The Progress Power (Gas Fired Power Station) Order

Outline CEMP – GIS Variant

Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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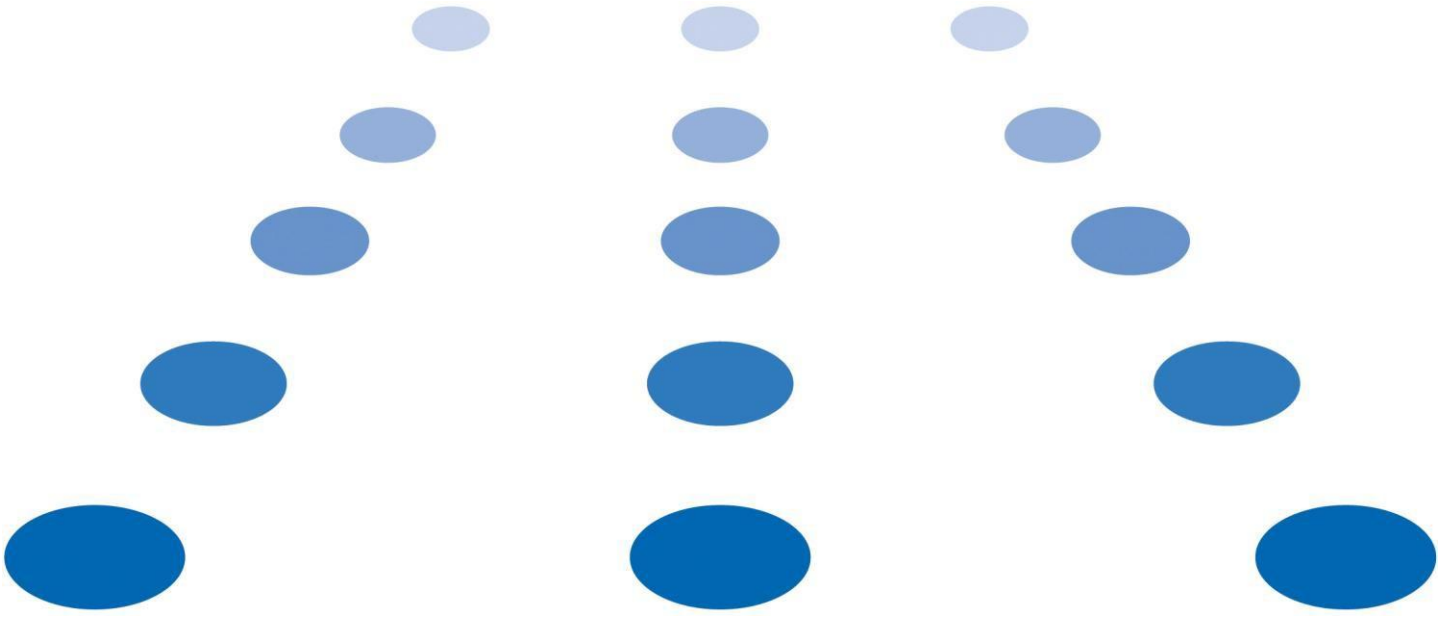

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PROGRESS POWER

December 2014

PROGRESS POWER PROJECT OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Progress Power Ltd

CONTENTS

GLOSSARY

Above Ground Installation	AGI	The above ground installation incorporating the minimum offtake and the PIG trap launching facility together with the access as described in Section 4 of this ES.
Best Practicable Means	BPM	Best Practicable Means is a term applied with regulations on limiting pollutant discharges with regard to the abatement strategy.
Closed-Circuit Television	CCTV	Closed-Circuit Television
Outline Construction Environmental Management Plan (CEMP):	CEMP	Refers to this document and provides an outline of the main environmental considerations which should be considered during construction of the Project and considered further in the final CEMP.
Required CEMP	-	Refers to the CEMP required by the DCO as defined by MSDC / SCC
Final CEMP	-	Refers to the CEMP produced by the main contractor and agreed by MSDC / SCC
Construction Traffic Management Plan	CTMP	Construction Traffic Management Plan involves the management of pedestrians, vehicles and equipment, which are located on- site.
DCO Application	-	The application for a DCO made to the Secretary of State under section 37 PA 2008 in respect of the Project, required pursuant to section 31 PA 2008 because the Project constitutes a Nationally Significant Infrastructure Project under section 14 (1)(a) and section 15 PA 2008 by virtue of being an onshore generating station in England or Wales of 50 MWe capacity or more.
Development Consent Order	DCO	Consent by a UK Government Minister for a Nationally Significant Infrastructure Project. A DCO can incorporate or override the need for a variety of consents which would otherwise be required for a development, including planning permission. A DCO can also include rights of compulsory acquisition. A DCO is made in the form of a Statutory Instrument.
The Developer	-	Means Progress Power Limited (PPL)

Draft DCO	-	The draft DCO which accompanies the DCO Application (Document Number: 3.1)
Environment Agency	EA	Executive Non-departmental Public Body responsible to the Secretary of State for Environment, Food and Rural Affairs.
Ecological Management Plan	EcMP	Ecological Management Plan is a synthesis of all proposed mitigate and monitoring actions, set to a timeline with specific responsibility assigned and follow-up actions defined. It is normally incorporated as part of the Environmental Management Plan (EMP), one of the most important outputs of the
Electrical Connection	-	A new underground electrical cable connection to export electricity from the Power Generation Plant into the national electricity transmission system.
Electrical Connection Route	-	The route of the Electrical Connection.
Environmental Health Officer	EHO	Environmental health officers make sure that people's living and working surroundings are safe, healthy and hygienic.
Environmental Statement	ES	The final document which provides a comprehensive discussion on the Environmental Impact Assessment.
Gas Connection	-	A new underground gas pipeline connection to bring natural gas to the Power Generation Plant from the existing high pressure gas network NTS in the vicinity of the proposed Project Site including the above ground infrastructure (AGI) for the gas pipeline at the point of connection to
Gas Connection Route Corridor	-	The route of the Gas Connection, including the site of the AGI
Kilometres per Hour	Km/h	Measurement of distance travelled over an hour.
Mega Watt	MWe	Measurement of electrical power.
MIfA	MIfA	A Member of the Institute for Archaeologists
Nationally Significant Infrastructure Project	NSIP	The Project constitutes a Nationally Significant Infrastructure Project (NSIP) by virtue of s.14(1)(a) and s.15 of the Planning Act 2008 (PA 2008) which include within the definition of a NSIP any onshore generating station in England or Wales of 50 MWe capacity or more.

National Transmission System	NTS	A network of gas pipelines throughout the United Kingdom that supply gas to power stations from natural gas terminals situated on the coast, and also gas distribution companies which lead indirectly to homes.
Personal Protective Equipment	PPE	Personal protective equipment refers to protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury.
Planning Act 2008	PA 2008	UK legislation which passes responsibility for dealing with development consent applications for NSIPs to the Planning Inspectorate , who will examine applications and make recommendations for a decision by the relevant Secretary of State (the Secretary of State for Energy and Climate Change in the case of energy NSIP applications)
Power Generation Plant	-	A SCGT gas fired 'peaking' power generating plant capable of providing up to 299 MWe (Work No. 2 in the Draft DCO);
Power Generation Plant Site	-	The site of the Power Generation Plant.
Project		The Power Generation Plant, the Electrical Connection and the Gas Connection together.
Project Site	-	The site of the Project corresponding to the Order Limits of the Draft DCO
Simple Cycle Gas Turbine	SCGT	A Simple Cycle Gas Turbine is a type of gas turbine most frequently used in the power generation, aviation, and oil and gas industry (electricity generation and mechanical drives). The simple cycle gas turbine differs from a combined cycle operation in that it has only one power cycle (ie. no provision for waste heat recovery).
Site of Importance for Nature Conservation	SINC	A Site of Importance for Nature Conservation
SHE Officer	-	The site safety, health and environment officer
Secretary of State for Energy and Climate Change	SoS	Her Majesty's Principal Secretary of State for Energy and Climate Change is a British government cabinet position.
Works Plans		Plan showing the numbered works referred to in the Draft DCO (Document Number: 2.7);

1 INTRODUCTION

1.1 Overview

1.1.1 Progress Power Limited (PPL) is making an application for a Development Consent Order (DCO) to the Secretary of State for Energy and Climate Change (SoS). The DCO will authorise PPL to construct and operate a new 299 megawatt electrical (MWe) simple cycle gas turbine (SCGT) Power Generation Plant together with integral Gas and Electrical Connections (hereafter referred to as 'the Project'). The Power Generation Plant will be located at the former Eye Airfield, Suffolk.

1.2 Purpose of this document

1.2.1 This document provides an outline from which a final Construction Environmental Management Plan (CEMP) will be produced which will govern the construction works (including site preparation/demolition) associated with the Project for all contractors. This document will be hereafter referred to as the 'outline CEMP'. This outline CEMP is informed by the Environmental Statement (ES) and associated DCO documents.

1.2.2 Schedule 2 of the DCO includes a requirement to approve CEMP(s) in a staged manner by the local planning authority, namely Mid Suffolk District Council (MSDC), prior to the commencement of any works. Such CEMP(s)) will be developed after any grant of a DCO, in conjunction with, or by, the main contractor/s appointed for such works once the timescales for the detailed implementation are defined.

1.2.3 The final CEMP should consider the following:

- Complaints procedures;
- Nuisance management including measures to avoid or minimise the impacts of construction works (covering dust, noise, vibration and lighting);
- Lighting;
- Waste management;
- Surface and ground water mitigation measures;
- Procedure in the event significant archaeological remains are encountered;
- Landscape and visual impact mitigation (such as retention of existing trees and minimising visual intrusion of construction works
- Security measures;

- Traffic and Transport mitigation measures (such as a Construction Traffic Management Plan (CTMP)) prepared by the main contractors); and
- Ecological mitigation measures (such as an EcMP)

1.2.4 In considering these environmental matters the final CEMP will provide information on:

- A register of environmental aspects [the effects of the Scheme];
- Roles and responsibilities;
- Communication and co-ordination;
- Training and awareness;
- Operational control;
- Checking and corrective action; and
- Environmental control measures.

1.2.5 The final CEMP will fall within the scope of the main contractor's externally certified international environmental management systems, and as such will be subject to independent audits by the relevant certification bodies.

1.2.6 This outline CEMP provides sufficient information, based on best practice guidance and mitigation measures in the ES to act as a framework for the final CEMP and to provide assurance to the decision maker and stakeholders that all appropriate measures will be taken forward to the construction phase.

1.3 Project Description

1.3.1 The Power Generation Plant will operate as a Simple Cycle Gas Turbine (SCGT) peaking plant and has been designed to provide an electrical output of up to 299 Megawatts electrical (MWe). The plant will be fuelled by natural gas.

1.3.2 The three main elements of the Project comprise:

- A new **Power Generation Plant**, a SCGT gas fired power generating station capable of providing up to 299 MW, incorporating up to five gas turbine generators (GTG) with up to five exhaust gas flue stacks.
- A new electrical connection, (referred to as the **Electrical Connection**) to export electricity from the Power Generation Plantto the National Grid Transmission System. This element incorporates a new underground cable circuit connection (the **Cable**), and a new access road (the **Access Road**), with a new road junction off the A140 (the **A140 Junction**), and a new Electrical

Connection Compound comprising a new substation (the **Substation**) and sealing end compound (the **Sealing End Compound**); and

- A new gas pipeline connection (referred to as the **Gas Connection**) to bring natural gas to the Power Generation Plant from the NTS in the vicinity of the Project Site. This element incorporates an above ground installation (**AGI**) at its southern end and a new access road off Potash Lane.

1.3.3 The Power Generation Plant, Gas Connection and Electrical Connection together are referred to as the Project.

1.3.4 The Project constitutes a Nationally Significant Infrastructure Project (NSIP) by virtue of section 14 (1)(a) and section 15 of the Planning Act 2008 (PA 2008) which includes within the definition of an NSIP any onshore generating station in England or Wales of 50 MWe capacity or more. Under section 31 PA 2008 a development consent order (DCO) is required to develop a NSIP. Under section 37 PA 2008 this can only be granted if an application is made for it to the Secretary of State (SoS) (the DCO Application).

1.3.5 This outline CEMP is part of a suite of documents which accompany the DCO Application and should be read in conjunction to gain a fuller understanding of the Project.

2 OUTLINE CEMP – GENERAL INFORMATION

2.1 Register of Environmental Impacts

2.1.1 A register of Environmental Impacts is required to be produced as part of the CEMP. This Register would be used to inform the environmental procedures and provide a tool for construction teams when preparing construction method statements or field briefings. This register would also comprise the various risks identified in the Environmental Statement (ES) and would be regularly updated to reflect any additional risks resulting from the main contractor/s selected methods of working, changing site conditions etc. Risks would be identified under the following general headings:

- Noise & Vibration;
- Air Quality & Emissions;
- Geology & Soils;
- Water Quality, Drainage & Hydrology;
- Landscape and Visual Impacts;
- Ecology;
- Traffic and Transport;
- Health and Waste;
- Archaeology and Cultural Heritage; and
- Combined Impacts.

2.2 Risk Assessments

2.2.1 All activities undertaken on-site would be subject to an environmental risk assessment. Environmental risk assessments would be undertaken by trained staff following an approved procedure which will:

- Identify potential environmental impacts that can be anticipated;
- Assess the risks from these impacts;
- Identify the control measures to be taken and re-calculate the risk; and
- Report where an unacceptable level of residual risk is identified so that action can be taken through design changes, re-scheduling of work or alternative methods of working in order to reduce the risk to an acceptable level.

2.2.2 The results of risk assessments, and their residual risks are only considered acceptable if:

- The severity of outcome is reduced to the lowest practical level;
- The number of risk exposures are minimised; and
- All reasonably practical mitigating measures have been taken and the residual risk rating is reduced to a minimum.

2.2.3 The findings of the risk assessment and in particular the necessary controls would be explained to all contractors before the commencement of the relevant works using an agreed instruction format (e.g. Toolbox Talks).

2.3 Method Statements

2.3.1 Method statements would be completed by the main contractor or sub-contractor by trained engineers or other appropriately experienced personnel, in consultation with on-site staff and, where necessary, environmental specialists. Their production would include a review of the environmental risks and commitments, so that appropriate control measures are developed and included within the construction process.

2.3.2 Method statements would be reviewed by the main contractor or sub contractor's appointed environmental manager and, where necessary, by an appropriate environmental specialist. Where required, method statements would also be submitted to the enforcement agencies (Environment Agency, Environmental Health Officer etc.). Method statements would most likely contain the following:

- Location of the activity and access/egress arrangements;
- Work to be undertaken and methods of construction;
- Plant and materials to be used;
- Labour and supervision requirements;
- Health, safety and environmental considerations; and
- Any permit or consent requirements beyond those already obtained (including the DCO).

2.4 Site Environmental Standards

2.4.1 Site Environmental Standards would be agreed with the main contractor and would detail the minimum measures that should be achieved for general operations falling outside the risk assessment/method statement procedure. The site environmental standards would be designed to cover the majority of construction activities in accordance with the ES submitted with the application and requirements associated with the DCO.

2.4.2 These will cover issues such as storage of materials, management of waste, noise and vibration, and water pollution control. The standards

will be printed on A3 posters, placed on site notice boards and used as a briefing tool on site. These standards will also form the basis of Toolbox talks which will inform all contractors working on site of the potential environmental risks arising from construction activities.

2.4.3 Best practice construction site management techniques will be implemented to avoid/minimise the generation of excessive waste, dust, noise, lighting, noise and vibration, in accordance with the ES and relevant requirements associated with the DCO. These are discussed in more detail in Section 3 of this document.

2.5 Environmental Management System

2.5.1 Following construction, an Environmental Management System for commercial operation will be developed and contained within the overall Business Management System prepared by the operator and designed to comply with ISO 14001 or an equivalent recognised standard.

2.5.2 Implementation of ISO 14001 is a Key Strategy for PPL and the use of an Environmental Management Plan for commissioning based on ISO14001 (or similar) will be used to support implementation and compliance with the DCO and the Environmental Permit that will be required for operation of the Project under the Environmental Permitting (England and Wales) Regulations 2011. All operational staff for the Project will be given comprehensive environmental awareness training as part of this process.

2.5.3 During the commissioning phase of the Project, PPL will require its environmental and compliance procedures to be implemented and used by the main contractor and the operator.

2.6 Public Relations

2.6.1 The following steps will be taken to make the public aware of the activities on site and the available lines of communication with PPL:

- A Community Liaison Group will be set up to include members of the Local Community and Councils. PPL suggest that the Community Liaison Group invite a member of the British Horse Society to be one of their number;
- Neighbouring occupiers will be notified of the start of site works and the likely duration of the overall demolition and construction phases;
- A telephone number for environmental complaints will be published local to the site. The site safety, health and environment (SHE) officer will be responsible for dealing with any complaints and will have the appropriate authority to resolve any issues that may occur. The SHE and Site Managers out of office contact details will be available at all times;

- The SHE officer will maintain a close liaison with the council's Environmental Health Officer (EHO) at all times;
- Should any complaints regarding dust, noise or light be received by the SHE officer the details will be passed to the EHO for verification purposes; and
- Should any unforeseen event occur within the construction site that has the potential to cause off-site pollution then the SHE officer will immediately notify the EHO by phone and e-mail. As far as possible notice will be issued to the EHO for dealing with an unforeseen activity which may give rise to a particular dust problem.

2.7 Monitoring and Measurement

2.7.1 Weekly site inspections will be carried out which will assess the potential for environmental emergency situations to arise on the site. Additionally the main contractor will assess the potential for environmental incidents on a daily basis across the site. Particular notice will be taken during and following extreme weather events, when working in areas of known contamination, and when particularly hazardous activities are being carried out. Method Statements will be required where the risk assessment has identified a significant risk to the environment.

2.7.2 In the event of any environmental incident the most senior representative of the main contractor will take the role of the responsible person and will take charge of the situation. Where possible, the responsible person will take immediate steps to eliminate the impact on the environment and mitigate/minimise any environmental damage.

2.8 Roles and Responsibilities

2.8.1 Suggested specific roles and responsibilities for the implementation of the final CEMP are described below:

PPL Project Director

2.8.2 The PPL Project Director would have overall responsibility for environmental performance throughout the construction period and will ensure that appropriate resources are made available and environmental control and any agreed or appropriate protection measures are implemented.

Environmental, Health & Safety Management

2.8.3 The Site Manager would be appointed the responsibility for co-ordinating and managing all the environmental activities during the construction phase. The role would involve will carrying out the following duties:

- Develop and review the CEMP and specialist procedures;

- Lead the appointment of construction environmental specialists;
- Ensure delivery of environmental training to personnel within the project team;
- Monitor construction activities and performance to ensure compliance with the CEMP and that identified and appropriate control measures are being effective;
- Act as a main point of contact between the regulatory authorities and the project on environmental issues;
- Monitor construction activities and performance to ensure control measures are effective;
- Maintain full records of the progress of the Environmental Works;
- Implement an auditable environment record system;
- Maintain regular contact and liaison with the Environmental Specialists;
- Carry out audits as required by the CEMP;
- Ensure compliance with Duty of Care at all times; and
- Implement and monitor measures to ensure correct waste minimisation, segregation and disposal.

3 OUTLINE CEMP – SPECIFIC MEASURES

3.1 Introduction

3.1.1 This section outlines some of the specific design and mitigation measures which will be used in the CEMP for the Project in order to limit impacts on noise and vibration, air quality, contaminated land and groundwater, ecology, archaeology and cultural heritage and landscape and visual amenity. It will additionally outline the measures to prevent impacts arising from artificial lighting.

3.2 Noise and Vibration

3.2.1 This section outlines the potential sources of nuisance noise created by construction works and the methods of mitigation proposed to limit these impacts which should be adopted in a CEMP.

3.2.2 All construction activities will be undertaken in accordance with requirements attached to the DCO and the recommendations of BS5228 'Noise and Vibration Control on Construction and Open Sites'. It details the legislative background to noise control, along with the recommended procedures for effective liaison between developers, site operators and local authorities. Methods of how to minimise the impact of site noise on workers and local residents are also provided.

3.2.3 The main mitigation measure to limit impacts of nuisance noise on human receptors is to ensure noise levels do not exceed the noise thresholds set out in the ES (65 dBA daytime) and to undertake noise monitoring during construction to make sure these agreed thresholds are not breached.

3.2.4 In addition, construction works shall not take place outside the hours of 07:00-19:00 Monday to Saturday, unless otherwise agreed with MSDC/ SCC.

3.2.5 If works are required outside of these core construction hours then method statements and risk assessments will be required to be submitted to the local planning authority for approval.

3.2.6 To minimise the risk of noise complaints, the main contractor will advise potentially affected residents of the works to be undertaken outside of working hours. The residents will also be provided with a point of contact for any queries or complaints.

3.2.7 The main contractor and all sub-contractors working on-site have a general duty to take all reasonably practicable measures to minimise nuisance from noise and vibration that has the potential to impact

on the local community or environment. To achieve this and avoid the potential for construction works to give rise to consequences that would otherwise be statutory nuisances (but for the provision of the DCO), Best Practicable Means (BPM) as defined in section 79(9)(a) of the Environmental Protection Act 1990 must be employed and the following requirements will be complied with:

- Appropriate selection of plant, construction methods and programming. Only plant conforming with relevant national or international standards, directives or recommendations on noise or vibrations emissions will be used;
- Construction plant will be operated and maintained appropriately, having regard to the manufacturer's written recommendations or using other appropriate operation and maintenance programmes which reduce noise and vibration emissions;
- All vehicles and plant will be switched off when not in use;
- Approved routes and programming for the transport of construction materials, spoil and personnel to reduce the risk of increased noise and vibration impacts due to the construction of the project;
- Vehicle and mechanical plant used for the purpose of the works should be fitted with effective exhaust silencers, to be maintained in good working order and operated in such a manner as to be maintained in good working order and operated in such a manner as to minimise noise emissions. The contractor should use plant items that comply with the relevant EU/UK noise limits applicable to all equipment;
- All ancillary plant such as generators, compressors and pumps would be positioned so as to cause minimum noise disturbance (e.g. as far away as practicable from residential receptors). If necessary, temporary acoustic barriers or enclosures would be provided;
- The positioning of construction plant and activities to minimise noise at sensitive locations;
- Equipment that breaks concrete by munching or similar, rather than by percussion, should be used as far as is practicable;
- The use of mufflers on pneumatic tools;
- Where practicable, rotary drills actuated by hydraulic or electrical power should be used for excavating hard materials;
- The use of non-reciprocating construction plant where ever practicable;

- The use, where necessary, of effective sound reducing enclosures;
- The targeting, where possible, of noisy work at times which minimise disturbance; and
- To prevent damage to adjacent structures, demolition and construction activities will be carried out in accordance with Part 2 of BS 7385:1993 (Evaluation and Measurement for Vibration in Buildings).

3.3 Air Quality

3.3.1 Relevant air quality mitigation measures are outlined in Chapter 6 of the ES and in the Statement of Engagement of Section 79(1) of the Environmental Protection Act 1990 (Document number: 5.5). However, the following provides an outline of the processes which could be employed in the final CEMP in order to reduce dust and exhaust emissions during construction.

3.3.2 This section outlines the potential sources of air pollution created by construction works and the methods of mitigation proposed to limit these impacts which should be adopted in the final CEMP. The following provides an outline of the processes which should be employed in the final CEMP in order to reduce dust and exhaust emissions during construction.

3.3.3 Construction/demolition activities associated with the greatest potential for dust generation are:

- Earthworks including excavation of topsoil, handling on site and deposition;
- Handling and storage of materials (including loading and unloading);
- Wind blow across disturbed/exposed site surfaces and materials;

  and
- Mechanical operations such as crushing, drilling, concrete mixing and cutting.

3.3.4 In order to ensure the employment of BPM to minimise the risk of adverse effects from construction dust and causing nuisance or damage to flora and fauna specific control measures for limiting nuisance dust and exhaust emissions during construction are as follows:

Site Management

- Records of dust and air quality complaints to be kept, including likely causes and mitigation measures to reduce impacts if appropriate;
- Keep site perimeter, fences etc. clean.

Site Planning

- Consideration of weather conditions, dust generating potential of material to be excavated prior to commencement of works;
- Plan site layout to maximise distance from plant/stockpiles etc. to sensitive receptors;
- Dusty materials should be removed from site as soon as possible.

Construction Traffic

- Loads entering and leaving the site with dust generating potential should be covered and wheel washing facilities made available;
- No idling of vehicles;
- Vehicles to comply with site speed limits (15mph on hard surfaces, 10mph on unconsolidated surfaces);
- Water assisted sweeping of local roads to be undertaken if material tracked out of site; and
- Install hard surfacing as soon as practicable on site and ensure that they are maintained in good condition.

Site Activities

- Exposed soils should be revegetated as soon as practicable. Near residential properties or sensitive ecosystems (<50m), use hessian/mulches etc. where not possible to revegetate or cover with topsoil;
- Minimise dust generating activities, particularly near residential receptors/sensitive ecosystems during prolonged dry, dusty weather unless damping / other suppressants are used;
- Ensure an adequate water supply to site and use water as dust suppressant where applicable;
- Ensure any site machinery is well maintained and in full working order;

- Ensure equipment available for cleaning spills etc available at all times; and
- Sand and aggregates should be stored away from sensitive receptors and screened/shielded. Similarly concrete batching should take place away from receptors.
- To ensure that dust generated by construction works does not exceed levels which could constitute a nuisance;
- The prolonged storage of debris on-site, in temporary stockpiles will be avoided.
- Vehicles removing demolition or site clearance materials must have their loads effectively sheeted on all sides.
- Crushing of material for reuse, transportation or disposal should be undertaken as far away as possible from sensitive receptors.

3.3.5 On-site burning of waste material will be forbidden.

3.3.6 The number of handling operations should be minimised, ensuring that dusty material is not moved or handled unnecessarily. Fine material should be delivered to site in bags. Drop heights must be kept to a minimum.

3.3.7 Hard-standing areas for vehicles entering, parking and leaving the Project Site should be provided, with wheel washing facilities at access points where there is a risk of tracking mud onto local roads. Plant and wheel washing will be carried out in a designated area of hardstanding at least 10 m from a watercourse or surface water drain. Where this is not possible alternative mitigation will be implemented.

3.3.8 The performance of the wheel washing system will be maintained by the regular removal of settled sediment from within the sump. Run-off from this area will be collected in a dedicated sump and water will be recycled/re-used wherever possible. Where recovery is not possible, water from the sump system will be emptied to a dedicated storage tank prior to its removal from site for authorised disposal by a suitably licensed contractor.

3.3.9 Site roads should be cleaned regularly, and damped down if necessary to prevent nuisance dust. Site vehicle movements should be kept to a minimum and, where possible, restricted to paved haulage routes. Vehicle speeds will be limited to 10 km/h. The idling of vehicles will be kept to a minimum.

3.3.10 The main contractor will have responsibility on a day to day basis for determining if either the nature of the activities on site or weather conditions would be likely to result in the unacceptable transfer of dust

off site. In cases where this is anticipated, remedial action will be taken to minimise emissions, including the application of appropriate control measures, or if necessary, the temporary suspension of works.

3.3.11 Good site management practices during the construction works will help to prevent the generation of airborne dust. It will be the responsibility of the nominated main contractor and site manager to ensure through the final CEMP that sufficient precautionary measures to limit dust generation are in fact taken.

3.4 Pollution and Groundwater

3.4.1 Desk based assessment of the area around the Project Site have not revealed levels of contamination which are likely to pose a risk to human health or cause a statutory nuisance. Intrusive ground investigations will be undertaken at the Project Site prior to construction which will further define the exact nature of ground conditions. However, based on evidence to date, there are not anticipated to be any significant issues with contamination at the Project Site.

3.4.2 Land under which the Project will be developed has remained as undeveloped greenfield land and therefore there is low likelihood of contamination.

3.4.3 Professional standards and guidance relating to contamination will be consulted to provide advice on best practice mitigation measures which will be employed during the construction/demolition phase of the Project.

3.4.4 This multi-stage process is only to cover unexpected contamination.

3.4.5 Sensitive receptors are as follows:-

- Construction workers (during excavation and works);
- Site users;
- Groundwater; and
- Surface water bodies.

3.4.6 There is a small risk of construction workers coming into contact with contaminated soils and groundwater during construction.

3.4.7 There will be no access to construction areas by the general public.

3.4.8 The site will be secured to avoid unauthorised access and contact with contaminated soil or groundwater.

3.4.9 In the case that unidentified contaminant “hotspots” showing visual of olfactory evidence of contamination are discovered during construction works, the following procedure will be applied:

- Stop work immediately;
- Report the discovery to the construction manager;
- Seal off the area to contain the spread of contaminants;

- Clear the area to ensure there is nothing that could cause fire or explosion;
- Contact the regulator or local authority once it is confirmed that contamination is found;
- Arrange for testing to be carried out and agree changes to the existing contamination strategy; and
- Record details of the incident, including photos and relevant information on the Environmental Incident Report Form.

3.4.10 Any material which is excavated and free from visual and olfactory evidence of contamination will be stockpiled and tested for metal (and other determinants) for reuse on site. Any soils which are considered to be contaminated hotspots (either identified through testing or through visual or olfactory evidence of contamination on site) will be removed and disposed of by a suitably licensed contractor or treated on-site.

3.4.11 All water from dewatering activities shall either be transported off site by a suitably licensed contractor or treated on site. Any proposed discharges to existing land drains (or other surface water bodies) will be undertaken in accordance with the requirements of the EA Regulatory Position Statement on temporary water discharges from excavations.

3.4.12 Where soils are imported onto the site then they shall be subject to testing to ensure contaminated soils are not being brought onto the site.

3.4.13 Speed restrictions will be imposed onsite to minimise disturbance of bare surfaces. Measures shall also be put into place to ensure that the length of time bare surfaces are left exposed are minimised.

3.4.14 Precautions will be undertaken in accordance with the EA's Pollution Prevention Guidance to ensure that silt laden runoff, arisings or chemicals are not allowed to enter watercourses. Measures will include, testing of arisings to see whether they are suitable for reuse on site, siting stockpiles well away from watercourses, covering stockpiles in inclement weather, use of impermeable liners and use of fixing agents.

3.4.15 Although the main contractor undertaking the works will be required to produce a risk assessment and method statement detailing how they will minimise the risk of coming into contact with potentially contaminated materials, the following can be considered as a guide for the final CEMP:

3.4.16 Compliance with the mitigation measures set out in the following documents:

- Protection of Workers and the general public during the development of contaminated land (HSE 1991); and
- If applicable, a guide to safe working on contaminated sites R132 (CIRIA 1996).

3.4.17 The use of deep bore soakaways (including boreholes or other structures that bypass the soil layers) at the site carries groundwater pollution risks and for surface water or effluent disposal are only acceptable if it can be demonstrated that:

- there are no other feasible disposal options such as shallow soakaways (for surface water) or drainage fields/mounds (for effluents) that can be operated in accordance with current British Standards;
- the system is no deeper than is required to obtain sufficient soakage;
- pollution control measures are in place;
- a risk assessment demonstrates that no unacceptable discharge to groundwater will take place, in particular that inputs of hazardous substances to groundwater will be prevented; and
- that there are sufficient mitigating factors or measures to compensate for the increased risk arising from the use of deep structures. Details of mitigation and procedures should be provided through the preparation of the Construction Environment Management Plan (CEMP), necessary to satisfy draft DCO Requirement 11.

3.4.18 Work will be carried out in accordance with best practices and safe working practices will be maintained.

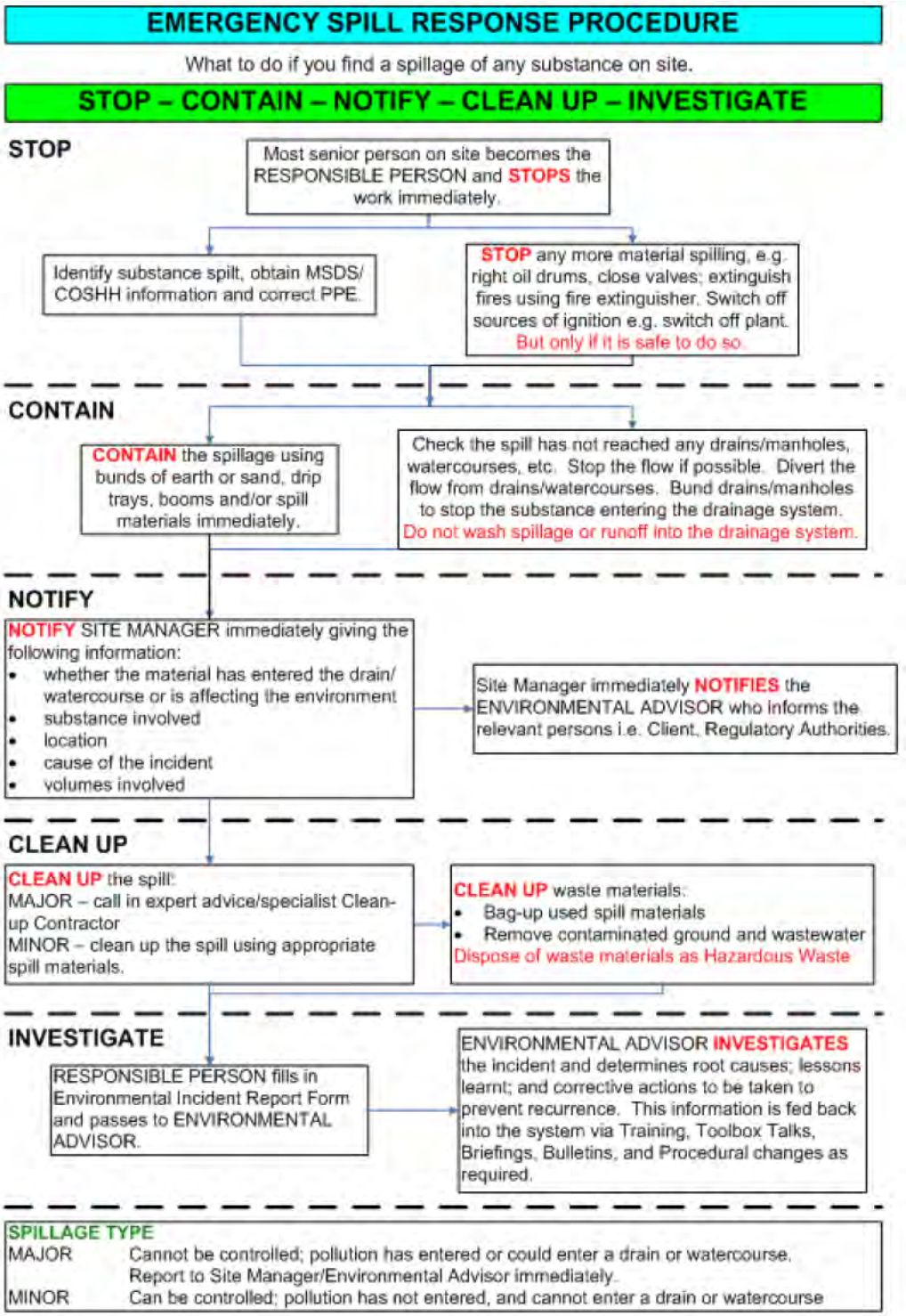
3.4.19 Construction workers will wear appropriate personal protective equipment (PPE) for the nature of works being undertaken. This will involve standard site PPE, plus overall, gloves and eye protection.

3.4.20 Additional measures that will likely be taken are:

- Eating, drinking and smoking will be limited to a designated ‘clean’ area of the site;
- Site welfare facilities will be made available;
- All workers will be required to wash their hands and remove overalls/boots when moving from ‘dirty’ to ‘clean’ areas of the site;

- Any soils excavated which are considered to be potentially contaminated (e.g. visual or olfactory evidence) will be reported to site management and left alone until their appropriate treatment. Suitable training will be provided to site personnel to ensure the correct identification of potentially contaminated soils by olfactory means; and
- Water inflows to excavated areas will be minimised by the use of lining materials, good housekeeping techniques and by the control of drainage and construction materials in order to prevent the contamination of ground water. Site personnel will be made aware of the potential impact on ground and surface water associated with certain aspects of the construction works to further reduce the incidence of accidental impacts.
- Measures should be taken to avoid/minimise the potential for fuel and chemical spills. A spill response procedure will also apply on- site; and indicative procedure is shown in Insert 3.1 below.

Insert 3.1: Emergency Spill Response Procedure



3.5 Surface Water

3.5.1 To ensure that there will be no discharges to any watercourses as a result of construction activities at the Project Site, the following matters should be included in the detailed CEMP:

- Oil storage will be undertaken in accordance with the Control of Pollution (Oil Storage) Regulations 2001. Storage tanks will be located on an impervious base provided with bund walls to give a containment capacity of the greater of 110 per cent of the largest tank volume within the bund or 25 per cent of the total storage capacity of all tanks within the bund. All valves and couplings will be contained within the bunded area;
- Any surface water which has the potential to be contaminated by hydrocarbons (e.g. from car parks), which are used during the construction phase, to be passed through oil interceptor(s) prior to discharge;
- Measures will be taken to ensure that no leachate, or any surface water that has the potential to be contaminated, will be allowed to enter directly or indirectly into any water course, underground strata or adjoining land;
- Provisions will be made so that all existing drainage systems continue to operate;
- Water inflows to excavated areas will be minimised by the use of lining materials, good housekeeping techniques and by the control of drainage and construction materials in order to prevent the contamination of ground water. Site personnel will be made aware of the potential impact on ground and surface water associated with certain aspects of the construction works to further reduce the incidence of accidental impacts;
- Refuelling of construction vehicles and equipment will be restricted to a designated area with properly designed fuel tanks and bunds and suitable operating procedures; and
- The British Standard Code of Practice for Earthworks BS 6031:1981 and British Standard Code of Practice for Foundations BS 8004:1086 contains detailed methods that will be adopted during construction.

3.6 Ecology

3.6.1 Relevant works to protect/mitigate impacts on ecology and biodiversity are described in more detail in the ES. The preparation of the CEMP will be consistent with the best practice advice on CEMPs contained within Chapter 10 of BS42020 (or its updates). Appropriate regard for

the protection of local habitats and protected species during the construction works will be included within the CEMP and will incorporate the following measures:

- Work compounds and access tracks etc. will not be located in, or adjacent to, areas that maintain habitat value;
- Site fencing will be used to prevent access to areas outside working areas, particularly in areas adjacent to features of ecological value;
- Procedures will be implemented to address site safety issues, including storage of potentially dangerous materials;
- Briefings and instruction would be given to contractors regarding the biodiversity issues associated with the site; and
- Pollution prevention guidelines provided by the Environment Agency (including but not limited to PPG01, PPG02, PPG03, PPG05 and PPG06) would be followed to prevent pollution of water courses by silt or chemicals.

3.6.2 An Ecological Clerk of Works will be appointed to undertake pre-construction ecological surveys, supervise vegetation clearance and be available to advise the contractor and liaise with the County Ecologist and Natural England should protected species be found or disturbed during the construction process.

3.7 Landscape and Visual Impacts

3.7.1 The following mitigation measures, as outlined in the ES will be implemented during the construction phase in order to specifically limit impacts on landscape and visual amenity of the surrounding area:

- Land / vegetation clearance and occupation will be limited to the minimum necessary for the works;
- Temporary protection of trees and hedgerows and other vulnerable features will be undertaken in accordance with BS5837:2012 or its updates. Details of existing trees to be retained, with measures for their protection, will be submitted for the approval of MSDC prior to the commencement of development in accordance with Requirement 5. An Arboricultural Clerk of Works will be appointed to ensure protection measures are implemented and maintained during construction and to liaise with MSDC Tree Officer as required. ;
- Temporary storage of soils and other material considered of value for retention. Where practical stockpiles would be sited to screen the construction works from highly sensitive receptors;

- Construction areas will be laid out to minimise adverse impacts arising from temporary structures, construction activities and lighting;
- Construction roads will use the same route as permanent access roads where possible;
- Use of construction site lighting outside normal working hours will be restricted to the minimum necessary for workforce and public safety, and for security. Directional luminaries will be used to limit unwanted light spill; A detailed scheme of lighting for the Construction period will be agreed with MSDC see 3.9 below.
- Maintenance of tidy and contained site Compounds;
- Temporal measures including the removal of all temporary structures and stockpiles when no longer required, and prompt reinstatement of construction areas;
- Reinstatement of all agricultural land required temporarily during construction, and a 5 year aftercare plan to seek to ensure land is returned to its former productivity; and
- Replacement of all trees, shrubs and hedgerows removed to accommodate the utility Connections, subject to NG locational planting constraints.
- A detailed scheme for the restoration of land occupied during the construction period will be agreed with the relevant local authority
- The location and installation of the gas pipeline shall be such so as to, wherever possible, minimise future constraints on planting as indicated in the Eye Airfield Development Framework

3.8 Archaeology / Cultural Heritage

3.8.1 An assessment of the potential archaeological and cultural heritage resource at the site has been undertaken as part of the ES.

3.8.2 Written Schemes of Investigation (WSI) have been prepared for the further evaluation and excavation to be undertaken prior to the start of construction.

3.9 Artificial Lighting

3.9.1 The Project Site will require artificial lighting during construction to provide a safe working site during hours of darkness. An Outline Lighting Layout (Document number: 2.10) has been prepared to support the DCO Application. The general design objectives that will be used to ensure that adverse effects of lighting associated with

demolition and construction of the Project are minimised are listed below:

- Use appropriately designed luminaires for the task at hand;
- Use louvres and shields to prevent undesirable light break-out;
- Demolition and construction lighting should be directed away from all sensitive receptors;
- Preference should be given to several, lower lighting units rather than tall, wide beam lighting units to illuminate large areas as it will limit light trespass, glare and sky glow from the plant;
- Vehicle lights should be properly directed (conforming to MOT requirements) and lenses must be intact to prevent un-necessary glare and light intrusion;
- Lighting should be reduced or switched off when not required for safety purposes. Security lighting should be kept at the minimum level needed for visual and security protection; and
- Motion sensitive lighting will be used in order to avoid unnecessary lighting.

3.9.2 Arrangements for construction lighting following these principles should be set out in the final CEMP, to be agreed with MSDC.

3.10 Equestrian Management

3.10.1 Due to known equestrian activity in and around the villages to the west of the A140, the safety of horses and their riders in the vicinity of the Project Site must be a consideration, particularly during the construction and decommissioning phases when traffic and plant movements will be at their highest.

3.10.2 In order to ensure safety of horses and their riders, PPL will work with SCC, MSDC, and the community liaison group (see section 2.6 above) to agree a scheme of mitigation for horses and equestrians that is in line with guidance produced by the British Horse Society.

3.10.3 The types of mitigation to be agreed may include:

- Use of advance signage on the approach to the construction area to provide warning to horse riders and equestrians (signage should be of a suitable, secure type to ensure it does not pose a risk to horse and rider safety, i.e. no loose, flapping boards of plastic),
- Maintenance of sight lines, wherever practical, to avoid sudden exposure of equestrians to construction activities

- Use of noise attenuation measures such as low level acoustic screening in areas closest to equestrian routes, where practicable, and subject to safety requirements relating to visibility and access.
- The use of banks men to provide plant operators with warning of approaching horses so that appropriate action can be taken (such as stopping 20m from crossing points and turning off engines until horses have passed).
- Use of appropriate, secure fencing and gates to ensure horses cannot stray into construction areas.
- Instruction of construction staff regarding correct behaviour in close proximity of horses and riders.

3.10.4 It is not anticipated that any special surfacing measures will be required as the construction will only affect short sections of tarmac road currently used by equestrians. This road is to be excavated, and then reinstated to its original condition. In the event that temporary surfaces are required, these will be designed to be compatible with British Horse Society guidelines.

3.11 Protection of Historic Field Boundaries

3.11.1 Temporary protection of historic field boundaries will be undertaken in tandem with the temporary protection of trees and hedgerows. Historic field boundaries within the Order Limits that are to be specifically protected are identified in the Protected Field Boundaries Plan at Appendix A. In addition, PPL commits to retain all historic field boundaries within the Order Limits, other than the lengths that are listed in Table 3.1.

3.11.2 Protective measures and working methodologies required in order to protect the historic field boundaries that PPL has committed to specifically protect or to retain (i.e. all historic field boundaries within the Order Limits other than the lengths that are listed in Table 3.1 below) would be determined following:

- the undertaking by PPL of an arboriculture assessment report of the historic field boundaries to be impacted by the development;
- the undertaking by PPL of a detailed site survey of the historic field boundaries to be impacted by the development, such survey to include a topographic survey, and preparation of a method statement for the protection of retained boundaries and features in liaison with SCC in order to agree with SCC appropriate barriers, ground protection and stand-off.

3.11.3 Protective measures/working methodologies are likely to include, but not be limited to, the following:

1. All field boundaries (FBs): Demarcate section of boundarie sto be retained on the ground, using unique and readily visible materials and erect appropriate signage, barriers, and ground protection at agreed stand-off distance, prior to the commencement of construction, so as to avoid accidental damage;
2. FBs 1,4,7,9,16,17: a) Demarcate section of boundaries to be permanently removed on the ground, using unique and readily visible materials and erect appropriate signage, prior to the commencement of construction, so as to avoid exceeding agreed lengths (see Table 3.1); b) Record sections of boundaries to be removed in accordance with the archaeological WSI to be finalised as part of the approval of the Written Scheme of Investigation pursuant to Requirement 9 of the DCO;
3. FB9: a) Undertake a viability assessment of hedgerow coppicing on FB9; b) undertake a viability assessment of plating over/bridging of FB9 (GIS);
4. FB9: a) Following the viability assessments referred to in point 3 above, and assuming a positive outcome to the viability assessment demarcate section of boundary hedgerow to be temporarily removed on the ground, using unique and readily visible materials and erect appropriate signage, prior to the commencement of construction, so as to avoid compromising agreed mitigation; b) coppice hedgerow along defined section, c) plate/bridge over to create construction access across boundary, and d) construction operations to be undertaken in accordance with agreed working methodology (to be finalised as part of the approval of the Final CEMP pursuant to Requirement 11 of the DCO);
5. All FBs: Appointment of Archaeological Monitor to ensure protection measures are implemented and maintained during construction and to liaise with SCC. Archaeological Monitor would regularly inspect all identified historic boundaries throughout the construction phase i) to assess for signs of deterioration or accidental damage, ii) to assess the adequacy and effectiveness of the protective measures and working methodologies, and iii) to review/amend them, as necessary.

Table 3.1 - Field Boundary lengths to be removed during construction/operation

FB	Boundary components	FB Length Removal Construction	FB Length Removal Operation
01	H, Ewk, Bg	Limited to c.10m (c.5m for Access Road, c.5m for Cable and drainage etc)	Limited to c.10m (c.5m for Access Road, c.5m for Cable and drainage etc)
04	Ewk, Bg	Limited to c.20m	Limited to c.10m (c.5m for Access Road, c.5m for Cable and drainage etc)
07	H, Ewk, Bg	Limited to 10m (Bg only – as gap in H and Ewk will be used)	Limited to 10m (Bg only – as gap in H and Ewk will be used)
09	H, Ewk, Bg	Cable: 30m (including 10m temporary coppicing). Access: 5m Total: 30m	Cable: 20m Access: 5m Total: 25m
16	H, Ewk, Bg	c.6m	c.6m
17	H, Ewk, Bg	c.13m	Due to reinstatement pursuant to requirement 6(3), this boundary will be replanted.

H = Hedgerow, Ewk = Earthwork, Bg = Belowground asset

4 CONCLUSIONS

4.1.1 This outline CEMP provides a framework on which the construction contractor should base a more detailed CEMP.

4.1.2 Mitigation measures have been outlined to limit impacts of noise levels, air quality, contaminated land and groundwater, ecology, archaeology and cultural heritage, landscape and visual amenity and artificial lighting. These mitigation measures should be taken forward for further consideration when preparing the detailed CEMP.

4.1.3 It has also outlined a series of general best practice principles which should be adhered to, including; a register of environmental impacts, the production of risk assessments and Method Statements, the adherence to Site Environmental Standards, the production of an operations Environmental Management System, dealing with Public

Relations, the monitoring and measurement of construction activities and the roles and responsibilities of key site staff.

Revision: P1
Drawing Number: 3512438B/L/0016
Project Number: 3512438B

FB12
1.22m RH
FB08
Pond
FB18
FB03
FB07
FB09
FB04
FB01
FB06
FB10
FB13
FB11
FB14
FB02
FB05
FB15
LEVEL LANE
0
50
100 m
SCALE 1:1000

Pond
Track
FB16
Pond
FB17
Whitehou

LEGEND

- DENOTES ORDER LIMITS
- DENOTES BOUNDARY/HEDGEROW GAPS
- DENOTES FIELD BOUNDARY JUNCTIONS
- DENOTES REMAINING HISTORIC FIELD BOUNDARIES
- DENOTES REMOVED HISTORIC FIELD BOUNDARIES
- BOUNDARIES TO BE PROTECTED

Notes

1. Table 3.1 of the Outline CEMP specifies the maximum length of remaining historic field boundary which can be removed.

Rev	Date	Description	By	Chk	App
P1	19/12/14	Note added & minor mods	MP	AG	CH
P0	17/12/14	Preliminary	MP	AG	CH

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Site/Project:
PROGRESS POWER PROJECT

Title:
APPENDIX A
GIS VARIANT
PROTECTED BOUNDARIES PLAN

Drawn:	M.PADLEY	Checked:	A. GREGORY
Designed:	MP	Approved:	C. HENNESEY
Date:	09/12/2014	Scale: As shown / A1	Sheet:
Project Number:	3512438B	Drawing Number:	3512438B/L/0016
Revision:	P1		

Login: Padley, Matthew
Plot Date: 18/12/2014 15:55:05
File Name: G:\GROUPS\Projects\3512438A - Stag Energy NGET Generation applications\CAD Drawings\3512438B020-L016_P1_GIS Field Boundaries - protected.dwg