, comments:

DEX-0-020 Appendix 19 Spanish-English Technical Terms Dictionary

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo

Explanation for the suggested compliance level:
REE supports its dispatchers with the reference list of English terms of Appendix 8-Terminology ("*Anexo* 18 DEX-0-020 1/14-04-15"). Furthermore, an operational communication guide in French is also provided. Hard copies of both documents are available in the control centre.

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

4.7 OH REQUIREMENTS P8-B-R1. EXPERIENCE EXCHANGE.

SELF-ASSESSMENT QUESTIONNAIRE 2014

P8-B-R1.

Experience exchange. TSOs have to exchange the operational experience with their neighbours in order to cope with normal and abnormal situations in a coordinated way.

Compliance Level: FCo

Additional Questions

Do your dispatchers participate in the exchange of the operational experience with neighbouring TSOs?	Yes

AUDIT QUESTIONNAIRE 2015

P8-B-R1.

Experience exchange. TSOs have to exchange the operational experience with their neighbours in order to cope with normal and abnormal situations in a coordinated way.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

Periodical High level meetings with REN and RTE to exchange operational experiences and improve TSO-TSO coordination.

Weekly operational teleconference with REN and RTE to Exchange information about previous week,

With REN and RTE inter-TSO operation common training, as explained in P8-B-R1.

Do you have a mitigation plan to the requirement? Yes ☐ No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Do your dispatchers participate in the exchange of the operational experience with neighbouring TSOs?	Yes ☐	No ☐

List of evidence, comments:

Minutes of the high levels meeting with RTE & REN. Weekly teleconference reports with RTE and REN. Evidences of P8-B-R1

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

COMPLIANCE AUDIT 2015
Compliance Level suggestion by the audit team: FCo **Explanation for the suggested compliance level:** Bilateral weekly communication takes place with RTE and REN, respectively, control centre departments (head chief and back office staff) every Friday to discuss operational issues from previous and following week. The weekly teleconference report is available for dispatchers. Minutes of meeting and exchange of e-mails were shown to the Audit Team as evidence. Furthermore, REE also exchanges experience in the following cases: • Every two months meeting with REN (last on September 16th 2014). • Every 6 months meeting with RTE (last on 4th November 2014). • Twice a year, a meeting among the management of REE, RTE, ONE, Sonelgaz and STEG (IESOE) takes place. • Active role providing convenorship and participation in ENTSO-E Academy.

4.8   OH STANDARD P8-B-S1 COMMON TRAINING

SELF-ASSESSMENT QUESTIONNAIRE 2014
P8-B-S1.
Common training. Each TSO implements at least one of the four actions defined in guidelines P8-B-G3 to improve communication and coordinated measures between neighbouring TSO dispatchers. The actions taken have to be chosen depending on the mutual level of risks for secure system operation with the first (or further) neighbouring TSO.
Compliance Level: FCo
Additional Questions Which actions defined in guidelines P8-B-G3 do you implement? [**Guidelines P8-B-G3. Inter-TSO common training**. The common training can be implemented in the following ways: G3.1. Cross visits between neighbouring TSOs dispatchers.; G3.2. Common training workshops.; G3.3. On-shift cross periods.G3.4. Common DTS training sessions.] **REN RTE** G3.4 G3.4

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

AUDIT QUESTIONNAIRE 2015

P8-B-S1.

Common training. Each TSO implements at least one of the four actions defined in guidelines P8-B-G3 to improve communication and coordinated measures between neighbouring TSO dispatchers. The actions taken have to be chosen depending on the mutual level of risks for secure system operation with the first (or further) neighbouring TSO.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

REN:

- Common DTS training sessions. Simulation of blackout affecting REE and RNE network to train coordination in network restoration. (G.3.4)

RTE:

- Common DTS training sessions. Simulation of blackout affecting REE and RTE network to train coordination in network restoration. (G.3.4).
- Common DTS training sessions: common operators training on alert and emergency situation. Specific training exercises focus on inter TSO coordination and communication. (G.3.4)
- Cross visits between neighbouring TSO dispatchers (G.3.1). Biannual cross visits.
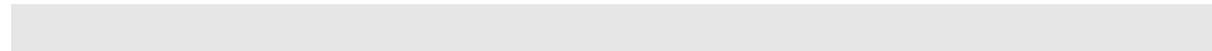
Do you have a mitigation plan to the standard?   Yes ☐   No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Which actions defined in guidelines P8-B-G3 do you implement?
[**Guidelines P8-B-G3. Inter-TSO common training**. The common training can be implemented in the following ways: G3.1. Cross visits between neighbouring TSOs dispatchers.; G3.2. Common training workshops.; G3.3. On-shift cross periods.G3.4. Common DTS training sessions.]

Neighbour	G3.1	G3.2	G3.3	G3.4
REN	☐	☐	☐	☒
RTE	☒	☐	☐	☒

List of evidence, comments:

Evidences and documentation of 2010 REE-RTE-REN blackout simulation training: video, final document, list of participants... Documentation of REE-RTE training exercises. List of operators that have done the cross visit with RTE.

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo
 	
Explanation for the suggested compliance level:
 	
REE proved adherence to following guidelines related to this standard:
• G3.1 with RTE
  ○ Since 2009 nine cross visits have been performed with RTE.
• G3.4 with REN and RTE
  ○ In 2010 an incident simulation ("*Simulacro de reposición del servicio eléctrico")* was performed by RTE REN REE, Spanish distribution companies and Spanish generation companies.
  ○ Scenarios for training were shown as evidence (SCENARIO N1- Overload on 400kV RTE Grid, generation shutdown on REE side).
  ○ 8 DTS sessions have been performed with RTE since 2009.
 	
Recommendation:
The Audit Team recommends REE to organize common training with REN more frequently.

4.9 OH STANDARD P8-C-S1 COORDINATION OF THE TRAINING

SELF-ASSESSMENT QUESTIONNAIRE 2014
P8-C-S1
Coordination of the training. TSO appoints a training coordination manager responsible for training organization: designing, following-up and updating the full training process.
Compliance Level: FCo
No Additional Questions

AUDIT QUESTIONNAIRE 2015
P8-C-S1
Coordination of the training. TSO appoints a training coordination manager responsible for training organization: designing, following-up and updating the full training process.

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entso**e**

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

REE has a training coordinator: the Head of the Talent Management Department.

Do you have a mitigation plan to the standard?   **Yes** ☐   **No** ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Who has the role of Training Coordination Manager in your TSO?
Mrs. Ana Abril (Head of Talent Management Dpt.)

List of evidence, comments:

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo
Explanation for the suggested compliance level:
Ana Abril is the training coordination manager appointed by REE since January 2013. She is the head of the talent management department, department which, in collaboration with the control centre representatives, is responsible for developing training programs.
An organizational company chart (intranet) and a job description ("*Manual de Funciones"*) for the training coordination manager were provided as evidence to the Audit Team.

4.10 OH STANDARD P8-C-S2 ORGANIZATION

SELF-ASSESSMENT QUESTIONNAIRE 2014

P8-C-S2
Organization. The training coordination manager determines appropriate procedures for the training organization. These procedures shall cover: - a description of the dispatchers required qualifications (knowledge and skills); - a reference list of topics for training programs linked to the dispatchers required qualification; - the processes for the initial and continuous programs including scripts/documents; of the theoretical sessions, time-schedules, supervision, tools, support for trainees, evaluation/validation and continuous improvement of the programs; - the process of dispatchers accreditation; - trainers selection and training of trainers.
Compliance Level: FCo

Additional Questions	
Do your procedures for training include a description of the dispatchers required qualifications?	Yes
Do your procedures for training include a reference list of topics for training programs linked to the dispatchers required qualification?	Yes
Do your procedures for training include the processes for the initial and continuous programs including scripts/documents; of the theoretical sessions, time-schedules, supervision, tools, support for trainees, evaluation/validation and continuous improvement of the programs?	Yes
Do your procedures for training include the process of dispatchers accreditation?	Yes
Do your procedures for training include trainer selection and training of trainers?	Yes

entsoe

AUDIT QUESTIONNAIRE 2015

P8-C-S2

Organization. The training coordination manager determines appropriate procedures for the training organization. These procedures shall cover: - a description of the dispatchers required qualifications (knowledge and skills); - a reference list of topics for training programs linked to the dispatchers required qualification; - the processes for the initial and continuous programs including scripts/documents; of the theoretical sessions, time-schedules, supervision, tools, support for trainees, evaluation/validation and continuous improvement of the programs; - the process of dispatchers accreditation; - trainers selection and training of trainers.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

REE internal procedures describe all these matters. There are a set of documents describing all the terms referenced here: different operator positions and their corresponding responsibilities, required qualifications and skills. Documents called EOP-XX (where XX 01 to 11) describe all processes and address all these matters.

Do you have a mitigation plan to the standard?   **Yes** ☐   **No** ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Do your procedures for training include a description of the dispatchers required qualifications?	**Yes** ☒ **No** ☐
Do your procedures for training include a reference list of topics for training programs linked to the dispatchers required qualification?	**Yes** ☒ **No** ☐
Do your procedures for training include the processes for the initial and continuous programs including scripts/documents; of the theoretical sessions, time-schedules, supervision, tools, support for trainees, evaluation/validation and continuous improvement of the programs?	**Yes** ☒ **No** ☐
Do your procedures for training include the process of dispatchers accreditation?	**Yes** ☒ **No** ☐
Do your procedures for training include trainer selection and training of trainers?	**Yes** ☒ **No** ☐

List of evidence, comments:

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entso^e

Internal procedure IP003 about operators qualifications. Internal documents EOP-XX can be shown (in Spanish) to demonstrate the FCo.

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo
Explanation for the suggested compliance level:

Training Program
See evidence in explanation from P8-A-R1, P8-A-R2, P8-A-R3 for the topic training programs.

Job description/qualifications
The description of dispatchers´ required qualifications were shown to the Audit Team ("*Descripción del puesto de trabajo -Jefe de turno").*

A general description of required qualifications was provided to the Audit Team and is available in the REE intranet site for each professional category (G1, G2, G3, G4).

("IPOO3 Instrucciones Técnicas 13/07/11") shows the specific training for each position.

("Calificaciones operadores CECOEL-CECORE") contains the results and results from the Simulator OTS Exams (evidence for 2015).

Evaluation/Accreditation

The document *("Evaluación de acciones formativas"*), which describes the process of the training evaluation and improvement, was presented to the Audit Team.
First accreditation is provided by REE after a collaboration with Pontifical University of Comillas upon completing the initial training program.
Juan Bola is the manager who receives the results of the candidate evaluation
Final Report Global evaluation describing the behaviour of the candidates was shown as evidence.

Trainer selection
The document ("*Descripción de puesto de trabajo"*) shows the job description for the trainers which shows the job description for the trainer position. REE presented that 5% of REE employees cooperate with HR for training purposes.

European Network of
Transmission System Operators
for Electricity

entsoe

4.11 OH STANDARD P3-A3-S4.2.3 EVALUATION

SELF-ASSESSMENT QUESTIONNAIRE 2014
P8-C-S3
Evaluation. The initial program has to be completed by an evaluation in which the knowledge and capabilities of a candidate to perform a dispatcher job are tested. This evaluation is performed by the trainers; a relevant document is forwarded to the manager of the candidate.
Compliance Level: FCo

Additional Questions	
Do you complete the initial program with a test of the knowledge of dispatches candidates?	Yes
Do the trainers issue a document containing the results of the evaluation to the manager of the candidate?	Yes

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

AUDIT QUESTIONNAIRE 2015

P8-C-S3

Evaluation. The initial program has to be completed by an evaluation in which the knowledge and capabilities of a candidate to perform a dispatcher job are tested. This evaluation is performed by the trainers; a relevant document is forwarded to the manager of the candidate.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

As the Initial Training has a "continuous evaluation" of every subject/matter including simulator sessions and O.J.T. on the Shift. REE does a final evaluation as an average of all the partial evaluations and also the personal opinions of tutors about each candidate. With all these information the responsible of the Initial Training program elaborates a ranking of candidates that is proposed to Operation Manager as a guide for the selection process.

Do you have a mitigation plan to the standard?   Yes ☐   No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions   How do you

Do you complete the initial program with a test of the knowledge of dispatches candidates?   **Yes** ☒   No ☐

Do the trainers issue a document containing the results of the evaluation to the manager of the candidate?   **Yes** ☒   No ☐

List of evidence, comments:

REE can show the documents with the different exams (written in paper) done during the whole training program, the results of the exams sent by university (ICAI). The reports about behaviour, team work, integration and other issues reported by the tutors.

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
Fco

Explanation for the suggested compliance level:
The document *("Evaluación de acciones formativas")*, which describes the process of the training evaluation and improvement, was presented to the Audit Team.

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

First accreditation is provided by REE after a collaboration with Pontifical University of Comillas upon completing the initial training program.
Juan Bola is the manager who receives the results of the candidate evaluation
Final Report Global evaluation describing the behaviour of the candidates is shown as evidence

4.12 OH STANDARD P8-C-S4 FIRST ACCREDITATION

SELF-ASSESSMENT QUESTIONNAIRE 2014

P8-C-S4

First accreditation. The TSO has to deliver a first accreditation to the dispatcher candidate that authorizes him to perform his job in the control room. The first accreditation is attributed according to defined criteria for a duration decided by the TSO as in below-mentioned guidelines.

Compliance Level: FCo

Additional Questions

Do you deliver a first accreditation to your dispatcher?	Yes
Do you have criteria for accreditation of dispatcher candidate?	Yes

AUDIT QUESTIONNAIRE 2015

P8-C-S4

First accreditation. The TSO has to deliver a first accreditation to the dispatcher candidate that authorizes him to perform his job in the control room. The first accreditation is attributed according to defined criteria for a duration decided by the TSO as in below-mentioned guidelines.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

Those candidates that successfully finish the Initial Training Program receive a "Certificate" from the Universidad Pontificia de Comillas (ICAI) jointly with REE. REE recognizes this Certificate as a certification to work as Dispatcher. Also other Spanish utilities (ENDESA, IBERDROLA, CEPSA, GAS-NATURAL) hire candidates from our Initial Training program with this certification.

Do you have a mitigation plan to the standard?   **Yes** ☐   **No** ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

Do you deliver a first accreditation to your dispatcher?	**Yes** ⊠	**No** ☐
Do you have criteria for accreditation of dispatcher candidate?	**Yes** ⊠	**No** ☐

List of evidence, comments:

Since 2004, all REE dispatchers are hired with this certification. Older dispatchers are considered as validated due to their experience.

Accreditation (IP003) renewal is achieved by passing an annual simulation training evaluation. To consider this evaluation as approved the mark has to be over 7/10 average of Simulator evaluation (done by the instructors during the training sessions) plus final written exam at the end of the continuous training week.

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo

Explanation for the suggested compliance level:
For evidence concerning training programs, please see P8-C-S2.
First accreditation is provided by REE after a collaboration with Pontifical University of Comillas upon completing the initial training program.
Juan Bola is the manager who receives the results of the candidate evaluation.

4.13 OH STANDARD P8-C-S5 TRAINERS' SELECTION

SELF-ASSESSMENT QUESTIONNAIRE 2014

P8-C-S5

Trainers' selection. TSOs have to determine the profile of trainers with regards to their respective tasks and responsibilities in the training programs. Trainers are selected internally (experienced dispatchers) or from external bodies.

Compliance Level: FCo

Additional Questions

Have you determined the profile of trainers?	Yes

AUDIT QUESTIONNAIRE 2015

P8-C-S5

Trainers' selection. TSOs have to determine the profile of trainers with regards to their respective tasks and responsibilities in the training programs. Trainers are selected internally (experienced dispatchers) or from external bodies.

Compliance Level: FCo

Concise explanation and list of evidence for declared compliance level:

Trainer profile and selection process is described in document EOP-04.

Do you have a mitigation plan to the standard?   **Yes** ☐   **No** ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Additional Questions

Have you determined the profile of trainers?   **Yes** ☐   **No** ☐

As stated in before, the document EOP-04 deals with this issue. Additionally REE selects the trainers from the best valuated employees and experts in the different matters inside REE to deal with the internal training. For external training always try to get the best training from different sources depending on the subject to train.

List of evidence, comments:

COMPLIANCE AUDIT 2015

Compliance Level suggestion by the audit team:
FCo

Explanation for the suggested compliance level:
The document ("*Descripcion de puesto de trabajo"*) contains the job description for the trainers and was showed as evidence for the job description of the trainer position. REE presented that 5% of REE employees cooperate with HR for training purposes.

European Network of
Transmission System Operators
for Electricity

4.14 OH STANDARD P8-C-S6 TRAINING OF TRAINERS

SELF-ASSESSMENT QUESTIONNAIRE 2014
P8-C-S6
Training of trainers. Depending on education and previous experience, an individual training program is defined for each trainer; it can be provided by internal sessions or by outsourced training sessions.
Compliance Level: FCo
No Additional Questions

AUDIT QUESTIONNAIRE 2015
P8-C-S6
Training of trainers. Depending on education and previous experience, an individual training program is defined for each trainer; it can be provided by internal sessions or by outsourced training sessions.
Compliance Level: FCo
Concise explanation and list of evidence for declared compliance level:
Any new trainer is sent to different training to improve their teaching skills in a course called "Training for Trainers" (40 hours). Last full-time trainer is pending to attend this course. Also partial time trainers but frequently used for training have received course.
Do you have a mitigation plan to the standard? **Yes** ☐ **No** ☐
In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

List of evidence, comments:

COMPLIANCE AUDIT 2015

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

Compliance Level suggestion by the audit team:
FCo
Explanation for the suggested compliance level:
REE offers the course "Training of trainers" to support the trainers. Trainers attend the course depending on their previous education and experience. REE SAP data base showed the course "Training of trainers" as evidence for the Audit Team.

5 FOLLOW-UP TO THE 2012 ONSITE AUDIT

In this chapter all standards that were not fully compliant during the 2012 audit on Policy 5 are listed, a sub chapter per standard. The TSO is requested to fill in the current situation on the standard. This will be discussed during the audit with the audit team and will be part of reporting of the audit team.

5.1 OH STANDARD P5-B-S6.4.1.3 LOAD SHEDDING PLAN – CHECKS

AUDIT QUESTIONNAIRE 2012

P5-B-S6.4.1.3 LOAD SHEDDING PLAN – CHECKS. TSOs organise in common with DSOs (or with other involved parties) the regular checking (at least once a year) of the load shedding plan in order to ensure the predicted load shedding when applied.

Compliance level   FC ☐   SC ☒   NC ☐

Concise explanation and list of evidences for declared compliance level:

REE organises regular meetings with DSOs in order to check the load shedding plan and evaluate if modifications are needed.

Evidences: Agendas and minutes of these meetings, DSOs communications with update information about UFLS relays location and evaluation reports performed by REE.

Do you have a mitigation plan to the standard?   Yes ☐   No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

Do you have the load shedding plan?

Yes ☒   No ☐

List of evidence, comments:

PRS-0-012 List of load-shedding devices in case of under-frecuency (Relación de relés de deslastre de *carga por minima frecuencia).*

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

Do you check the load shedding plan with DSOs at least once a year?

Yes ☒   No ☐

List of evidence, comments:

> REE organises regular meetings with DSOs in order to check the load shedding plan and evaluate if modifications are needed.
>
> Evidences: Agendas and minutes of these meetings, DSOs communications with update information about UFLS relays location and evaluation reports performed by REE.

AUDIT PHASE

COMPLIANCE AUDIT 2012

Compliance Level suggestion by the audit team:
SC

Explanation for the suggested compliance level:
REE has previously updated its load shedding plan annually but, due to the new regulation from 2009 (load reduction service), REE has not issued the official load shedding plan for the last three years. Indeed REE is currently moving to a load reduction scheme which implementation implies the recalibration of load shedding relays and other systems. The main idea behind the new scheme is to integrate small household type of loads as aggregated ones and the load reduction service providers to be fit for load shedding.

Audit Team reviewed annual agenda and minutes of the meetings from the meetings between REE and Spanish DSOs.

Improvement plan with deadline:

REE will organise annually a review of the load shedding scheme. Official load shedding plan will be distributed at least once per year.
Deadline: end 2013

COMPLIANCE AUDIT 2015

REE current process description and improvements made since 2012:

> In 2013, REE performed a review of the load shedding scheme and the official load shedding plan was distributed at the end of the year.
>
> During 2014, no significant variations were produced in Spanish System, and the load shedding plan published in December 2013 kept valid. The regulatory changes in load reduction (interruptibility) service in 2014 didn´t allow knowing the providers of this service for the next year until the last days of December. For this reason, it was needed to delay the review and distribution of the load shedding scheme which is being carried out at present.
>
> (The providers of load reduction service take part in the load shedding scheme).

COMPLIANCE AUDIT REPORT
REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

Comments by the audit team:

The review of the demand disconnection scheme performed by REE in 2014 concluded that there is no need to modify the schemes dated in 12/2013.

5.2 OH STANDARD P5-C-S1.2.1.3 BLACK START CAPABILITIES OF UNITS SHALL BE TESTED REGULARLY ON-SITE AT LEAST ONCE PER THREE YEARS

AUDIT QUESTIONNAIRE 2012

P5-C-S1.2.1.3 BLACK START CAPABILITIES OF UNITS SHALL BE TESTED REGULARLY ON-SITE AT LEAST ONCE PER THREE YEARS

Compliance level   FC ☐   SC ☒   NC ☐

Concise explanation and list of evidences for declared compliance level:

REE declared non-compliance with this standard and established a mitigation plan in January 2011.

According to this mitigation plan, REE started a process for collecting data about black-start capabilities tests from generation companies in order to preserve the security of the synchronously interconnected ENTSO-E SOC RG CE area.

REE has received the information from all the units with black start capability.

Evidences: Information over black start capability tests of all the generation units (sent by generation companies in September 2012).

Do you have a mitigation plan to the standard? Yes ☐   No ☐

In case of an existing Addendum or a Non Compliance Declaration; list of evidence for a mitigation plan, comments:

--

Do you test the black start capabilities of units at least once per three years?

Yes ☒   No ☐

List of evidence, comments:

Evidences: Information over black start capability tests of all the generation units (sent by generation companies in September 2012).

COMPLIANCE AUDIT REPORT

REE 27-28 MAY 2015

European Network of
Transmission System Operators
for Electricity

entsoe

AUDIT PHASE

COMPLIANCE AUDIT 2012

Compliance Level suggestion by the audit team:
SC

Explanation for the suggested compliance level:
REE provided information from the producers on their black start capable units. Although the units were tested within three years from the audit date as from the standard requirement, REE does not have legal mandate to demand black start tests from the producers. The Spanish government has been informed on the issue and REE is involved in discussion with the government to have a more secure way to ensure functionalities tests and availability of the black start capable units.

Improvement plan with deadline:
REE will report Regulatory Authorities the situation about this standard and will propose the inclusion withinits functions to demand black start tests from the producers.
Deadline: end 2013

COMPLIANCE AUDIT 2015

REE current process description and improvements made since 2012:

REE continues receiving periodically information from the producers about the tests in units with black start capability.

Regarding the discussion between REE and Regulatory Authorities about the inclusion of demanding black start tests from the producers within REE functions, new advances haven´t been produced.

Comments by the audit team:

REE receives under request the information about testing black start capabilities from producers. REE provided dates from latest tests from all 6 producers providing black start support. This information proves that units are tested at least every 3 years.

European Network of
Transmission System Operators
for Electricity

6 CONCLUSIONS

The Audit Team audited 14 requirements/standards. The Audit Team found out that REE is fully compliant with all audited standards.

During the onsite audit, the Audit Team had the opportunity of visiting the national control room and training centre, what helped the Audit Team to better understand the organisation and processes within the organisation of REE. Presentation of installed DTS with a black start simulation performed by REE dispatchers and trainers was a significant part of this visit.

REE estimates that their staff needed **85 human hours** for the preparation of the compliance audit.

REE was well prepared for the audit. The documents considered as evidence were available during the audit. Some documents were also available to the audit team in the preparation phase. All these documents were a good basis for proving the compliance level of REE with the audited standards. Requests for additional material were promptly met by REE.

The general impression of the Audit Team is that REE has an excellent practice in dispatchers training. Audit Team also places very high value to registration of all relevant documents in SAP database. This helps REE to manage training programs of all dispatchers from the practical as well as from procedural point of view.

Although, in order to improve the overall training process, 2 recommendations were made by the Audit Team to REE:

1. To update the training procedures (EOP) dated in 2004 (P8-A-R1).
   - General procedures should be updated on regular basis.

2. To perform common training with REN more frequently (P8-B-S1).
   - Fully competence of REE to decide one of recommended action from: P8-B-G3.

In the case of this Compliance Audit, all preconditions for a successful audit were fulfilled and the Audit Team wishes to express its gratitude to the REE staff involved in the Audit and the company management.

European Network of
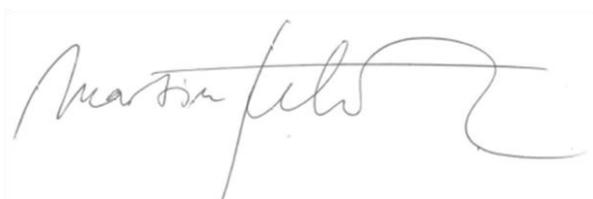Transmission System Operators
for Electricity

7 SIGNATURE PAGE

ENTSO-E Audit Team Members:

Martin Jedinák (Audit Team Leader)

Ana Cigarán (Audit Team Member)

Martin Řeháček (Audit Team Member)

Carlos Castel (Compliance monitoring Advisor)

Date and Place: 2.07.2015, Brussels, Belgium