

Instructions

Instructions for the Work Controller and clearance teams when clearing wooded areas near high-voltage lines

Document ID: SDOK-515-57, revision: 6.0

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Verified: 02.01.2024 by Jon Halvor Holtet Approved: 02.01.2024 by Arnfinn Granheim

Planned review by: 02.01.2027

Keywords: El-sikkerhet



Based on the Norwegian document SDOK-515-14

1 Governing policy and legislation

These Instructions for the Work Controller and clearance teams when clearing wooded areas near high-voltage lines are subordinate to <u>policy sikkerhet</u> (Safety Policy). They are a supplement to, and superceded by <u>FSE 2006</u> (Safety regulations related to the maintenance and operation of electrical installations) which is pursuant to the "<u>Lov om tilsyn med elektriske anlegg og elektrisk utstyr</u>" (Act relating to the Inspection of Electrical Installations and Electrical Equipment).

2 Purpose and validity

The purpose of these Instructions is to ensure a high level of electrical safety during work on or in the vicinity of Statnett electrical installations and during their operation, by requiring adequate planning of all activities and the implementation of necessary safety practices to avoid any risk to life, health, or property.

These instructions apply to all forestry clearance affecting transmission lines where Statnett has Installation Manager responsibility.

3 Intended audience

All Statnett and external employees involved in clearing wooded areas near Statnett high-voltage transmission lines.

4 Definitions

Operation Controller: Person appointed to have responsibility for ensuring that all necessary switching operations in high-voltage installations are conducted safely.

Work Controller: Person appointed to have responsibility for the electrical safety at the worksite.

Installation Manager: Person appointed by the owner/manager to carry out and be responsible for the ongoing management and maintenance of electrical installations.

5 Validity and contents

5.1 Before forestry clearance is permitted to commence

- 5.1.1. Before forestry clearance is permitted to commence, Statnett must draw up a plan for the clearance work including details of transmission lines, roads or other objects or structures in the area that could represent a danger in this context. The clearance team must be well acquainted with the plan.
- 5.1.2. Forestry clearance with a Work Controller must be reported to the Office for Outage Planning Coordination following standard routines. The Local Area Manager is responsible for ensuring this is in order. The notification message must include a mobile telephone number to the clearance team.

Instructions for the Work Controller and clearance teams when clearing



5.1.3. Particularly applicable when clearance team are not Statnett employees (external clearance team)

The Local Area Manager must go through the applicable safety instructions with the clearens team who will carry out the forestry clearance. The Local Area Manager is responsible for documenting that this instruction has been given. Cf. appendix to these instructions.

5.2 Forestry clearance without a Work Controller

5.2.1 The clearence team, having received the necessary training and instructions, are permitted to do forestry clearance in certain specified areas without the appointment of a Work Controller. This applies to areas that were specified by the Local Area Manager¹ during the planning phase as being outside the outer limit of the live working zone for existing high-voltage lines. Work of this type does not need to be reported to the Office for Outage Planning Coordination.

5.3 Forestry clearance with a Work Controller

5.3.1 The responsibility of the Work Controller clearing woodland near high-voltage transmission lines:

Authorisation as Work Controller for forestry clearance in accordance with these instructions is limited to clearing wooded areas under high-voltage lines in areas that have been pre-defined by the Local Area Manager².

- 5.3.2 The Work Controller must be appointed in person by the Local Area Manager. The appointment process must follow the applicable in section 4.6 in Electrical safety procedural works: Appointing Work Controller for work on disconnected or in the vicinity of high-voltage installations, and appointing Work Controller for work on or in the vicinity of low-voltage installations. Before work may begin, the Work Controller must send notification in accordance with section 3.3 in Electrical safety procedural works: Use of SMS notification by personnel in high-voltage installations.
- 5.3.3 The Work Controller must inform the clearence team in person of his function as Work Controller and give the clearence team the relevant safety instructions related to the work.
- 5.3.4 The Work Controller must then supervise the work in person. The Work Controller may only take part in the work if this does not, in any way, interfere with his responsibilities as Work Controller.
- 5.3.5 The Work Controller must enforce a high standard of safety during the work, by ensuring that no trees, machinery, or equipment ever comes nearer to the transmission lines than the distances stipulated below. Particular attention must be given to steep terrain and windy conditions.

22 - 420 kV: 5 m

5.3.6 The Work Controller must ensure that work stops if there is any risk of lightning.

¹ The Local Area Manager may appoint a representative. The representative must be an approved Work Controller for transmission line work.

² The Local Area Manager may appoint a representative. The representative must be approved as a Work Controller for transmission line work.

Instructions SDOK-515-57

Instructions for the Work Controller and clearance teams when clearing



- 5.3.7 At the close of the working day, the Work Controller must send notification in accordance with section 3.3 in <u>Electrical safety procedural works</u>: Use of SMS notification by personnel in high-voltage installations.
- 5.3.8 Notification of the completion of the clearance work must be sent in person to the Local Area Manager, and the Work Controller must report the work terminated in accordance with section 4.6 in Electrical safety procedural works: Appointing Work Controller for work on disconnected or in the vicinity of high-voltage installations, and appointing Work Controller for work on or in the vicinity of low- voltage installations.
- 5.3.9 If the Work Controller considers that it is difficult to observe the safety distances stipulated in section 5.3.5, the Local Area Manager³ must be notified. All work in the affected location must be stopped. Under such circumstances, the Local Area Manager⁴ must assess whether work may continue under the conditions of "work in the vicinity of an energised installation" or as "work on, or in the vicinity of, an earthed and short-circuited installation". If so, a new **Work Controller** must be appointed in accordance with Instructions for the high-voltage Work Controller.

5.4 Trees may only be felled in areas that have been allocated for clearance by the Local Area Manager

5.4.1 Trees must be felled in such a way as to ensure there is no risk of a tree coming any closer to the transmission line than the distance stipulated in section 5.3.5.

5.5 Accidents

- 5.5.1 If a tree falls against a transmission line, the tree must not be touched. Everyone must move to a safe distance from the tree and transmission line. All further clearing work must be stopped. The Regional Control Centre must be notified immediately using the registered telephone number. The area must be kept under surveillance until further notice.
- 5.5.2 Notification must include specification of the location in the form of "between mast no..."
- 5.5.3 After the Regional Control Centre has been notified, notification must be sent to the Local Area Manager⁵.
- 5.5.4 If one of the transmission lines breaks and falls to the ground, all persons must move well away from this and any affected trees. The clearance team must check that no other transmission line or telephone line in the area between the masts has been affected by the broken line. Personnel must stay well away from the transmission lines. If a line has fallen down over a road, the area must be guarded. A warning must be issued in accordance with sections 5.5.1-5.5.3.

³ The Local Area Manager may appoint a representative. The representative must be an approved Work Controller for transmission line work.

⁴ The Local Area Manager may appoint a representative. The representative must be an approved Work Controller for transmission line work.

⁵ The deputy must be notified if the Local Area Manager is not available.



6 Abstinence from intoxicants

The person appointed as Work Controller must agree to refrain from consuming alcohol or other intoxicants during an 8-hour period prior to starting work.

7 Confirmation of compliance

Responsibility for checking compliance with instructions lies with the document holder and approving body.

The position of Installation Manager includes authority to draw up and approve work procedures, guidelines and instructions in areas covered by electrical safety in accordance with <u>policy sikkerhet</u> (Safety Policy – Norwegian document only).

8 Enclosures and references

References:

- Policy sikkerhet (Safety Policy Norwegian document only) (SDOK-856-6)
- Instructions for the Operation Controller (SDOK-515-54)
- Instructions for the high-voltage Work Controller (SDOK-515-55)
- <u>Instruks for vernebekledning</u> (Instructions for personal protective equipment -Norwegian document only) (SDOK-587-20)
- Electrical safety procedural works (SDOK-515-73)
- Safety regulations related to the maintenance and operation of electrical installations (FSE 2006) (www.dsb.no)
- <u>Lov om tilsyn med elektriske anlegg og elektrisk utstyr</u> (Act relating to the Inspection of Electrical Installations and Electrical Equipment – only in Norwegian) (www.lovdata.no)

9 Version log

| Valid as of | Revision classification | Description of important changes | |
|-------------|-------------------------------|---------------------------------------------|--|
| | (New/Updated/Vocabulary/None) | | |
| 01.01.2024 | Updated | Changed name of roles: | |
| | | Safety Supervisor – Work Controller | |
| | | Switching Supervisor – Operation Controller | |
| | | Operations Manager – Installation Manager | |



APPENDIX TO INSTRUCTIONS

Appendix to "Instructions for Work Controller and clearance teams when clearing wooded areas near high-voltage lines": Declaration of training and instruction.

Revision 6.0

⁶ For personnel who do not speak Norwegian or English, an equivalent course in another language is acceptable.

Instructions SDOK-515-57

Instructions for the Work Controller and clearance teams when clearing



| Telephone number Regional Control Centre: |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Telephone number Local Area Manager / Deputy:/ |
| Place: Date: |
| Signed: |
| |
| Supplementary declaration for personnel appointed as Work Controller, limited to forestry clearance. |
| I declare that, in addition to the training and instructions above, I have studied the relevant sections of Statnett's <u>Instructions for the high-voltage Work Controller</u> , with particular focus on work in the vicinity of energised installations. |
| Signed: |
| Please e-mail to sikkerhetskort@statnett.no |
| Link to Work Order (one or more): |

Instructions

Instructions for the Work Controller and clearance teams when clearing wooded areas near high-voltage lines

Revision log SDOK-515-57:

| Rev | rision Approved | Approved by | Description |
|-----|-------------------------|------------------|-------------------------------|
| 6.0 | Show changes 02.01.2024 | Arnfinn Granheim | See the version log |
| 5.0 | Show changes 30.12.2022 | Arnfinn Granheim | See the version log |
| 4.0 | Show changes 03.01.2022 | Arnfinn Granheim | Not correct name in the title |
| 3.0 | Show changes 03.01.2022 | Arnfinn Granheim | Not correct name in the title |
| 2.0 | Show changes 03.01.2022 | Arnfinn Granheim | Not correct name in the title |
| 1.0 | Show changes 30.12.2021 | Arnfinn Granheim | Migrated from IFS#3265859 |