Prepared	Revised	Validated	Approved
EMS Manager	*EDPR EU EMS Manager*	*Country EMS Management Representative*	*EDPR EU EMS Management Representative*
Name: Laura Lazar & Florentina Fasie	Name: Ángela Toledo	Name: David Talaván	Name: Manuel Fernández
Date: 26/06/2014	Date: 26/05/2014	Date: 26/06/2014	Date: 26/06/2014

Document Type: EXECUTIVE PROCEDURE

renewables

HAZARDOUS WASTE MANAGEMENT PROCEDURE

OPERATIONAL WIND FARMS

Prepared by:	Reviewed by:	Approved by:
EDP Renewables	EDP Renewables	EDP Renewables
Laura Lazar and Florentina Fasie	Inmaculada Somosierra Lopez	David Talavan Luque
Environmental	**Head of O&M**	**Country Manager**
Date: 2013-10-21	Date: 2013-10-21	Date: 2013-10-21

Vestas CEU	Vestas CEU	Vestas CEU
IOSIU GLORIA CRISTINA	DAN CRISTIAN PETRE	CATALINA JOAQUIM LAS
Environmental Responsible	**O&M Responsible**	**Country Manager**
Date: 2013-10-21	Date: 2013-10-21	Date: 2013-10-21

VESTAS COMERCIAL CEU ROMANIA S.R.L. BUCUREȘTI - ROMÂNIA

Table of Contents

1. Scope

The aim of this PROCEDURE is to describe main responsibilities of Beneficiary and Contractors in order to have a proper HW management generated during operation and maintenance works of:

- **Cernavoda, Pestera, Sarichioi, Vutcani, Cobadin, Albesti and Facaeni wind farms.**

2. Definitions and acronyms

- **Waste:** any substance or object belonging to any of the categories figuring in the specific law on waste, which its supplier gets rid of or has the intention or obligation to get rid of.
- **Inert waste:** non hazardous waste that does not suffer any significant physical, chemical or biological transformation.
- **Urban or assimilable waste:** generated in households, shops, offices and services as well as all waste that is not classified as hazardous waste and which given its nature or composition can be assimilated to those produced in the previous spaces or activities. Waste and rubber small constructing works and household repairs.
- **Hazardous waste (HW):** waste figuring in the hazardous waste list within the specific law publishing waste valorisation and disposal operations and the European waste list and its successive updates, as well as the containers and bottles that have contained it.
- **Management:** waste collection, storage, transport, valorisation and disposal including monitoring these activities and monitoring the storage or dumping places after its closing.
- **Collection:** any operation consisting in collecting, sorting, grouping or preparing waste for transport.
- **Storage:** temporary storage of waste prior to valorisation or disposal for under 2 years or 6 months if it is HW, unless shorter times are established in regulations.
- **Valorisation:** any procedure that allows for exploiting resources contained in the waste without causing any risk to human health and without using any methods that could be damaging to the environment.
- **Disposal:** any procedure directed at either waste dumping or totally or partially destroying it without causing a health risk and without using methods that could be damaging to the environment.
- **Labelling:** Containers will have a clear, legible and indelible label stuck on it with a minimum size of 10*10 cm, at least in Romanian. It will contain: Name of waste, waste code, work centre name, address and telephone number, waste owner, packing date, nature of the hazard with a pictogram.
- **Cleaning Point:** special area inside EDPR substation designed for temporary storage of generated waste during operation.

3. Areas Involved

The areas and people involved in this activity process are:

Environment Manager: Manager of EDP Renewables' Environment Department responsible for controlling and monitoring Environmental Monitoring.

O&M Wind Farm Managers: Wind Farm Managers of **Cernavoda, Pestera, Sarichioi, Vutcani, Cobadin, Albesti and Facaeni WFs.**

Contractor: Works' contract successful tendered (**Vestas** for wind turbines operation and maintenance activities).

Wind Farm:	Responsible (O&M WF Manager):	Contact details
Pestera	Alexandru Liviu Pop	Tel: +40724500232 Email: liviu.pop@edpr.com
Cernavoda	Gheorghe Pascu	Tel: +40733102734 Email: gheorghe.pascu@edpr.com
Sarichioi	Catalin Onceanu	Tel: +40724500242 Email: catalin.onceanu@edpr.com
Vutcani & Albesti	Dumitru Vasile	Tel: +40725681177 Email: dumitru.vasile@edpr.com
Cobadin	Doru Hamuraru	Tel: +40725105330 Email: doru.hamuraru@edpr.com
Facaeni	Ionut Stroia	Tel: +407256681121 Email: ionut.stroia@edpr.com
	Head of O&M	
EDPR Wind Farms	Inmaculada Somosierra Lopez	Tel: +400731037380 Email: inmaculada.somosierra@edpr.com
	Environmental Specialist	
EDPR Wind Farms	Florentina Fasie	Tel: +40735519394 Email: florentina.fasie@edpr.com
EDPR Wind Farms	Laura Lazar	Tel: +40725929884 E-mail: lauralazar@edpr.com

Table 1. Contact data EDPR

4. Legislative & regulatory

Applicable environmental legislation on waste matters is detailed below:

- Law no. 360/2003 on the regime of dangerous chemical substances and preparations, as amended and supplemented by law no. 263/2005 and law no. 254/2011 – DC 67/548/EEC; DC 88/379/EEC, R 793/93;
- Law 426/2001 for the approval of Government Emergency Ordinance no. 78/2000 – on waste regime – DC 75/422 CEE (amended by DC 91/156/CEE); DC 96/59/CE; DPEC 2000/76 CE; DPEC 94/62/CE;

- Government Resolution no. 1408/2008 regarding classification, packaging and labelling of hazardous substances.
- Law 211/2011 regarding waste regime;
- **Government resolution no. 856/16.08.2002 on the waste management accounts in accordance with the European Waste Catalogue – Decision no. 2001/119 on waste list.**
- Government Resolution no. 621/2005 on packaging management, as amended and supplemented by Resolution no. 1872/2006 and Resolution no. 247/2011-- DC 94/62/CE;
- M.M.G.A. Order no. 794/2012 on the reporting procedure for data referring to packaging and waste packaging;
- **Government Resolution no. 235/2007 on the management of used oils – DC 75/439/CEE (as amended by DC 87/101/CEE and DC 91/692/CEE);**
- **Governmental Decision no. 1061/2008 regarding transport of hazardous and non-hazardous waste on Romania`s territory.**
- Government Resolution no. 1132/2008 on the regime of batteries and storage batteries containing dangerous substances, as amended and supplemented on by Resolution no.1079/2011 – DC 91/157/CEE and DC 93/86/CE;

5. Collection Points in EDPR substations

In general, wind farms in operation generate the following HW at a higher rate:

- Used oils;
- Contaminated absorbents
- Contaminated packaging (metal and plastic)
- Used oil filters

Each substation is endowed with a Collection Point specially designed for temporary storage of waste generated during Operation. **EDPR O&M Personnel will be in charge with hiring a specialised company for the management of collected waste in the Collection Point, authorised according with Romanian legislation in force.**

Cleaning Point

EDPR has specific areas, designed and bounded as HW storage to avoid potential transfer of contamination to other environments. This Cleaning Point must be protected from the sun, sheltered from meteorological conditions and must have spillage retention system. The Cleaning Point is endowed with absorbent materials in order to correct accidental spillages, as well as an extinguisher (mandatory for closed areas) to control possible risks derived from stored flammable materials.

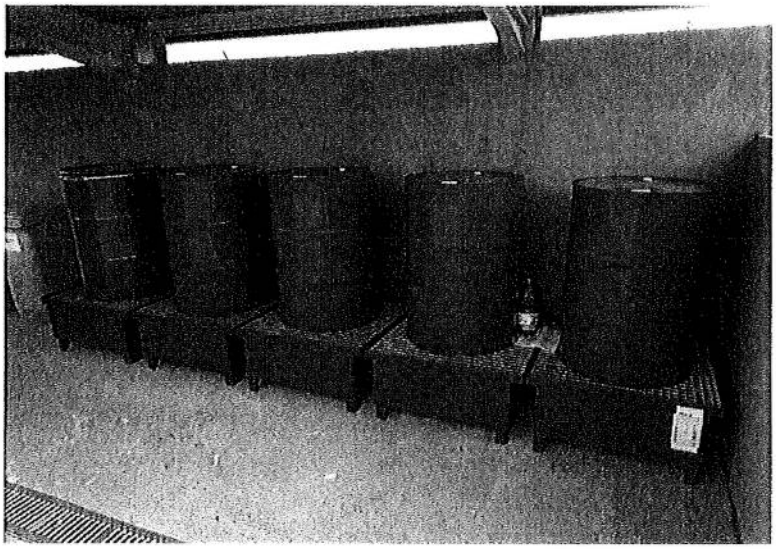

Fig.1. Example of Cleaning Point

Leakages or spills:

Leaks/spillages when handling hazardous waste or in storage work, should be corrected immediately and should be notified to the Environmental Monitoring Manager appointed by EDPR and **EDPR O&M WF Manager**.

When spilled waste comes in contact with the ground, the contaminated fraction should be removed as quickly as possible and managed as hazardous waste. Absorbent material will be used.

Contaminated absorbent material will be deposited in the adequate container from the Cleaning Point.

Transport of hazardous waste:

It should be transported to the storage place **in vehicles duly authorized** by the competent authority and with appropriate authorisation as a hazardous waste haulage contractor.

6. EDPR – VESTAS HW Management Procedure

a) **EDPR** has endowed all Collection Points with specific containers for hazardous waste collection, placed on retention boxes (please see fig. 1 example)
b) **EDPR** has closed for each Operational Wind Farm: HW collection contracts with specialized companies.

c) The total temporary storage capacity of HW in each Collection Point does not represent a problem. **EDPR** will be in charge of calling the Specialized Collection company when is necessary (usually when 70-80% capacity of the HW containers in the collection point is reached). EDPR will call the specialized companies every time is needed: from one to several times per months depending on the quantity that Vestas is bringing.

d) **VESTAS** will provide a full list of generated HW from wind turbines maintenance activities. **The list will contain the HW type and LER codification** according with the legislation in force HG 856/2002. This list will be available in each collection point and used every time HW is disposed in the collection point (please see Annex 1).

e) **VESTAS** personnel will call in advance with at least 1 day the Wind Farm Managers announcing that they are bringing HW in the Collection Point (please see table 1).

Vestas has the obligation to **segregate the hazardous waste on types and separately dispose it.** No input is required here from EDPR.
Each time during a month that Vestas is bringing HW in the Collection Point, Vestas personnel has the obligation of giving information regarding:

- **HW types and codes disposed** (list from Annex 1 will be used);
- **Quantity estimation:**
  - **for used oils** the quantity estimation will be made per volume, using the metallic containers available in the Collection Point,
  - **for the solid waste** EDPR will endow each collection point with a weight;
- **The above information will be noted in a Hand-Over Document (proces-verbal) that will be signed/accepted by EDPR O&M Manager** (please see Annex 2). This is very important because will allow EDPR to keep an evidence of HW temporary stored by Vestas and to have a control key for waste segregation (in order avoid past situations).
  By email to EDPR, Vestas can announce the intention to bring waste in the Cleaning Points, but the signing of a Hand-Over Document remains available.

f) The specialized collection company that is contracted by EDPR will be in charge of completing all necessary formulas for **HW transport and storage (HG 1061/2008; HG 235/2007)**.

g) Annual reporting to EPAs as stated in HG 856/2002 will be done by EDPR.

The HW (for example used oils) collected by Vestas personnel will be discharged in the special containers from the EDPR Collection Point in safety conditions, with appropriate devices in order to prevent leakages. In case accidental pollutions occurs, proper intervention materials will be used, ex: biodegradable materials: Spillsorb.

The Contractor shall bear all costs and expenses and shall be solely liable for any response, removal, investigation, cleanup or other remedial action required by any Applicable Law related to any hazardous substances furnished under, or brought, created, released, exacerbated, used, or handled on, near, or from the wind turbines to the Collection Point.

Annex 1: Waste LER Codes & Description

LER CODES	Legal description of LER codes- RO	Legal description of LER codes- ENG
20 01 35*	Echipamente electrice si electronice casate, altele decat cele specificate la 20 01 21 si 20 01 23 cu continut de componenti periculosi	Discarded electrical and electronic equipment other than those mentioned at 20 01 21 and 20 01 23 containing hazardous components
15 01 10*	Ambalaje care contin reziduuri sau sunt contaminate cu substante periculoase	Packaging containing residues or contaminated by dangerous substances
15 01 11*	Ambalaje metalice care contin o matrita poroasa formata din materiale periculoase (de ex. Azbest), inclusiv containere goale pentru stocarea sub presiune	Metallic packaging containing a dangerous solid porous matrix (for ex. Asbestos), including empty pressure storage
15 02 02*	absorbanti, materiale filtrante (inclusiv filtre de ulei fara alta specificatie), materiale de lustruire, imbracaminte de protectie contaminata cu substante periculoase	Absorbents, filter materials (including oil filters with no other specified), materials polishing, protective clothing contaminated by dangerous substances
16 01 07*	Filtre de ulei	Oil filter
08 01 11*	Deseuri de vopsele si lacuri cu continut de solventi organici sau alte substante periculoase	Waste paint and varnish containing organic solvents or other dangerous substances
16 06 01*	Baterii cu plumb	Lead batteries
16 02 13*	Echipamente casate cu continut de componente periculoase, altele decat cele specificate de la 16 02 09 la 16 02 12	Discarded equipment containing hazardous components other than those specified at 16 02 09 and 16 02 12
13 02 05*	Uleiuri minerale neclorurate de motor, de transmisie si de ungere	Non-chlorinated mineral oil from engine, gearing and lubricating
13 03 07*	uleiuri minerale neclorinate izolante şi de transmitere a căldurii	Non-chlorinated mineral oil from heat transmission
13 01 10*	uleiuri minerale hidraulice neclorinate	Mineral oil – hydraulic system

Annex 2: Hand-Over Document HW

Wind Farm: .....**Wind Farm**

Date: .....

PV predare Deseuri Periculoase / Hand-Over Document HW

Nr. Crt.	Type of waste	Provenience	LER code	Estimated quantity	Observations
1					
2					
3					
.....					

Provider:

Vestas Personnel

Name:.....

Signature:.....

EDPR Wind Farm Manager

Name.....

Acceptance signature:.....