



3rd Edition Wind Turbine Safety Rules – Key Changes

INTRODUCTION

The purpose of this document is to highlight the key changes between the 2nd and 3rd Edition Wind Turbine Safety Rules.

It is important that the 3rd Edition WTSR, Guidance Document and Supporting Procedures P1 to P6 are thoroughly read and understood. This document highlighting the key changes will not provide a sufficiently detailed understanding of WTSR requirements.

This information was correct at 12-02-09.

GENERAL

Throughout the document work / testing has been replaced by work or testing.

Whenever the term work has been used it is always accompanied by the words “or testing” in all circumstances where it has been considered appropriate to do so. This has been done in an endeavour to make it clear that the WTSR apply equally to work and testing.

Numerous formatting and punctuation changes have been made.

KEY CHANGES

- | | |
|------------|--|
| Page (i) | Second replaced by Third |
| Page (ii) | Second replaced by Third |
| Page (iii) | the words low voltage have been added to the first paragraph of Foreword. |
| Page (vi) | Policy Section has been changed to reflect the fact that Company ‘A’ must make a clear statement of policy as required under Section 2(3) of HSW Act.

Two new bullet points have been added to indicate the Company ‘A’ responsibilities. |
| Page (vii) | Additional wording has been added to Paragraph 2.1 to give clarification that the electrical apparatus is low voltage. |

Additional wording has been added to Paragraph 2.1 to give clarification that the Competent Technician must follow routine operating procedures when carrying out routine work or testing.

Additional wording has been added to Paragraph 2.2 to give clarification that the electrical apparatus is low voltage.

Paragraphs 2.2 and 2.3 – minor wording changes to add clarification.

In addition to some minor wording changes, in Paragraph 2.5 the word “staff” has been deleted and replaced with “persons”.

Page (viii) Paragraph 2.6 – the word “staff” has been deleted and replaced with “individuals”.

Paragraph 2.7 – minor wording changes to add clarification.

Paragraph 2.8 – the words low voltage have been added.

Paragraph 2.9 – the words low voltage have been added.

Paragraph 2.9(i) – the words low voltage have been added.

Paragraph 2.10 – the words low voltage have been added.

Paragraph 2.10(i) – the words “low voltage” and “operational” have been added.

Page (ix) Paragraph 2.10(iv) – the words low voltage have been added and additional requirement added to “confirm that it is in a safe condition for return to service”.

Paragraph 2.10(v) – the words low voltage have been added.

Paragraph 2.11(ii) – the words low voltage have been added.

Paragraph 2.11(iii) – the words low voltage have been added.

Paragraph 2.11(iv) – the words low voltage have been added.

Paragraph 2.11(vii) – minor wording changes to add clarification.

Paragraph 2.12(i) – the words low voltage have been added.

Paragraph 2.12(ii) – the words low voltage have been added.

Page (x) Paragraph 2.13 – Routine Operating Procedures added.

Paragraph 3.1(ii) – minor wording changes to add clarification

Page (xi) Paragraph 3.1(viii) – the words low voltage have been added.

Paragraph 3.1(viii) – reference to paragraph 2.10 added for clarification.

Paragraph 3.1(viii) (a) – significant rewording to better describe the process of ‘Safety Co-ordination’.

Paragraph 3.1(viii) (b) – significant rewording to better describe the process of ‘Making Safe/Restoration of Plant and LV Apparatus’.

Paragraph 3.1(viii) (c) – minor rewording to amplify ‘testing’.

Page 1 General Safety – Competent Technician added to clarify that for work or testing under a Routine Operating Procedure the Competent Technician will have responsibilities for General Safety.

Special Instructions – for clarification the word “should” has been replaced with “shall” and the letters LV added.

Page 2 WTSR A1.1 – the letters LV have been added.

WTSR A1.2 – 2.3 has been replaced with 1.4 and the letters LV have been added.

Page 4 WTSR A3.3 – The requirement to Isolate has been upgraded to “where practicable” instead of “where reasonably practicable”.

WTSR A3.5 – significant rewording to add clarification.

Page 6 WTSR A3.12(vii) – B2.2 replaced by B2.3.

WTSR A3.12(viii) – wording change to clarify that the Authorised Technician must be Appointed for work or testing adjacent to exposed Live LV Apparatus.

Page 7 WTSR A3.13(i), second bullet point - wording change to clarify that the Authorised Technician must be Appointed for work or testing on Live LV Apparatus.

WTSR A3.13(i), eighth bullet point – significant rewording to clarify the requirements, (previous wording did not make sense), and add in a new requirement that any precautions specified in a Selected Person’s Report must be implemented in accordance with a Management Instruction.

Page 8 WTSR A4 – the words “Low Voltage” have been added.

WTSR A4.1 – the letters LV have been added.

WTSR A6 – the words “Low Voltage” have been added.

WTSR A6.1 – the letters LV have been added.

WTSR A7 – the words “Low Voltage” have been added.

WTSR A7.1 – the letters LV have been added.

WTSR A7.2 – the letters LV have been added.

WTSR A7.3 – the letters LV have been added.

WTSR A7.6 – the letters LV have been added.

WTSR A7.7 – the letters LV have been added.

Page 9 WTSR A7.6 – the word “nominated” has been deleted and replaced by “Appointed”, (required because the WTSR Steering Group did not like the use of the term ‘Nominated’ and subsequently agreed that ‘Appointed’ was less confusing).

Page 10 WTSR B1.2 – the letters LV have been added.

WTSR B2.1.1 – minor wording changes, the letters LV have been added.

WTSR B2.1.2 – original paragraph deleted, (now included as WTSR B2.2.4), it was felt more logical that this paragraph was applicable to Implementation not Preparation.

WTSR B2.1.2 – the requirements to implement any precautions specified on a Selected Person’s Report must now be implemented in accordance with a Management Instruction.

WTSR B2.1.4 – original paragraph deleted, (now included as WTSR B2.2.8), it was felt more logical that this paragraph was applicable to Implementation not Preparation.

Page 11 WTSR B2.2 – original Section, “Transfer”, deleted and replaced by “Implementation” because this seemed to be more logical.

WTSR B2.2.1 – was originally WTSR B3.1.

WTSR B2.2.2 – new requirement specified to ensure that the Authorised Technician does actually have a copy of the AWP in his/her possession before starting work or testing.

WTSR B2.2.3 – new requirement to ensure that Transfer Of Control takes place before the Authorised Technician can start work or testing.

WTSR B2.2.4 – this requirement was originally WTSR B2.1.2.

WTSR B2.2.5 – this requirement was originally WTSR B3.2.

WTSR B2.2.6 – this requirement was originally WTSR B3.3.

WTSR B2.2.7 – this requirement was originally WTSR B3.4.

WTSR B2.2.8 – this requirement was originally WTSR B2.1.4.

Page 12 WTSR B2.3 – original Section, “Clearance and Cancellation”, deleted and replaced by “Transfer” because this seemed to be more logical.

WTSR B2.3.5 – the words “Part 1 of the Transfer Record” added for further clarification.

WTSR B2.3.5 – the numbering references to other WTSR has been changed in the final sentence.

WTSR 2.3.6 – the letters LV have been added.

Page 13 WTSR B2.4 – has now become Clearance and Cancellation.

WTSR B2.4.1 – this requirement was originally WTSR B2.3.1.

WTSR B2.4.1 – paragraph reworded and a requirement added for the Authorised Technician to certify that the Wind Turbine Generator is in a safe condition to be returned to service when completing the Clearance Section on the AWP, (WTSR B2.4.1(iv).

WTSR B2.4.2 – this requirement was originally WTSR B2.3.2 but the original requirement has been split to form a new WTSR B2.4.2 covering just Cancellation and a new WTSR B2.4.3 to cover just Transfer of Control.

WTSR B2.4.2 – some minor wording changes to add clarification plus a requirement for the Authorised Technician to confirm that it is safe to remove all remaining Points of Isolation has been added to Cancellation.

WTSR B2.4.3 – new requirement formed because the original paragraph

WTSR B2.3.2, (now WTSR B2.4.2), has been split to add clarification and differentiate between Cancellation and Transfer Of Control, (requirement requires Transfer Of Control to take place immediately following Cancellation when the WTG is returned to its normal operational condition).

WTSR B2.4.4 – this requirement was originally WTSR B2.3.3.

WTSR B3 – new requirements to cover Routine Operating Procedures.

WTSR B3.1 – new requirement to ensure that Routine Operating Procedures are only used with agreement of Company ‘A’.

WTSR B3.2 – new requirement to ensure an Authorising Engineer agrees to the use of a Routine Operating Procedure.

WTSR B3.3 – new requirement to ensure that Company ‘A’ specifies the pro-forma for a Routine Operating Procedure in a Management Instruction.

	WTSR B3.4 – new requirement to ensure that an Operational Controller consents to the use of the Routine Operating Procedure.
Page 16	AWP pro-forma – new wording “1.0 Work Details” added as a heading.
	AWP pro-forma – additional word “(Release)” added to the heading of Section 2.
Page 17	AWP pro-forma – Clearance Section has been completely reworded to clarify the responsibility of the Authorised Technician.
	AWP pro-forma – step 4.1 has some additional wording added to ensure that the Authorised Technician certifies that it is safe to remove all remaining Points of Isolation.
	AWP pro-forma – additional word “(Return)” added to the heading of Section 5.
	AWP pro-forma – step 5.1 has been completely reworded to clarify the responsibility of the Authorising Engineer.
	AWP pro-forma – the word “Section” has been deleted from the heading in Section 6 and replaced with “Part” to ensure consistency with the text of the WTSR.
Page 18	WTSR C1.1 – minor wording change to aid clarification.
	WTSR C1.4(i) – significant rewording to better describe the process of ‘Safety Co-ordination’.
	WTSR C1.4(ii) – significant rewording to better describe the process of ‘Making Safe/Restoration of Plant and LV Apparatus’.
	WTSR C1.4(iii) – minor rewording to amplify ‘testing’.
Page 19	WTSR C2.1 – minor wording change.
	WTSR C2.1.3(i) – wording added to clarify that the requirements to implement any precautions specified on a Selected Person’s Report must now be implemented in accordance with a Management Instruction.
	WTSR C2.1.3(ii) – wording added to clarify that the requirements to implement any precautions specified on a Selected Person’s Report must now be implemented in accordance with a Management Instruction.
	WTSR C2.2(i) – minor wording change to aid clarification.
	WTSR C2.2(ii) – minor wording change to aid clarification.
Page 20	WTSR C2.2(iii) – minor wording change to aid clarification.

WTSR C2.2(iv) – minor wording change to aid clarification, original paragraph subdivided.

WTSR C2.2(v) – subdivision of the original WTSR C2.2(iv), minor wording change to aid clarification.

WTSR C2.2(vi) – this requirement was originally WTSR B2.2(v), minor wording change to aid clarification.

WTSR C2.3 – significant wording change to aid clarification and combine the original paragraphs WTSR 2.3, WTSR C2.3.1 and WTSR C2.3.1(i) but also to add a requirement for Company 'A' to specify in a Management Instruction how the agreement to release Plant / LV Apparatus for work or testing actually takes place.

WTSR C2.3(i) – this requirement was originally WTSR B2.3.1(ii).

WTSR C2.3(ii) – new requirement to confirm that the Authorised Technician must follow all requirements stated on the AWP to achieve Safety From The System.

WTSR C2.3(iii) – this requirement was originally WTSR B2.3.1(iii).

WTSR C2.3(iv) – new requirement for Authorised Technician to set the Working Party to work.

Page 21 WTSR C2.4(i) – wording change to delete “written procedure” and replace with “Management Instruction” to aid clarification.

WTSR C2.4(iii) – the letters LV have been added.

WTSR C2.5 – this requirement was originally WTSR C2.6.

Page 22 WTSR C2.5(v) – original requirement under WTSR C2.6(v) has been subdivided, minor wording changes to aid clarification.

WTSR C2.5(vi) – new requirement formed from part of original WTSR C2.6(v), minor wording changes to aid clarification.

WTSR C2.6 – this requirement was originally WTSR C2.7, minor wording changes to aid clarification.

WTSR C2.7 – this requirement was originally WTSR C2.8.

WTSR C2.7(i) – this requirement was originally WTSR C2.8(ii).

WTSR C2.7(ii) – this requirement was originally WTSR C2.8(i).

WTSR C2.7(iii) – this requirement was originally WTSR C2.8(iii).

WTSR C2.7(iv) – this requirement was originally WTSR C2.8(iv).

WTSR C2.7(v) – this requirement was originally WTSR C2.8(v).

WTSR C2.8 – this requirement was originally WTSR C2.9.

WTSR C2.8(i) – this requirement was originally WTSR C2.9(i).

WTSR C2.8(ii) – this requirement was originally WTSR C2.9(ii).

WTSR C2.8(iii) – this requirement was originally WTSR C2.9(iii).

Page 23 WTSR C2.8(iv) – this requirement was originally WTSR C2.9(iii), original numbering was incorrect.

WTSR C2.9 – this requirement was originally WTSR C2.5.

WTSR C2.10(iv) – new requirement added to ensure the Authorised Technician confirms that it is safe to remove all of the remaining Points of Isolation when Cancelling an AWP.

WTSR C3.1 – minor wording change.

WTSR C3.1.1 – minor wording changes to aid clarification.

Page 24 WTSR C3.1.2(ii) – wording change to clarify that the requirements to implement any precautions specified on a Selected Person's Report must now be implemented in accordance with a Management Instruction.

WTSR C3.1.2(iv) – minor wording changes to aid clarification.

WTSR C3.1.2(vi) – minor wording changes to aid clarification.

WTSR C3.2 – new requirement for the Authorising Engineer to agree that work or testing can be carried out under a Routine Operating Procedure.

WTSR C4 – new requirements included for Competent Technician.

WTSR C4.1 – new requirement outlining the responsibilities of a Competent Technician.

WTSR C4.1.1 – new requirement confirming that Competent Technicians must comply with the WTSR when working under a Routine Operating Procedure.

WTSR C4.1.2 – new requirement specifying that Competent Technicians must use safe methods of work, safe means of access and Personal Protective Equipment.

WTSR C4.1.3 – new requirement to confirm that the Competent Technician must only use Routine Operating Procedures with the agreement of Company 'A'.

	WTSR C4.1.3 – new requirement requiring the Competent Technician to follow any safety precautions stated on the Routine Operating Procedure.
Page 25	<p>WTSR C4.2 – new requirement outlining the requirements for the Competent Technician to obtain consent from the Operational Controller for work or testing under a Routine Operating Procedure, (further details covered in WTSR C4.2(i) to WTSR C4.2(v)</p> <p>WTSR C4.3 – new requirement confirming that the Competent Technician must establish and maintain General safety for work or testing under a Routine Operating Procedure.</p>
Page 26	<p>WTSR C4.4 – new requirement confirming the requirement for a Competent Technician to complete all safety precautions stated on the Routine Operating Procedure before allowing work or testing to start.</p> <p>WTSR C4.5 – new requirement confirming that the Competent Technician must always give Personal Supervision to work or testing under a Routine Operating Procedure.</p> <p>WTSR C4.6 – new requirement for Competent Technicians to manage situations where unexpected hazards arise during work or testing under a Routine Operating Procedure.</p> <p>WTSR C4.7 – new requirement to ensure the Competent Technician leaves the working area in a safe condition on completion of work or testing under a Routine Operating Procedure.</p> <p>WTSR C5 – this requirement was originally WTSR C4.</p> <p>WTSR C5.1 – this requirement was originally WTSR C4.1, some minor wording changes to aid clarification.</p> <p>WTSR C5.1 – a cross reference to the Transfer Of Control requirements contained in WTSR C2.2 have been added.</p> <p>WTSR C5.2 – new requirement confirming the responsibility of the Operational Controller to give “consent” to work or testing under a Routine Operating Procedure, (cross reference to WTSR C4.2 included).</p> <p>WTSR C6 – this requirement was originally WTSR C5.</p> <p>WTSR C6.1 – this requirement was originally WTSR C5.1.</p>
Page 27	WTSR C6.2 – this requirement was originally WTSR C5.2, the words by an Authorising Engineer have been added to aid clarification.
Page 28	Definition D1 – the letters LV have been added

Definition D2 – the word “Appointed” has been added as a defined term to replace the original definition D17 “Nominated”, (which the RenewableUK (formerly BWEA) Steering Group found confusing).

Definition D3 – this requirement was originally Definition D2.

Definition D3 – (vi) and (vii) have been deleted and replaced with (i) and (ii), original numbering was incorrect.

Definition D3(ii) – the words “Asset Owner” have been deleted and replaced with “Company ‘A’”, it was felt that for approvals under the WTSR to be made by the Asset Owner was incorrect.

Definition D4 – this requirement was originally Definition D3, the letters LV have been added.

Definition D5 – this requirement was originally Definition D4.

Definition D6 – this requirement was originally Definition D5.

Definition D7 – this requirement was originally Definition D6.

Definition D8 – this requirement was originally Definition D7.

Definition D9 – this requirement was originally Definition D8.

Definition D10 – this requirement was originally Definition D9, the letters LV have been added.

Definition D11 – this requirement was originally Definition D10, the letters LV have been added.

Definition D12 – this requirement was originally Definition D11.

Definition D13 – this requirement was originally Definition D12.

Page 29 Definition D14 – this requirement was originally Definition D13.

Definition d14 – the words Company ‘A’ have been added to aid clarification.

Definition D15 – this requirement was originally Definition D14, the letters LV have been added.

Definition D16 – this requirement was originally Definition D15.

Definition D17 – this requirement was originally Definition D16, (the original Definition D17 was “Nominated” and this has been deleted – see Definition D2).

Definition D18 – the term “Operational Control” has been added as a new definition.

Definition D19 – this requirement was originally Definition D18.

Definition D19(i) – some significant wording changes to clarify that an Authorising Engineer must have sufficient technical knowledge and/or experience to enable him to avoid Danger.

Definition D19(i) – the word “nominated” has been deleted and replaced by the word “Appointed”.

Definition D19(ii) – this requirement was originally Definition D18(v).

Definition D19(ii) – some significant wording changes to clarify that an Authorised Technician must have sufficient technical knowledge and/or experience to enable him to avoid Danger.

Definition D19(ii) – the word “nominated” has been deleted and replaced by the word “Appointed”.

Definition D19(ii) – a new requirement has been included to confirm that the Authorised Technician enacts Transfer Of Control as part of his/her responsibilities.

Definition D19(ii) – greater amplification of the Authorised Technician responsibilities for maintaining General Safety for the duration of the work or testing has been added.

Definition D19(ii) – the requirement for the Authorised Technician to participate in the transfer, clearance and cancellation of AWP's has been added.

Page 30 Definition D19(iii) – this requirement was originally Definition D18(ii).

Definition D19(iii) – the word “employer” has been deleted and replaced with Company ‘A’ because it was felt to be inappropriate that a third party could make an appointment under the Company ‘A’ WTSR.

Definition D19(iii) – the word “nominated” has been deleted and replaced by the word “Appointed”.

Definition D19(iii) – the letters LV have been added.

Definition D19(iii) – the word “Operating” has been added to confirm that a Competent Technician carries out work or testing under a Routine Operating Procedure.

Definition D19(iv) – this requirement was originally Definition D18(iii).

Definition D19(iv) – the word “nominated” has been deleted and replaced by the word “Appointed”.

Definition D19(iv) – the responsibility for the Operational Control of the Wind Farm has been confirmed.

Definition D19(iv) – the responsibility for the Operational Controller to participate in the Transfer Of Control process has been confirmed.

Definition D19(iv) – the responsibility for the Operational Controller to give consent to work or testing under a Routine Operating Procedure has been confirmed.

Definition D19(iv) – the responsibility for the Operational Controller to control and co-ordinate safety activities necessary to achieve Safety From The System has been confirmed.

Definition D19(v) – this requirement was originally Definition D18(iv).

Definition D19(v)– the word “nominated” has been deleted and replaced by the word “Appointed”.

Definition D20 – this requirement was originally Definition D19, the letters LV have been added.

Definition D21 – this requirement was originally Definition D20, the letters LV have been added.

Definition D22 – the term Routine Operating Procedure has been added as a new Definition.

Definition D23 – this requirement was originally Definition D21, the letters LV have been added.

Definition D24 – this requirement was originally Definition D22.

Definition D25 – this requirement was originally Definition D23.

Page 31 Definition D26 – this requirement was originally Definition D24.

Definition D27 – this requirement was originally Definition D25.

Definition D28 – this requirement was originally Definition D26, the letters LV have been added.

Definition D29 – this requirement was originally Definition D27, the term “Operational Control” has been made bold because it is now a defined term.

Definition D30 – this requirement was originally Definition D28.

Definition D31 – this requirement was originally Definition D29.

Definition D32 – this requirement was originally Definition D30.

