



South Kent Spill Prevention and Response Plan (SPAR)

Report No: 20199-1

Issue No: 01

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Revision History

Issue	Date	Nature And Location Of Change
01	02/08/2013	Spill Prevention and Response Plan created for South Kent Wind Project.

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SOUTH KENT WIND PROJECT SPILL PREVENTION AND RESPONSE PLAN

1.0 INTRODUCTION

The following plan applies to the South Kent Wind Farm Project (“the Project”) located in township of Chatham-Kent. The Project consists of the construction of plant infrastructure for 124 Siemens turbines including 72 SWT 2.221-101, 51 SWT 2.16-101, and 1 1.903-101 wind turbines. incorporated in the project will be , 2 substations, an interconnect, access roads, 200 km of buried collections lines and 34 km of overhead transmission lines, as well as operations and maintenance building.

2.0 RESPONSE PLAN

This plan outlines the general procedures to be followed in the event of a release or spill of a hazardous or regulated material or waste.

A spill is classified as the discharge of hazardous or regulated substances into the environment. Potential hazards created by the spill will vary for humans, vegetation, water resources, fish and wildlife and is dependent on several factors, including nature of the material, the amount spilled, the location of the release and the season/weather conditions.

2.1 ON-SITE PERSON IN CHARGE

Project Site Office:	South Kent	(519) 689-4553
Project Environmental Advisor:	Viola Dupuis-Redshaw:	(416) 455-2754
Project Manager:	Liam Duffy:	(905) 515-0471
Project Safety Inspector:	Chris Dupon	(647) 262-1695

2.2 DESCRIPTION OF HAZARDS

Wind farm construction or operation activities do not involve the use of major quantities of hazardous or regulated materials, nor do they produce large quantities of hazardous or regulated waste. Of the limited amount of hazardous or regulated materials used onsite, the proper management of their handling and storage will be assured to mitigate any potential effects to on-site personnel or the environment.

Although the risk of a significant release is low, this plan provides best management practices and guidelines to further reduce the risk from a release.

The most common types of spills will be are small and easily contained. Spills of fuel, lubricants, or pesticides during operations can occur as a result of fuelling, hydraulic hose breaks, mechanical damage or vandalism.

2.3 DESCRIPTION OF MATERIALS

The main categories of hazardous/regulated materials used will be:

- Wind farm construction materials, including concrete admixture chemicals such as surface active agents, plasticizers and form release oil (mineral);
- Equipment coolants and maintenance chemicals including fuels and lubricating and hydraulic oils;
- Substation transformer insulating oil.
- Construction vehicles which contain antifreeze, fuels and lubricants

Material Safety Data Sheets (MSDS) for typical materials used by the project are provided for all contractors and subcontractors and are available in the Project's Safety Program File.

2.4 PREVENTATIVE MEASURES/BEST MANAGEMENT PRACTICES

Equipment Staging, Maintenance and Fuelling

- Store and maintain equipment in a designated area.
 - *No fuelling of equipment within 50m of a water source*
- Use secondary containment (drain pan) to catch spills when removing or changing fluids.
- Use proper equipment (pumps, funnels) to transfer fluids.
- Perform fuelling in designated fuelling areas.
- Do not "top-off" tanks
- Keep spill kits readily accessible
- Check incoming vehicles for leaking oil and fluids.
- Transfer used fluids and oil filters to waste or recycling drums.
- Inspect equipment routinely for leaks and spills.
- Repair equipment immediately, if necessary.
- Implement a preventative maintenance schedule for equipment and vehicles.

Regulated Waste/Hazardous Waste Storage Area

- Use entire volume before disposing of the container.
- Retain the original product label or MSDS.
- Recycle any useful material (used oil)
- Segregate wastes by waste type.
- Minimize the quantity of hazardous waste generated onsite and maintain storage quantities, times and disposal in compliance with local regulations (note, it is not anticipated that the Project will generate hazardous waste).
- Arrange for disposal of hazardous waste at an approved waste facility.
- Train employees in proper hazardous/regulated material and waste management (WHMIS).

2.5 CONTAINMENT

All vehicles on site will be required to have a spill kit. A large kit will be located at the be located at selected wind turbine construction areas in an area near crane activity so that a spill kit is reasonably near locations where spills are most likely to occur.

Equipment Staging and Maintenance Area

An equipment leak from a fuel tank, equipment seal, or hydraulic line will be contained within a spill pad placed beneath the source.

Fuelling Area

A spill during fuelling operations will be contained within a spill pan for small container handling, or portable secondary containment berms in the storage areas. The transfer of fuel into portable equipment will be performed using a funnel and/or hand pump, and a spill pad used to absorb any incidental spills/drips. If a drum is noted to be leaking, the drum will be repaired with a patch kit. A spill response kit will be located near the fuelling area for easy access.

2.6 SPILLS TO SOIL

In the event that a spill occurs the following procedures are to be followed:

- Stop operations.
- Identify the product - check container design, warning labels, markings, etc.
- Prevent personnel from approaching the site and keep them at a distance sufficiently removed that they will not be injured by, or cause, a fire or explosion.
- Stop the flow at the source - reduce or terminate the motion of product without endangering anyone
- Assess the extent of the spill.
- Report the spill to your supervisor and the RES site environmental advisor and provide basic information such as location of spill and amount.
- Complete "Spill Response Form" (Appendix 1). All completed Spill Response Forms will be kept at a main construction field office.

Petroleum spills do not have to be reported to (MOE) if the following criteria are met:

- The quantity is known to be less than 100 litres; and
- The spill is contained and under the control of the spill, and
- The spill has not, and will not reach the Provinces' water or any land; and
- The spill is cleaned up within 2 hours of discovery
-

IF the spill does not meet the above criteria, the spill must be reported to:

Ministry of the Environment

1-800-268-6060

A spill is considered not to have impacted the land if it occurs on a paved surface such as asphalt or concrete. A spill in gravel or dirt parking lot is considered to have impacted land and is reportable if it does not meet the criteria stated above.

2.7 SPILLS INTO WATER

All spills to the Provinces water must be reported and contained immediately. There is no minimum spill amount.

- Stop the source of the spill immediately.
- Shut down all equipment and ignition sources in the area.
- Immediately notify RES site environmental advisor.
- Notify Ministry of the Environment and RES HSQE.
- Notify a spill response contractor
- Install boom and absorbent to contain the spill.
- Clean up absorbent and waste materials and dispose at an approved waste disposal facility.
- Decontaminate the area, equipment and surfaces that have contacted the spilled material.

2.8 DISPOSAL

Wastes will be transported via truck to an appropriate certified disposal facility and copies of the manifests will be obtained for our files .

2.9 TRAINING

All personnel working on the construction of the wind farm, its ancillary components and associated roadways will be briefed upon arrival to the Project Site as part of their safety and environmental orientation as to the nature of possible spill hazards, as well as the location, content, and usage of spill kits.

2.10 REQUIRED ITEMS ONSITE

A spill kit which should include: Poly containment pail, oil absorbent pads, heavy duty disposal bags, nitril gloves, to control a line breaks.

3.0 EMERGENCY CONTACT INFORMATION

Ministry of the Environment (MOE) Spill Hot line: *1-800-268-6060*



SPILL RESPONSE FORM – SOUTH KENT WIND FARM

Instructions: Complete for any type of petroleum product or hazardous materials/waste spill or incident. Provide a copy of this report to RES project environmental advisor.

- 1 Person Reporting Spill or Incident: _____
- 2 Type of Spill: _____
- 3 Location of Spill: _____
- 4 If no spill, describe incident: _____

Name:		Company:	
Title:		Address:	
Telephone:			
E-Mail:			
Signature:			

Common Name of Spilled Substance:	
Quantity Spilled (Estimate):	
Concentration (Estimate):	
Date of Spill:	

Weather Conditions	
Temperature:	
Wind Direction and Speed:	
Precipitation:	
Other:	

Time Spill Started	___ AM ___ PM	Time Spill Ended:	___ AM ___ PM
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Potential for groundwater contamination? Yes No (circle one)

SPILL TO LAND		SPILL TO WATER BODY	
Name of Site:		Name of Water Body:	
Street Address:		Location of Discharge with Reference to Fixed Point:	
City/Town:		Description of Area which Spilled Material May Reach:	
County:			
SPILL REPORTED TO:			
Name/Number:		Name/Number:	

Organization/Agency:	Organization/Agency:
Date/Time:	Date/Time:
Name/Number:	Name/Number:
Organization/Agency:	Organization/Agency:
Date/Time:	Date/Time:

5. Actions taken:

To contain spill or impact of incident:

To Clean up spill or recover from incident:

To remove clean-up material:

To prevent recurrence:

6. Person responsible for managing termination/closure of incident or spill:

Name: _____ Phone: _____

Email: _____

Appendix 2 – Concise Spill Prevention and Response (SPAR) Plan

South Kent Wind Project Concise SPAR Plan

How to Deal With a Spill or Release

Use these notes in case of an accidental release to the environment of a hazardous or regulated chemical.

***** ALWAYS KNOW YOUR LOCATION *****

(Each turbine location is numbered, for example T01, T13, etc.)

***** IMMEDIATELY REPORT ALL RELEASES OF CHEMICALS TO YOUR SUPERVISOR AND THE RES ENVIRONMENTAL ADVISOR Viola Dupuis-Redshaw (416) 455-2754 *****

In case of Spill to Land:

1. Stop operations
2. Identify the product - check container design, warning labels, markings, etc.
3. Prevent personnel from approaching the site and keep them at a distance sufficiently removed that they will not be injured by, or cause, a fire or explosion
4. Stop the flow at the source - reduce or terminate the motion of product without endangering anyone
5. Assess the extent of the spill
6. Immediately report the spill to your supervisor and the RES site Environmental Advisor **Viola Dupuis-Redshaw (416) 455-2754** and provide basic information such as location of spill and amount
7. Complete "Spill Response Form" (Attachment A) and give copy to Project Supervisor (or Designee). All completed Spill Response Forms will be kept at a main construction field office.

***** A spill kit** should include: Poly containment pail, oil absorbent pads, oil absorbent socks, heavy duty disposal bags, nitril gloves, all-purpose absorbent (such as sawdust or kitty litter), shovels, plugs and clamps to control a line breaks.

In case of Spill to Water:

1. Immediately notify the RES site Environmental Advisor **Viola Dupuis-Redshaw (416) 455-2754**
2. Notify Ministry of the Environment, if necessary
3. Notify a spill response contractor, if necessary.
4. Stop the source of the spill immediately.
5. Shut down all equipment and ignition sources in the area.
6. Install boom and absorbent to contain the spill.
7. Clean up absorbent and waste materials and dispose at an approved waste disposal facility.
8. Decontaminate the area, equipment and surfaces that have contacted the spilled material.

***** IMMEDIATELY REPORT ALL RELEASES OF CHEMICALS TO YOUR SUPERVISOR AND THE RES ENVIRONMENTAL ADVISOR Viola Dupuis-Redshaw (416) 455-2754*****