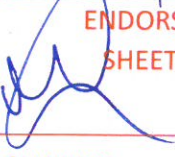


PLANNING AND ENVIRONMENT ACT 1987
PLANNING SCHEME MOYNE
PERMIT NO. 2006/0220/B
ENDORSED PLAN
SHEET 1 OF 14
SIGNED  FOR
MINISTER FOR PLANNING
DATE: 18/10/19



Woolsthorpe Wind Farm

Siemens Gamesa Renewable Energy Pty Ltd

Hydrocarbon and Hazardous Substances Plan

ENDORSED TO COMPLY
WITH CONDITION
13d
OF PLANNING PERMIT
2006/0220/B

IS280600_HHSP | Rev 4

25 June 2019



Hydrocarbon and Hazardous Substances Plan



Woolsthorpe Wind Farm

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Document history and status

Revision	Date	Description	By	Review	Approved
1	18/03/2019	Draft Hydrocarbon and Hazardous Substances Plan	Richa Ekka	Andrew Wallace	Phil Burn
2	14/05/2019	Update following client review	Richa Ekka	Andrew Wallace	Hugh Griggs
3	23/05/2019	Update following client advice no blasting to occur	Hugh Griggs	Andrew Wallace	Hugh Griggs
4	25/06/2019	Update following further client review	Richa Ekka	Andrew Wallace	Hugh Griggs

Hydrocarbon and Hazardous Substances Plan



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1. Introduction

1.1 Purpose

The purpose of this Hydrocarbon and Hazardous Substances Plan (HHSP) is to describe how hazardous substances will be managed throughout the construction and operational phases of the proposed Woolsthorpe Wind Farm (WWF) Project. Management and mitigation measures will be outlined in this plan to minimise potential impacts to the environment.

The objectives of this document are to establish processes for:

- Protecting neighbourhood amenity and site personnel from the use of hydrocarbons and other hazardous substances
- Protecting beneficial uses of air, land, water, human and environmental health, from the impacts of hazardous materials.

1.2 Document scope

This sub-plan includes the following information:

- State and federal legislative requirements and guidelines relevant to the management of hazardous substances
- Identification of hazardous substances that will be used on this project during construction and operation phases
- Risk mitigation and management measures to control potential impacts from hydrocarbons and hazardous substances, and
- Monitoring procedures that will be implemented for management of hydrocarbons and hazardous substances.

This document should be read in conjunction with the Construction and Work Site Management Plan which details how general construction impacts will be managed including risk of pollution from contaminants.

1.3 Planning permit conditions

The following planning permit conditions (Condition 15d 'Hydrocarbon and Hazardous Substances Plan' of the Planning Permit which is with the Minister of Planning for amendment) have been addressed within this plan:

The hydrocarbon and hazardous substances plan must include:

- i. Procedures for any on-site, permanent post-construction storage of fuels, lubricants, waste oil to be in bunded areas
- ii. Contingency measures to ensure that any chemical or oil spills are contained on-site and cleaned up in accordance with EPA requirements.

1.4 Consultation

This HHSP has been prepared in accordance with relevant Environmental Protection Agency guidance material. No other Victorian Government Agency consultation is required by the Planning Permit conditions prior to endorsement by the Minister of Planning.

2. Legislative and policy requirements

The key legislation and policy requirements that are relevant to the management of hydrocarbons and hazardous substances and are applicable to the proposed WWF are listed below.

Victorian Acts:

- *Planning and Environment Act 1987*
- *Dangerous Goods Act 1985*
- *Environment Protection Act 1970*
- *Occupational Health and Safety Act 2004*

Australian standards:

- Australian Standard 1940-2017: The storage and handling of flammable and combustible liquids
- Australian Standard 1216:2006: Class Labels for Dangerous Goods

EPA regulations and guidance:

- Environment Protection (Industrial Waste Resource) Regulations 2009
- Environment Protection Industrial Waste Resource Guidelines:
 - EPA Publication IWRG621: Soil Hazard categorisation and management 2009
 - EPA Publication IWRG631: Solid industrial waste hazard categorisation and management 2009
- EPA Publication 347.1: Bunding Guidelines 2015
- EPA Publication 480: Best Practice Environmental Management - Environmental Guidelines for Major Construction Sites, Section 8.4 Storage of chemicals and fuels, 1996.
- EPA Publication 878: Industrial Waste Management Policy (Prescribed Industrial Waste) Classification for Contaminated Soil.

Victorian regulations and guidance:

- Dangerous Goods (Storage and Handling) Regulations 2012.
- Code of Practice for the Storage and Handling of Dangerous Goods 2013
- Occupational Health and Safety Regulations 2017.

3. On-site hydrocarbon and hazardous substances

The following substances are likely to be stored and/or used on site during the construction and operational phases:

- Liquid fuels such as diesel and petrol
- Lubricating and hydraulic oils
- Oils for electrical insulation
- Coolants
- Chemicals for cleaning equipment and parts
- Waste and effluent from amenities
- Aggregates
- Agricultural pesticides and/or herbicides, and
- Cement and alkaline wastewater.

This list may not be exhaustive and the onsite Hazardous Materials Manifest and Safety Data Sheet (SDS) repository should be consulted for a complete list of hazardous substances used and stored on the site.

Given the potentially contaminating and hazardous nature of these substances, mitigation measures are required to control any potential environmental and health risks.

4. Environmental protection measures

In accordance with the legislative and policy requirements outlined in Section 2, the following measures will be implemented to mitigate environmental impacts resulting from the use and storage of hydrocarbons and hazardous substances on the Project site:

4.1 Chemical storage facilities and bunded areas

Any hydrocarbon and hazardous substance storage facilities and other bunded areas at the Project site will be designed and installed as follows to reduce adverse risks to the environment:

- Storage facilities for hydrocarbons and hazardous substances are to be lockable units with internal bunding
- Surface water run-off management is to be designed to divert away from bunded areas
- Bunding capacity is to be sufficient to store the total of the spilled material and rainfall that may enter the bunded area
- Appropriate signage and labels affixed to all hydrocarbon and hazardous substance storage areas, and
- Storage areas for hydrocarbon and hazardous substance are not to be in the immediate proximity (within 100m) of any waterways, stormwater system or other areas where spills may cause significant environmental damage, such as areas of high ecological value.

4.2 Management procedures

The following procedures outline the hydrocarbon and hazardous substance management procedures to be followed throughout the construction and post-construction phases of the Project:

- Safety Data Sheets (SDSs) will be readily accessible onsite for all hazardous substances used on the site
- SDSs and risk assessments will be provided for all hazardous materials on site
- Infrequently used hazardous materials shall only be delivered to site immediately before their use
- Biodegradable agents and materials will be preferentially selected where available
- Prescribed waste shall be removed from the site on a progressive basis and not allowed to unnecessarily stockpile
- Regular site inspections and audits of hazardous material storage, handling and use will be conducted as detailed in Table 5.1
- Environmental non-conformance procedures, as detailed in the EMP, will be administered in the event of an incident involving hazardous materials
- Induction training will be provided to all personnel on the requirements for the management of hazardous materials on the site, and
- Bunded areas are to be cleaned out as necessary, and potentially contaminated waste shall be disposed offsite in accordance with the waste disposal methodology described in this plan.

4.2.1 Storage of hydrocarbon and hazardous substances

Hydrocarbons and hazardous substances shall be stored as follows:

- Kept to an absolute minimum quantity and for the minimum period of time as is practicable
- In accordance with their SDSs within the designated bunded areas in the construction compound, and
- Segregated from incompatible materials.

4.2.2 Document management

Every hazardous material brought onto site shall be recorded into the Hazardous Materials Manifest and its current SDS shall be added to the SDS Repository.

The Hazardous Materials Manifest shall be maintained and stored in a secure location on site to ensure that a reliable estimate of hazardous materials present on the site can be retrieved quickly in case of an emergency and provided to the relevant regulatory authorities (e.g. Work Safe Victoria) and any other stakeholder who should request it (e.g. host landholders).

An SDS Repository shall be also maintained onsite throughout construction, to ensure that all relevant safety information for all hazardous materials present on the site can be retrieved quickly in case of an accident or incident or any emergency.

If prescribed waste is required to be removed from the site, it shall be transported in accordance with the *Environment Protection (Industrial Waste Resource) Regulations 2009* to a landfill licensed to accept such wastes. The Contractor's Construction Site Supervisor is responsible for keeping a record of the documentation from this process.

4.2.3 Refuelling

Refuelling of plant and equipment shall be managed through the adherence to the following measures:

- Refuelling of vehicles and machinery will be undertaken in designated bunded areas where possible
- Provision of appropriate spill prevention control measures to all mobile refuelling activities (e.g. drip tray located beneath fuel connection point)
- Refuelling must occur at least 100m from any area of significant environmental value, and
- Provision of spill kits in all refuelling trucks.

Appropriate spill kits shall be kept at any construction compounds or equipment storage and maintenance facilities and will remain at the substation site for the duration of the project. These shall be readily available at locations where spills are likely to cause a high environmental impact. All personnel involved with the construction and maintenance of the Project will be trained in the use of the spill kits.

General maintenance of hired plant should be undertaken off the site or within the Operation and Maintenance Building.

4.2.4 Rehabilitation

When a hazardous materials storage area is no longer required (e.g. at the end of the construction phase) the Project Manager shall ensure that the area is remediated and ensure that there is no soil contamination.

4.2.5 Contaminated soils

Prior to construction commencing, the contractor is to confirm with landholders any known locations where hazardous substances have previously been used, stored or buried along the construction corridor. During all earth works, the Contractor Site Safety & Environment Officer will conduct monitoring activities for contaminated soils at the site by observation of texture, colour, odour and viscosity of soils. If contaminated soil has been observed, the Project Manager shall be notified immediately, and the contaminated soil will be managed and disposed offsite in accordance with the EPA Publication 878: Industrial Waste Management Policy (Prescribed Industrial Waste) Classification for Contaminated Soil.

4.3 Contingency management

Minor hydrocarbon spills will be managed using spill kits on the site. Incidents will be managed in accordance with Section 4.2 Management procedures..

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Appropriate contingency measures are also required to respond to significant environmental incidents on site involving the use of hazardous materials and substances. This includes the unlikely occurrence of an unexpected event such as:

- Ignition of flammable and combustible liquids during normal construction operations, and
- Contamination of air, land and water, and human and ecological health effects, due to a spill or incorrect handling of hazardous substances.

The measures below will ensure that any chemical or oil spilt during these events will be cleaned up in accordance with EPA requirements.

4.3.1 Ignition of flammable and combustible liquids

In the event of an ignition of flammable and combustible liquids the following actions will be taken:

- Any fire emergency response to be undertaken in accordance with the Fire Emergency Response Plan
- When safe to do so, assess any environmental impacts to soil, air, water and ecological health
- Where required, inform the Environment Protection Authority Victoria (EPA), the Catchment Management Authority (CMA) and other relevant agencies
- Dispose of waste in accordance with EPA Industrial Waste Resource Guidelines, Section 6.3 Solid Industrial Waste Hazard Categorisation and Management (IWRG631)
- Review the incident, construction method and control measures and take corrective action if necessary, and
- Monitor the modified methods and controls to ensure compliance has been achieved.

4.3.2 Contamination of air, land and water

If a spill or the incorrect handling of hazardous substances leads to contamination of air, land and / or water, the following actions will be taken:

- Contain and clean up the spill on site by use of earth bunds, spill kits or other suitable means
- Dispose of waste in accordance with EPA Industrial Waste Resource Guidelines, Section 6.3 Solid Industrial Waste Hazard Categorisation and Management (IWRG631) and other guidelines where relevant
- Undertake spill management in accordance with the site Fire Emergency Response Plan
- Notify representatives of any agricultural activities that could be impacted by the spill
- Inform the relevant government agencies e.g. EPA Victoria, and
- Where appropriate, establish a monitoring program to monitor recovery from the contamination event. The program will be designed and implemented to determine the extent of impact based on the nature and extent of the environmental incident. The implementation of this program will be the responsibility of the Site Environment Officer/Manager.

4.4 Training

Details on the control procedures relating to the management of hazardous materials including spill clean-up will be conveyed to all construction personnel and contractors during site induction training (see Section 2 in ETRPMP).

This training will, at a minimum, include:

- The location of all bunded areas appropriate for the use of hazardous substances
- The correct procedure for the use of spill kits provided on site and the procedure for cleaning up spills

- How to read and understand the SDSs for each hazardous substance, and
- Appropriate handling procedures and precautionary measures for hazardous materials that will be stored and/or used on site.

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5. Control Measures

Table 5.1 outlines the various responsibilities held by staff throughout the construction of the Project with respect to the management of hydrocarbons and hazardous substances at the site.

	Action	Responsibility	Frequency
Overview	Meet the requirements of all legislation relating to hazardous substances, including the safe use, handling and storage of hazardous substances	All employees	Where hazardous chemicals are used and stored
Identify	Identify all hazardous chemicals in the workplace and maintain a register of hazardous chemicals on site	Construction Site Supervisor	Minimum annual review
	Create a manifest and send to Worksafe where the quantities of hazardous substances exceed thresholds	Safety & Environment Advisor	Minimum 5 yearly review
	Ensure that all hazardous substances are correctly labelled	Construction Site Supervisor	As required
	Ensure all new substances are reviewed by the Safety & Environment Advisor, approved for purchase and the SDS information is recorded	All employees/ Safety & Environment Advisor	When new chemical is required
Access	Complete risk assessments for hazardous substances where required (not mandatory)	Contractor Construction Site Supervisor	As required
Control	For each hazard identified in each of the risk assessments, consider and select controls using the hierarchy of controls to eliminate or minimise the control as far as practicable.	Contractor Construction Site Supervisor	During risk assessment Prior to the use of the chemical
	As part of risk assessment form, document reasons if only administrative or Personal Protective Equipment controls are to be used to manage a risk	Safety & Environment Advisor	During risk assessment
	Implement identified controls	Contractor Construction Site Supervisor	Prior to and during activity
Monitor and review	Monitor implementation of controls through workplace inspections and safety conversations	Safety & Environment Advisor	Ongoing
Emergency preparedness	Prepare a site emergency management plan for using or storing hazardous substances	Contractor Construction Site Supervisor	Prior to construction commencing
	Store and separate all hazardous substances and ensure storage areas are bunded	Contractor Construction Site Supervisor	Ongoing
	Ensure all relevant signage/placarding are installed, kept clean and unobstructed	Contractor Construction Site Supervisor	Prior to construction commencing
	Ensure hazardous substances are bunded and follow the EPA bunding guidelines	Contractor Construction Site Supervisor	Ongoing
	Ensure that measures in section 4.3.2 are followed when a hazardous substances spill occurs	Contractor Construction Site Supervisor	When a hazardous substance spill occurs
	Ensure all transportation of hazardous substances are in accordance of the ADG code	Contractor Construction Site Supervisor	During transporting of hazardous substances and oil-filled equipment

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	Action	Responsibility	Frequency
	Ensure hazardous substances are disposed in accordance with EPA requirements	Contractor Construction Site Supervisor	When disposal of hazardous substances is required
Training	Provide appropriate induction training on procedures for the safe storage, handling and use of hydrocarbons and hazardous substances	Contractor Construction Site Supervisor	As required
Records	Retain copies of all records created from this procedure available for inspection by the relevant Government agencies at any time	Project Manager	As required
Reporting	Records of monitoring results will be maintained during construction of the Project. Reporting to the Project Manager will include: <ul style="list-style-type: none"> • Incident reports • Mitigation and monitoring procedures and activities • Observations and complaints • Any other applicable data 	Contractor Construction Site Supervisor	As required

6. Monitoring

On-going monitoring of the management of hydrocarbons and hazardous substances that are used and stored onsite will be undertaken during the construction of the Project in accordance with Table 6.1.

Table 6.1 : Hydrocarbon and hazardous substances monitoring requirements

Performance objective	Control procedure / measures	Monitoring requirement	Monitoring frequency	Responsibility
Design and construct hydrocarbon and hazardous substances storage areas in accordance with relevant regulations and guidelines	All hydrocarbon and Hazardous substances storage areas shall be designed in accordance with EPA Bunding Guidelines and AS 1940:2004	Inspect presence of bund and bund integrity and confirm hydrocarbons and Hazardous substances are stored in accordance with EPA Bunding Guidelines and AS 1940:2004.	Weekly	Contractor Construction Site Supervisor
No spillage of hydrocarbons or hazardous substances beyond containment areas No discharge of hydrocarbons or hazardous substances to land or waterways	Refuelling and use of Hazardous substance must occur within bunded areas or with spillage/leakage prevention measures (e.g. drip tray).	Number of spills recorded as a non-conformance Inspection of area surrounding containment areas	As required Weekly	Contractor Construction Site Supervisor
Design and construct refuelling areas in accordance with relevant regulations and guidelines	Designated bunded areas are designed in accordance with EPA Bunding Guidelines and AS 1940:2004.	Inspect presence of bund and bund integrity	Weekly	Contractor Construction Site Supervisor
Control all spillages of hydrocarbons or hazardous substances beyond containment areas	All staff who use hazardous substances will be trained in control procedures including spill clean up Spill kits will be provided at storage and refuelling areas.	Presence of contingency plan Training during induction and tool box meetings Presence of adequate spill kits near storage and refuelling areas	Weekly As required Weekly	Contractor Construction Site Supervisor

7. Review

Control measures must be reviewed, and revised if necessary, in the following circumstances:

- The control measure does not control the risk it was implemented to control
- In anticipation of a change at the workplace that may create new or different risk that the extant control cannot effectively manage
- In response to an incident investigation finding or audit report
- A new relevant hazard or risk is identified, and
- An SDS or hazard classification of the chemicals is changed.