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0 CHANGE CONTROL

Edition	Date	Description of the modification
00	08/01/2012	Initial edition.
01	23/04/2013	Add the possibility of using Plant Protection Products in the wind farms. Add the responsibilities flowchart.
02	04/11/2013	Add the possibility that the O&M contract includes periodic vegetation control activities.
03	31/10/2015	Change of title. General revision.

1 OBJECTIVE AND SCOPE

This document defines the process and responsibilities in EDPR PT to control vegetation growth inside substations, in the surroundings of substations, switching station, control buildings, in the verge of access roads and beneath power lines.

This kind of vegetation control operations can include deforestation, pruning, bush clearing or herbicide application and the main goal is to create a protection area to equipment, reducing risk of fire spread or to allow a free and unobstructed circulation in the windfarm roads.

This procedure applies to all the windfarms operated by EDPR-PT, included in the document "Facilities in the EMS Scope".

This procedure does not overlap the procedure EXPR-EU/EMS-SPF00009 "Forest Protection Against Fires", but is complementary to it.

2 REFERENCES

- NP EN ISO 14001:2004 standard.
- EMS Manual.
- EMS-EU/GP-00007 "Operational control, monitoring and measurement".
- EXPR-EU/EMS-SPF-00009-"ForestProtectionAgainstFires"





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3 DEFINITIONS

- Deforestation process of removing trees in a given field.
- Pruning process of removing tree branches
- Bush clearing process of removing bushes in a given field
- Herbicides: chemical products (pesticides) used to eliminate undesirable plants.

4 ABBREVIATIONS

- EDPR PT: EDP Renováveis Portugal.
- EMS: Environmental Management System.
- O&M: Operation and Maintenance.
- RP: Windfarm Manager
- RR: Regional Manager
- R-SGA: EMS manager for Portugal.

5 PROCEDURE

5.1 NEED FOR LAND CLEARING

RP should check, at least, every first four months of each year, if vegetation growth in the surroundings of substation, control building, roads, and inside substations, justify the need to carry out land clearing in any specific area. For that purpose, they should register that need in the "electrical equipment and civil construction inspections report" - hereinafter referred to as "monthly inspection reports". The vegetation control is considered necessary to accomplish these goals: maintain a protection area to electric equipment and maintain a free and unobstructed circulation in the windfarm.

During the first four months, after receiving information from RP, each RR elaborates an intervention program, with the support from the R-SGA, that identifies places and intervention methods (bush clearing, deforestation, pruning or herbicide application) and working schedule. This intervention program should take into account foreseen operations in





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the framework of the EXPR-EU/EMS-SPF-00009 procedure and eventual environmental and property constrains.

The RR will then select and hire companies to execute operations. The Request for Proposal (RFP) should include a technical specification that defines technical rules and constrains to follow in the execution of the vegetation control operations. This specification will be prepared by the R-SGA, with support of the RR.

If deforestation or pruning is needed, the technical specification should define for each species and place, if only pruning is to be made, if entire tree must be cut or if trunk and root must be removed (ex: eucalyptus).

In nature protected areas, or in the case of legally protected species, this kind of operations can only be executed after EDPR obtains the necessary permits from competent authorities.

In the preparation of the technical specification, it must be take into account, the already planned activities in the framework of the EXPR-EU/EMS-SPF-00009 procedure.

5.2 METHODS TO BE USED FOR LAND CLEARING

5.2.1 ALLOWED METHODS

The methods allowed in the vegetation control operations are the following

Method	Application site
Herbicide application	Inside substations and until 3 meters beyond exterior limit of control buildings, substations, switch stations.
Bush clearing	Wherever necessary. Applies only to shrub layer.
Pruning and deforest	Only in places where trees growth threats operation safety (ex: beneath power lines).



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5.2.2 PRUNING AND DEFOREST

Pruning and deforest operations should focus only in trees that put in risk the normal operation of windfarms, namely in situations that they approach power lines.

Pruning and deforest operations should be executed only in places defined in the technical specification and other contract documentation and must follow rules and good practices defined in it.

Pruning operations should only resort to mechanical methods, being prohibited the use of chemical products. Damages in the trees that could harm their health should be avoided. Equipment to use should be adequate and in good condition.

Eucalyptus root removal should be made only if it is clearly stated in contract documentation. This removal should be made using trenchers or similar equipment, but only in the places defined in the technical specification and following the applied rules, including constrains for accessing workplaces with trenchers.

After conclusion of pruning and deforest operations, the wood should be removed from the site and sent to authorized destination. Alternatively, if contract documentation defines it that way, wood can be cut and left in site for landowners.

Pruning and deforest operations should occur out of the critical period with higher risk of fire (typically between July and September). During the critical period piling of wood is only possible if it is safeguarded an area of 50 meters around the deposit with just shallow vegetation.

In the end of the operations, the contractor should make a specific report with the following information:

- Details about the company (Name, TIN, contacts)
- Windfarm name
- Description of activities (methods, tools, sites)
- · Names of technicians and manager.
- Beginning and conclusion dates





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- Equipment used and its characteristics (Brand, model, series number)
- Destination of wood and vegetable waste

This report must be sent to the RP or the RR for approval.

5.2.3 Bush clearing

Bush clearing operations should be executed only in places defined in the technical specification and other contract documentation and must follow rules and good practices defined in it.

Bush clearing operations should only resort to mechanical methods. The use of chemical products, like herbicides in not allowed, and also the execution of controlled fires in not permitted. Bushes can be eliminated with bush cutters, chippers or disc harrows, avoiding the damage in the trunks and roots of trees. The equipment must be in good working condition.

After concluding the operation, the thicker material must be shredded and spread on the soil in small layers, with the rest of the thinner material.

Bush clearing operations should occur out of the critical period with higher risk of fire (typically between July and September). They may inside the critical period, provided that accumulation of vegetable material stays in site for no longer than one week. In these months, the stacking of vegetable material is allowed, only if it is safeguarded an area of 50 meters around the deposit with just shallow vegetation.

In the end of the operations, the contractor should make a specific report with the following information:

- Details about the company (Name, TIN, contacts)
- Windfarm name
- Description of activities (methods, tools, sites)
- Names of technicians and manager.
- Beginning and conclusion dates



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- Equipment used and its characteristics (Brand, model, series number)
- Destination of wood and vegetable waste

This report must be sent to the RP or the RR for approval.

5.2.4 Herbicide application

Inside the substation and until 3 meters around substations, switch stations and control buildings, it is authorized by EDPR the use of herbicides, provided the fulfilment of these requirements:

- The product to be used must be authorized by competent authorities.
- Applicators must possess specific certified training, duly recognized by official authorities.
- The applicator company must be authorized by competent authorities, to execute terrestrial application of herbicides.
- Only hard packages with less than 25 litters can be used.
- Instructions present at the label of the product and at the Safety data sheet, must be strictly enforced.
- Empty packages must be collected and delivered in authorized destination by the applicator company. Equipment cleaning, after herbicide application, must be executed in the applicator company installations.
- Good practices for herbicide application emitted by the produt provider or by competent authorities, must be enforced.

In the end of the operations, the contractor should make a specific report with the following information:

- Details about the company (Name, TIN, contacts)
- Windfarm name
- Description of activities (methods, name of the herbicide used, tools, sites)
- Names of the applicators and identification of training certificate.





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- Beginning and conclusion dates
- Destination empty packaging

This report must be sent to the RP or the RR for approval.

5.2.5 SUPERVISION AND CONTROL

RP should verify the fulfilment of all requirements established in this procedure, with the support of the R-SGA. If any infringement is detected, causes should be identified and rectification should be assured. This information should be transmitted as soon as possible to the R-SGA, which, if necessary, can designate immediate solutions to implement, in order to minimize possible environmental impacts.

RP should confirm if the reports presented by the contractor are correct, request corrections and approve them.

If any infringement is detected, the R-SGA should open non-conformity, and act in accordance to this procedure, determining the necessary corrective or preventive action.

6 RESPONSIBILITIES

EMS Manager:

- Support the RR in preparation of an annual intervention program to control the growth of vegetation.
- Support the RR in the selection and hiring of external companies to perform vegetation control operations that are in the framework of this procedure.
- Determining compliance of external company, herbicide applicators and products.
- Determining immediate solutions, in case it has been detected, during the operations, some misapplication of this procedure, and communicate these solutions to the RR.
- Register non-conformities, when serious or frequent misapplications of this procedure are transmitted, and determine the necessary corrective and preventive actions
- Prepare technical specification to integrate the Request for proposal, with support from the RR.

O&M Regional Manager:



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- Prepare intervention program to control vegetation growth in windfarms, with support of the R-SGA.
- Select and hires company to execute the vegetation control operations, in the framework of this procedure.

Wind Farm Manager:

- Check annually the need for vegetation control operations, and register it in the monthly inspections report.
- Verify fulfilment of the requirements established in this procedure during execution of operations. If an infringement is detected, communicate it as soon as possible to the R-SGA, with the corresponding causes.
- Verify implementation of immediate solutions determined by the R-SGA, to minimize possible environmental impacts caused by misapplications of this procedure.
- Confirm if the reports presented by the contractor are correct, request corrections and approve them.

Contractor:

- During execution, comply with all the rules stated in this procedures, with conditions
 present in the contract documentation, with all legal applicable requirements and with
 all applicable recommendations and best practices.
- Prepare and send a report, in accordance with this procedure, after conclusion of the operations.
- Supply all documentation requested by the RR or the R-SGA, that is necessary, to demonstrate environmental conformance of the company, its employees and equipment, to execute the works.
- In case of infringements to the procedure, implement the immediate solutions to minimize environmental impacts that are required by the RR ou the RP.

7 FORMS

Not applicable.





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8 RESPONSABILITIES FLOWCHART

	Windfarm manager	Regional Manager	EMS Manager (Portugal)	Contractor
NING	Identify needs to control vegetation growth	Prepares intervention program	Supports RR in preparation of the intervention program	
INAJ9		Launch request for proposal and selects EE.	Prepares technical specification. Supports RR in the selection and hiring process.	Supplies all necessary documentation
	Check compliance of environmental requirements. Report infringements.			Execute operations, in accordance with contract documentation
KECUTION	Check and approve contractor reports			Make and send report
(3	Check implementation of corrective actions	Reports corrective actions to the contractor	Determines corrective actions in case of infringements	Implement corrective actions.

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