



APPENDIX 4-1

**CONSTRUCTION STAGE
HEALTH, SAFETY AND
ENVIRONMENTAL PLAN
(2020)**

Meenbog Wind Farm Site

Construction Stage Health, Safety & Environmental Plan Rev 2.0 - 24/04/2020

Prepared By: MCE Ltd.



At Meenbog Wind Farm, Meenbog, Co. Donegal.

The information contained in this Construction Stage Health & Safety Plan has been prepared following review of the PSDP Preliminary Health & Safety Plan and a site investigation. It will be reviewed and updated on a continuous basis by the Project Supervisor Construction Stage and the Health & Safety Coordinator. It does not take account of any matter or information which was not brought to the attention of the PSCS or which occurred after the time of publication.

Signed:
Project Supervisor Construction Stage

Date:

TABLE OF CONTENTS

1.0	INTRODUCTION	5
2.0	SAFETY, HEALTH AND WELFARE OBJECTIVES	7
3.0	GENERAL PROJECT DESCRIPTION	8
3.1	PROJECT DESCRIPTION (MEENBOG WIND FARM).....	8
3.2	LOCATION:	11
3.3	CLIENT:	11
3.4	PROJECT SUPERVISOR DESIGN PROCESS.....	11
3.5	PROJECT SUPERVISOR CONSTRUCTION STAGE PHASE 1	11
3.6	PROJECT SUPERVISOR CONSTRUCTION STAGE PHASE 2	12
3.7	RESPONSIBLE PERSON ON SITE.....	12
3.8	HEALTH AND SAFETY CO-ORDINATOR	12
3.8	PLANNING CONSULTANTS	12
3.10	SUB-CONTRACTORS VARIOUS, TO BE CONFIRMED FOR SPECIFIC ACTIVITIES.....	12
3.11	INTENDED PROJECT TIMELINE.....	13
3.12	EMERGENCY ROUTES	13
3.13	WORKING HOURS.....	13
4.0	EXISTING SERVICES	15
4.1	ELECTRICITY:	15
4.2	WATER:	15
4.3	TELECOMMUNICATIONS:	15
5.0	RESPONSIBILITIES	17
5.1	PROJECT SUPERVISOR CONSTRUCTION STAGE (P.S.C.S.): MCE LTD.....	17
5.2	HEALTH AND SAFETY CO-ORDINATOR: CHRIS MURNANE	18
5.3	SITE ENGINEER: SEAN O'DRISCOLL / CHRIS O'MAHONY/ GEOFFREY SHERIDAN	19
5.4	EMPLOYEES RESPONSIBILITIES / DUTIES	19
6.0	CONSULTATION ON SITE.	22
6.1	COMMUNICATION OF HEALTH AND SAFETY ON SITE.	22
7.0	HEALTH AND SAFETY CO-ORDINATOR	24

8.0	EMERGENCY ARRANGEMENTS, ACCIDENT REPORTING & WELFARE ON SITE.....	25
8.1	FIRST AID.....	25
8.2	ACCIDENT RECORDING, REPORTING & INVESTIGATION.....	25
8.2.1	RECORDING, REPORTING & INVESTIGATION.....	25
8.2.2	PROCEDURE IN CASE OF ACCIDENTS, DANGEROUS OCCURRENCES OR NEAR MISS INCIDENTS.....	26
8.2.3	FOR SERIOUS INJURY OR COLLAPSE.....	26
8.2.4	ACCIDENT REPORT.....	27
8.3	WELFARE.....	27
8.4	FIRE ARRANGEMENTS.....	28
8.5	CANTEEN FACILITIES.....	28
8.6	CORONAVIRUS – COVID-19.....	28
8.6.1	COVID-19 CHARACTERISTICS.....	28
8.6.2	COVID CONTROL MEASURES.....	30
8.6.3	COVID-19 COMPLIANCE OFFICER.....	33
8.6.4	COMMUNAL AND WELFARE FACILITIES.....	35
9.0	DISCIPLINARY PROCEDURE.....	37
10.0	SAFETY FILE.....	38
11.0	EMERGENCY PROCEDURE.....	39
12.0	PARTICULAR RISKS TO THE SAFETY AND HEALTH OF PERSONS AT WORK.....	40
13.0	REQUIREMENTS TO BE APPLIED AS REGARDS THE GENERAL PRINCIPLES OF PREVENTION.....	41
14.0	MINIMUM SAFETY AND HEALTH REQUIREMENTS FOR CONSTRUCTION SITES.....	42
15.0	LIST OF VEHICLES REQUIRING AUXILIARY DEVICES AND VISUAL AIDS.....	43
16.0	CONSTRUCTION SKILLS CERTIFICATION SCHEME (SOLAS).....	44
17.0	APPENDIX.....	45
17.1	PROJECT DIRECTORY.....	45
17.2	CONSTRUCTION PHASE SITE RULES.....	47
17.3	EXISTING ON-SITE RISKS IDENTIFIED BY THE PSDP & PSCS.....	50
17.4	SAFETY LEGISLATION.....	54
17.5	PSCS SITE BOUNDARIES.....	55



17.6	CATASTROPHIC EVENT FLOWCHART	56
17.7	EMERGENCY PROCEDURES	57
17.8	RISK ASSESSMENT	58
17.9	TEMPORARY WORKS REGISTER	59

1.0 INTRODUCTION

This Safety and Health Plan for **Meenbog Wind Farm** has been prepared in accordance with the requirements of the *Safety, Health and Welfare at Work (Construction) Regulations, 2013 (SI 291)*. The plan has been prepared for the purpose of assisting in securing the Health and Safety of all on site or affected by work activities on site.

Meenbog Wind Farm which is being developed by Planree Ltd. Ionic Consulting is acting as PSDP with MCE acting as PSCS for the initial site enabling works at both the windfarm site and substation site. The overall project is made up of 19 wind turbine generators which will connect to the transmission network at 110kV at the existing Clogher Substation, which is 9.6km from IPP Substation. The permitted Maximum Export Capacity (MEC) of the project totals 91.2MW.

Meenbog Wind Farm has a connection agreement with EirGrid for an MEC of 138.1 MW, Connection Agreement Number P258B. It has been arranged with Eirgrid that this connection agreement is phased in two stages of 90MW (“**Phase 1**”) and 48.1MW (“**Phase 2**”). Meenbog will be connected under Phase 1 of this agreement. The Meenbog substation site and associated cable route is permitted by ABP decision Ref: PL ABP-300460-17. Copies of these planning files are available upon request from the PSCS.

The information contained in this plan has been prepared prior to the commencement of the construction phase and takes into account the Preliminary Health and Safety Plan prepared by Ionic Consulting. It attempts to take account of matters or information presently at hand, information that may come to light during the construction, and allows for unforeseen matters or information that may come to light after this preparation.



2.0 SAFETY, HEALTH AND WELFARE OBJECTIVES

The Safety, Health and Welfare objectives are to carry out construction works at the site, in so far as is reasonably practicable,

- I. Within the following time scale commencing: Construction at the substation and preliminary site investigation at the turbine locations will begin in July 2019.

- II. With due regard to the welfare of staff without putting at significant risk their health and safety, and that of others who may be affected by the activity of persons at work on the project, including the general public, Client, Client's Employees and local residents should they be in contact with any parts of this work.

In addition, obligations referenced in the above listed documents, all Contractors must:

- Provide a copy of their safety statement, insurances and employee training records;
- Review the construction stage health, safety and environmental plan prior to commencing work onsite and to take note of any site restrictions;
- Give due regard to the welfare of staff without putting at significant risk their health and safety, and that of others who may be affected by the activity of persons at work on the project, including the general public, Client, Client's Employees and local residents should they be in contact with any parts of this work.
- Liaise and co-operate with the PSCS by providing all site-specific documentation for integration into the Safety and Health Plan;
- Ensure all operatives coming to site have completed a site induction and signed up to their companies RAMS;
- Review all available existing documentation.

During the construction phase of the project MCE Ltd. will provide a site induction to all staff and visitors attending the site and outline the site-specific risks associated with all works. All visitors to site are required to notify the MCE operational controller (+353 868032620) when arriving and leaving site so that in the event of an emergency a definite number of people onsite will be known.

3.0 GENERAL PROJECT DESCRIPTION

3.1 PROJECT DESCRIPTION (MEENBOG WIND FARM)

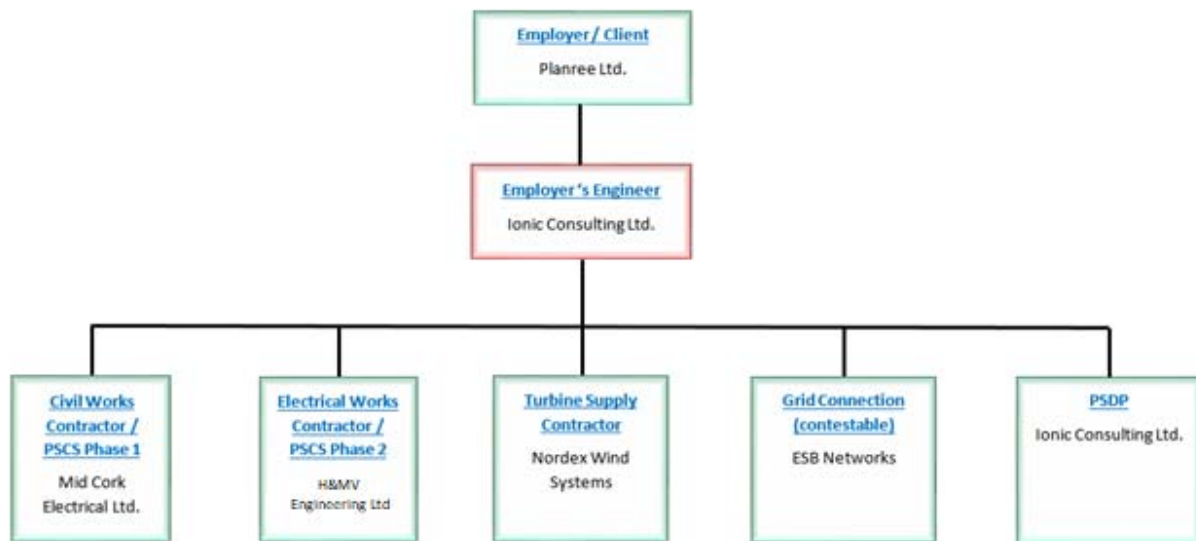
The project consists of the design and construction of permanent and temporary works associated with Meenbog Wind Farm and Meenbog Substation. There is a separate construction stage H&S plan for the Meenbog Substation and underground grid connection cable route site, which is available to all contractors and should be reviewed as the two sites are under construction at the same time. Meenbog wind farm has 16 wind turbines permitted. Works shall consist of 16 wind turbine generators, site drainage, turbine foundations, crane hardstanding's, underground cabling & earthing, and all associated ancillary site works including borrow pits, upgrade of existing and provision of new internal access roads and facilitating public road works along the delivery routes set out in the maps appended.

The weather experienced is often harsh or extreme in nature.

The Employer shall enter into the following Design & Building Contracts for completion of the wind farm project:

- Turbine Supply Agreement
- Civil Works Contract
- Electrical Works Contract

It is proposed that MCE Ltd will act as PSCS for the WF Site [see red boundary outline in the Site Boundaries Map in Appendices] until the WTG supply activities commence, usually prior to delivery of the first main component to the site. SUIR Engineering will become the PSCS for the substation once MCE handover at formation level, and Ionic Consulting Ireland will act as PSDP for these works for the duration of the project. The division of the H&S boundaries and PSCS areas are identified in the Appendices. It should be noted that MCE Ltd. will be PSCS for the wind farm site until the EWC mobilises to site. Ionic Consulting Ireland Ltd. will act as PSDP for all areas of the site for the Meenbog WF development.

Project Structure:

Site Constraints and Facilities

The site is located along a national road, the N15, approximately halfway between Donegal Town and Ballybofey. The weather experienced at the site is often harsh or extreme in nature. The Site is primarily made up of peatland and commercial forestry. Although there was no ongoing commercial forestry harvesting activity or stockpiling visible during the preliminary site visit, it is reasonable to expect some forestry related activities during the construction phase of the wind farm. This is a potential hazard that all Contractors must consider when planning and conducting their activities. Any coordination with Coillte that may be required with the ongoing activity should be accounted for in RAMS and programmes etc.

There is public access to the Site and the Contractors must conduct their activities in a manner that both protects and facilitates the general public in their enjoyment of the Site. There are existing water courses on the Site which presents a potential environmental risk for construction that contractors are to be aware of.

Appropriate traffic management plans to mitigate against contractor risk should be designed and adhered to during the works which will also be subject to;

- Traffic management plans to be prepared by the Contractor;
- Inspections by Donegal County Council;
- Inspections by EirGrid/ESB Staff.

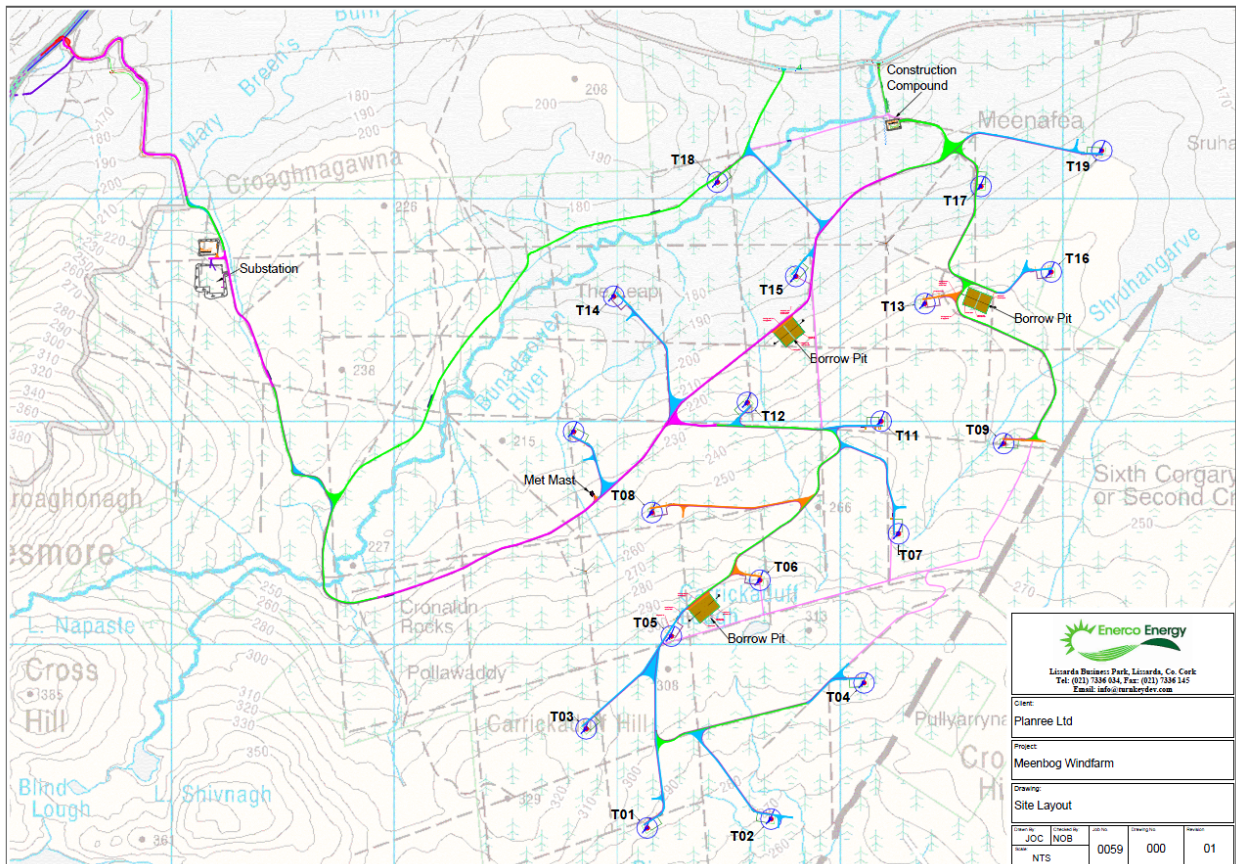
There is no drinking or potable water at site and each Contractor shall provide their own potable water supply for the duration of their Site works. There are various restraints set out in the planning conditions, and these are included in the respective construction contracts. A copy of the planning file and conditions is available from the PSDP upon request. The contractors are to conduct their Works in accordance with the submitted planning documentation and planning conditions applied by Donegal County Council and An Bord Pleanála as applicable.

The contractor's Construction Method Statements must address the site constraints where appropriate and they should be considered by the Contractor and PSCS as part of the planning and execution of all their respective Works and as per their duties under the Construction Regulations 2013. The Contractor shall conduct the Works in accordance with the site operating procedures and safety rules and raise any concerns that they may have with the PSCS.

The Construction Method Statements must also include an analysis of risk in accordance with the Employer's Barrier System for risk management. The PSCS shall ensure that all works are conducted in accordance with the site operating procedures and safety rules. Additional site data (climatic, geotechnical, meteorological, environmental etc.) is available from Ionic Consulting where required to assess and mitigate site risks.

3.2 LOCATION:

The Wind Farm turbines are located over the townlands of Meenbog and Croaghonagh.



3.3 CLIENT:

Name: Planree Ltd,
 Address: Lissarda Industrial Park, Lissarda, Co Cork
 Contact: Stephen O'Connor
 Telephone: 021-7336034

3.4 PROJECT SUPERVISOR DESIGN PROCESS

Name: Ionic Consulting Ireland Ltd.
 Address: The Hyde Building, The Park,
 Dublin 18. D18VC44
 Contact: Claire Looney
 Telephone: 01-8458442

3.5 PROJECT SUPERVISOR CONSTRUCTION STAGE PHASE 1

Name: MCE Ltd.

Address: Lissarda Industrial Park, Lissarda, Co. Cork
Contact: Chris O'Mahony / Chris Murnane
Telephone: 086-0329552 / 086-7955083

3.6 PROJECT SUPERVISOR CONSTRUCTION STAGE PHASE 2

Name: H&MV Engineering Ltd
Address: Unit 35 McLoughlin Road, Castletroy, National Technology Park, Co. Limerick
Contact: Colin McCabe
Telephone: 087-7378573

3.7 RESPONSIBLE PERSON ON SITE

Name: Sean O'Driscoll / Chris O'Mahony / Geoffrey Sheridan
Address: Lissarda Industrial Park, Lissarda, Co. Cork
Telephone: 086-8528329 / 086-0329552 / 086-4183665

3.8 HEALTH AND SAFETY CO-ORDINATOR

Name: MCE Ltd.
Address: Lissarda Industrial Park, Lissarda, Co. Cork
Contact: Chris Murnane
Telephone: 021-7336034

3.8 PLANNING CONSULTANTS

Name: McCarthy Keville O'Sullivan Ltd
Address: Block 1, G.F.S.C, Moneenageisha Rd, Galway
Contact: Brian Keville
Telephone: 091-735611

3.10 SUB-CONTRACTORS VARIOUS, TO BE CONFIRMED FOR SPECIFIC ACTIVITIES

Activity:
Name:
Address:

3.11 INTENDED PROJECT TIMELINE

The overall time frame for the works shall take 18 - 20 months from design commencement to take over of the works under the individual contracts. It is expected that some of the works and contracts will run concurrently. The following timescale shall apply for the works, which takes account of the necessary measures to minimise interface risks to ensure the project is completed safely:

- Turbine Supply Agreement – 5 months from the 1st WTG arrival on site.
- Civil Works Contract – 14 months on site.
- Electrical Works Contract – 14 months on site.

The appointed Contractor(s) shall provide a detailed programme for their works and shall update monthly as the project progresses. During times when the contractors' works overlap or when significant works are being undertaken, a programme shall be issued weekly. The PSCS will be responsible for co-ordinating the activities of the various on-site contractors.

3.12 EMERGENCY ROUTES

See attached emergency procedure guidelines.

3.13 WORKING HOURS

The working hours of the site will be restricted to standard and acceptable times where reasonably practicable, which are as follows: -

Monday – Friday:	7.00am to 7.00pm
Saturday:	7.00am to 4.00pm
Sunday:	N/A

Any other hours shall be by agreement with the site management ONLY.

Work on Sundays or public holidays will only be conducted in exceptional circumstances or in an emergency and will only be conducted with prior consent from the client. It is expected that there will be variation to the working hours under the following circumstances:

- The erection of the WTGs as these activities are governed by suitably slack wind speeds and it may be required to schedule works in order to maximise suitable weather forecasts.
- The delivery of the WTGs as these deliveries will be governed by the conditions associated with the oversized load delivery licences, which typically only allow such deliveries at night times and off-peak hours.

In the event that activities outside of normal working time are needed, the PSCS shall ensure that a suitable Site-Specific Risk Assessment Method Statement is complete in advance of the works for review by PSDP.

4.0 EXISTING SERVICES

All relevant bodies i.e. County Council, ESB, Eircom, etc. will be contacted and all existing services in the vicinity of the construction site will be identified and marked prior to construction commencing.

4.1 ELECTRICITY:

Location:	Main Office
Authority/Body to Consult:	Electricity Supply Board (ESB)
Contact:	ESB
Telephone:	1850 372 999

4.2 WATER:

Location:	Main Office
Authority/Body to Consult:	Irish Water
Contact:	General
Telephone:	1850 278 278 or 01 707 2828

4.3 TELECOMMUNICATIONS:

Location:	Main Office
Authority/Body to Consult:	EIR
Telephone:	1800 400 200

Notes on procedures: The PSCS must ensure that all excavations regarding the site take care of any such services that may arise in the future.

The following documentation is available (upon request or has been included within the relevant construction contracts) which is relevant to the wind farm construction. There may be additional information on specialist items and if in doubt, please ask;

- Site Layout Drawing
- Site Location Drawing
- Underground Cable Layout Drawing
- WTG Transport Survey Report
- Geotechnical Investigations
- Report on site gradients

-
- Planning Permissions and Planning Conditions
 - Environmental Impact Assessments and Statements
 - Road Opening Licence and Conditions
 - Substation Drawings
 - Overall Project Programme (to be finalised closer to construction)
 - Resistivity testing from the substation location
 - Preliminary SLD
 - Flood Risk Assessment

Ionic Consulting Ltd., acting as PSDP, has copies of existing records available for the site and each Contractor will be issued separately with the applicable documents. It is requested that all Contractors will act within best construction practice and independently verify with utilities/ state bodies/ service providers etc. for the presence of existing hazards on the site that may directly affect their proposed works.

5.0 RESPONSIBILITIES

Different levels and degrees of Health and Safety responsibility exist with each person either working or visiting this site in an attempt to ensure the effective Management of Health and Safety. This begins with the design of the windfarm and runs right through to the completion and must be effective from Management, through each organisational level to the employees.

All contractors must comply, as a minimum, with the Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2012 (S.I. No.445 of 2012), Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013), Safety Health & Welfare at Work Act 2005, Codes of Practice and other Technical Standards.

In addition, obligations referenced in the above listed documents, all Contractors must:

- Provide a project specific Safety Health & Environmental Policy detailing the project specific risks and the control measures that they intend to apply;
- The PSCS shall provide a Site-Specific H&S Plan for the Works and shall take account of information contained in the Preliminary Health and Safety Plan issued by the PSDP;
- Liaise and co-operate with the PSDP when executing all design elements of the contract;
- Liaise and co-operate with the PSCS by providing all site-specific documentation for integration into the Safety & Health Plan;
- Review all available existing documentation.
- During the construction phase of the project the PSCS must provide a site induction to all staff and visitors attending the site and outline the site-specific risks associated onsite. This will either be available online (www.enercoenergy.ie) or by completing a paper copy. Safepass and CSCS cards must be uploaded or a copy taken for operatives to be allowed access onto the site and to carry out works.

5.1 PROJECT SUPERVISOR CONSTRUCTION STAGE (P.S.C.S.): MCE LTD.

During the construction stage the Project Supervisor Construction Stage (P.S.C.S.) shall have responsibility for the following on site:

- Preparation and updating of this Health and Safety Plan as is required under Regulation 16, (SI 291), 2013.
- If more than one contractor is involved the PCSC is responsible for procuring information for the Safety File (Reg 21, S.I. 291, 2013).

-
- Make arrangements, for emergency facilities on site.
 - Monitor compliance with the safety and health plan as well as generally accepted Health and Safety principles. This includes obtaining outside assistance and consultancy when necessary.
 - Ensure training and information is given and received by all personnel on site who require it and that adequate records are kept.
 - Arrange for effective communication between all parties/ other contractors on site.
 - Display on site a copy of Form AF 2 Notification of Construction Site and notify the Health and Safety Authority, with this form, prior to the commencement of work.
 - All accidents, whether reportable or not, will be recorded on the relevant Accident Report form.
 - Ensure Statutory Inspections are carried out and adequate records are kept e.g. weekly audits of scaffolding are completed on form GA3, weekly audits of excavations are completed on form AF 3 etc, or as often as is necessary.
 - Ensure that any Scaffolding is only erected & dismantled by competent, trained scaffolders.
 - Ensure that all employees coming on site have attained their SAFE PASS training card, as per requirements of Schedule 4, (SI 291), 2013, “Safety Awareness Scheme”.
 - Ensure that all plant and machinery operators have attained the necessary training, as per requirements of Schedule 5, “Construction Skills Certification Scheme”.
 - Assist workers on site with the designation of a Safety Representative if there are more than 20 persons working on the site, as per Regulation 23 and carry out the selection in conjunction with Schedule 6 of (SI 291), 2013, procedures for selection of site Safety Representative.
 - He shall record any accidents occurring on site and report these to the Health and Safety Authority where necessary.
 - Receive, accept and act upon any reasonably practicable suggestions made by employees or others and communicate back results.

5.2 HEALTH AND SAFETY CO-ORDINATOR: CHRIS MURNANE

The Health and Safety Co-ordinator shall attend the meetings as per the different parties as may be necessary on site. Safety shall assume a top priority at the regular site meetings. He shall keep records / minutes of these meetings. Items of discussion shall include:

- Changes on site / to work, levels of compliance, Accident Records, Audit reports,

-
- Inspection of sub-contractors Safety Statements etc.
 - He shall be available to the PSCS for any advice and information as may help to secure safety and health on site.
 - He shall inspect on a regular basis, as agreed and as necessary, the site and works from the point of view of securing Health and Safety.
 - He shall deal with, in the appropriate manner, any acts or omissions, which may subject personnel on site to danger or to Disciplinary Procedure.
 - He shall inspect the Safety File prior to delivery to the PSDP at the completion of the job.

5.3 SITE ENGINEER: SEAN O'DRISCOLL / CHRIS O'MAHONY/ GEOFFREY SHERIDAN

The Site Engineer shall liaise between the site workings, the PSCS and the Health and Safety Co-ordinator and therefore carries part of the Management Function in his dealings with employees and contractors.

- He shall make records of any accidents on site.
- He shall inspect on a continual basis, during normal work routine, the site and works from the point of view of securing Health and Safety.
- He shall deal with, in the appropriate manner, any acts or omissions, which may subject personnel on site to the Disciplinary Procedure.
- He shall ensure that all staff working on site shall attend a Safety Induction session prior to working on the site. This shall be prepared in conjunction with the Health & Safety Coordinator.
- He shall ensure that the necessary personal protective equipment (PPE) is worn at all times.
- He shall complete any necessary Method Statements as may be required, for specific high-risk activities as the work proceeds.

5.4 EMPLOYEES RESPONSIBILITIES / DUTIES

All Company employees are expected to co-operate fully with all provisions taken by the firm for ensuring the Safety, Health and Welfare of employees. All employees are expected to:

-
- Immediately report all accidents, dangerous occurrences, unsafe conditions and unsafe acts to the Site Foreman, PSCS or Health and Safety Co-Ordinator.
 - Adhere to all safe systems of work, adhere to and beware of hazard warning signs and safety signs, which indicate dangerous machinery, substances or procedures.
 - Wear or use personal protective equipment or safety equipment provided and report the need to repair / replace items of personal protective equipment. If P.P.E is damaged or malfunctioning it must be clearly marked and segregated from all other P.P.E and brought to the attention of the site management as soon as possible.
 - Carry out their work in a safe manner so as to avoid injury to themselves, other employees, client employees, and the general public and avoid damage to Company or Client equipment and property.
 - Immediately report damage to plant and equipment and the need to repair or replace any such items as may render the workplace unsafe.
 - Always carry out your work duties according to the relevant training you have received, if applicable.

All employees have specific statutory responsibilities under the *Safety, Health and Welfare At Work Act, 2005, Sections 13 & 14*. This legislation is as follows:

1. It shall be the duty of every employee while at work:

- To take reasonable care of his/her own safety, health and welfare and that of any other person who may be affected by his acts or omissions while at work.
- To co-operate with his/her employer and any other person to such extent as will enable his/her employer to comply with any of the relevant statutory provisions.
- To use in such a manner so as to provide the protection intended, any suitable appliance; protective clothing; convenience; equipment or other means or thing provided (whether for his/her use alone or for use by him/her in common with others) for securing his safety, health or welfare while at work and
- To report to his/her employer or his/her immediate Supervisor without unreasonable delay, any defects in plant, equipment, place of work or system of work, which might endanger safety, health or welfare of which he becomes aware.

2. No person shall intentionally or recklessly interfere with or misuse any appliance, protective clothing, convenience, equipment or other means or thing provided in pursuance of any of the relevant statutory provisions or otherwise for securing the safety, health or welfare of persons arising out of work activities.

Other statutory employee responsibilities are as laid down by Safety Health & Welfare at Work Act 2005, Section 13 and 14.

These state that every employee has a duty to take into account training and instruction given by his employer in relation to:

- A. Making correct use of machinery, apparatus, tools, dangerous substances, transport, equipment and other means of production.
- B. Where personal protective equipment is provided that the employee
 - Should make full and proper use of this.
 - Uses it in accordance with the information, instruction and training provided by the employer.
 - Take all reasonable steps to ensure that this equipment is returned to storage after its use by the employee.

6.0 CONSULTATION ON SITE.

The general method on consultation on site will be the following outline.

1. **Employees**

Foreman/ Site Manager: Sean O'Driscoll / Chris O'Mahony
Project Supervisor Construction Stage
Health and Safety Co-ordinator

2. **Contractors (and/or their employees)**

Foreman/ Site Manager: Sean O'Driscoll / Chris O'Mahony
Project Supervisor Construction Stage
Health and Safety Co-ordinator

Any problems or queries involving safety on site between any parties onsite may raise the issue with one of the MCE site representative and if they are still not satisfied they can contact Chris Murnane 086-7955083.

6.1 COMMUNICATION OF HEALTH AND SAFETY ON SITE.

The proposed development comprises many different activities as outlined. The PSCS shall, therefore, ensure that any liaison with other contractors, landowners, local authorities, representatives of the state, environmental stake holders (NPWS, Inland Fisheries Ireland etc.) are carried out in a manner that does not inhibit the progress of the project, and will direct any of the aforementioned parties to the PSDP.

The PSCS shall hold regular briefings on-site to discuss coordination between all parties at the site and ensure that all hazards or risks are identified and that the appropriate control measures are being correctly applied. Regular progress meetings will take place between the P.S.C.S. and other parties including the Clients representatives. These shall be to review progress on the contract and discuss upcoming developments, which may influence the Health and Safety of personnel on site. The P.S.C.S. will arrange these, in conjunction with the Health & Safety Coordinator and keep records of these meetings on file.

The PSCS shall co-ordinate with all contractors to ensure appropriate communication between all parties at the site and ensure that all hazards or risks are identified and that the appropriate control

measures are being correctly applied. Before any works commence on site the appropriate risk assessments and method statements shall be submitted to MCE Ltd for review. All personnel will be required to complete an induction either online (www.enercoenergy.ie) or a written form before commencing work onsite. All MCE construction sites require operatives to text in when arriving onsite and again when leaving in the evening to the operational control number +353 (0) 868032620.

Failure to comply will result in disciplinary action being taken on employees.

SAFETY REPRESENTATIVE

As per the Construction Regulations of 2013, the PSCS shall make arrangements to allow employees select a Safety representative for the site, as per Regulation 23 and Schedule 5 if required.

7.0 HEALTH AND SAFETY CO-ORDINATOR

The PSCS role is under the control of MCE Ltd. with Chris Murnane being the site representatives for H&S. MCE the site controller shall review the Construction Stage Safety Plan and any relevant plans, reports or accident records which have been documented.

They shall carry out site inspections as agreed or as necessary. Chris Murnane will be available to advise the P.S.C.S. with any matters affecting Health and Safety on this site. The Health and Safety Co-ordinator will also arrange site safety meetings, Toolbox Talks and training for employees, if and whenever necessary.

Progress to date shall be reviewed and any items planned, which are likely to influence site Health & Safety will be discussed, in so far as is reasonably practicable, in advance of the work.

8.0 EMERGENCY ARRANGEMENTS, ACCIDENT REPORTING & WELFARE ON SITE

8.1 FIRST AID

For the purposes of providing effective treatment in the event of an emergency on site, arrangements shall be made to have injuries treated by the local G.P or Hospital. First-Aid equipment is kept in the site compound and Sean O'Driscoll and Chris O'Mahony are trained occupational first aiders.

8.2 ACCIDENT RECORDING, REPORTING & INVESTIGATION

MCE Ltd. staff who are required to work at different project locations are required to complete a site induction at each site and to sign all the relevant risk assessments and method statements before commencing work. They must follow the site safety procedures as outlined by the management at the site and must notify their MCE supervisor if they have any queries or concerns.

All employees and sub-contractors are obliged to carry out a site induction for each site during their first visit and cannot wait on management to seek this. Employees and sub-contractors are required to take ownership of their own safety and ensure they satisfy all site requirements.

8.2.1 RECORDING, REPORTING & INVESTIGATION

MCE Ltd. is aware that there is a legal onus upon it to record and investigate all accidents, incidents and dangerous occurrences under the Safety, Health and Welfare at Work (Reporting of Accidents & Dangerous Occurrences) Regulations 2016. MCE Ltd. stimulus to do this properly is knowing that if we put the information, which we collect to good use, we can reduce or maybe even eliminate the risk of such occurrences happening again.

Completed Accident Report Form I.R.1 will be returned to the Health and Safety Authority where a person is out of work for more than three consecutive days following the accident. Where a fatality occurs, this must be reported to the Health and Safety Authority immediately. This site responsibility for this recording and investigating process is that of Christopher Murnane who will organise such reporting and recording.

- ✓ All accidents and dangerous occurrences shall be recorded on the Accident Report Sheet.

-
- ✓ Accidents must be recorded and investigated as soon as possible after the accident.
 - ✓ Preserve the area of the incident immediately until the investigation is completed.
 - ✓ All accidents must be reported to Christopher Murnane or your supervisor immediately, who must investigate them.
 - ✓ Reporting of accidents and dangerous occurrences is a duty of every employee.

8.2.2 PROCEDURE IN CASE OF ACCIDENTS, DANGEROUS OCCURRENCES OR NEAR MISS INCIDENTS

1. Clear the area of the occurrence immediately. If necessary, cordon off that area.
2. Preserve the area of the incident immediately until the investigation is completed.
3. Chris Murnane must be informed immediately or another supervisor if he is not available.
4. An investigation must take place into the cause of the occurrence to identify the factors involved.
5. In this way, the problems may be identified and remedied before any further risk is taken.
6. No work should proceed until Chris Murnane or another supervisor if he is not available is satisfied that it is safe to return to work.

Where damage to property has occurred, no employee should enter the area until this has been rectified, investigations have been completed and the property or equipment have been repaired or replaced.

DANGEROUS OCCURRENCE ONLY:

All recording should be carried out on the Form of Notice of Dangerous Occurrences, Form I.R.3, and a copy sent to the Health and Safety Authority.

8.2.3 FOR SERIOUS INJURY OR COLLAPSE

When calling the ambulance, have someone else call as you attend to the injured party or else to use a mobile phone if possible. This allows you to speak to the operator when you are with the injured person and they can give you advice, ask questions and help you as much as possible until the ambulance arrives.

The information you pass on to the operator will be passed onto the ambulance crew and may assist them when they arrive at the scene. Where damage to property has occurred, no employee should

enter the area until this has been rectified, investigations have been completed and the property or equipment has been repaired or replaced.

When an accident occurs, you must ensure that the place is made safe before touching the injured person or the machinery involved. Always isolate electricity when electrical shock is suspected. Do not move the casualty unless they are in immediate danger of further injury or they can move themselves. If any personnel on site cannot treat the injury, a Doctor or the Ambulance Services must be called. If the injured person can be transported, then he may be taken to a Doctor or the local Hospital. If a chemical agent is involved in the injury, always take the relevant Material Safety Data Sheet or container and label, with the injured person, as this can be very helpful in treating the injury. When the Emergency Services arrive or when you arrive at a Hospital, you must give a clear and exact account of what has happened to the medical personnel receiving the injured person.

The golden rule to adopt is - **NEVER PLACE YOURSELF IN DANGER WHILST TRYING TO HELP SOMEONE ELSE**, especially if you are unsure of what you are doing. You do not want to become the second casualty.

8.2.4 ACCIDENT REPORT

The site of the accident or incident must be preserved until the Accident Report has been written. This should be carried out as soon as possible after the accident, the priority being of course the injured person. Take photographs of the accident scene as soon as possible. These will provide vital information later when the area has been disturbed.

Its purpose is to help identify the cause with the aim of preventing a recurrence as well as keeping MCE Ltd. records. Any accident or incident which leads to more than 3 consecutive days absence for the injured party, must be reported to the HSA using form **IR1**. Dangerous Occurrences must be notified to the HSA using form **IR3**.

8.3 WELFARE

Welfare facilities will be available on site with hot water and hand sanitizer provided in the site compound. All users of these are responsible for their cleanliness.

8.4 FIRE ARRANGEMENTS.

These will be as standard protocol for such a site, taking account of the type of the nature of the site as well as any flammable items, which are in use and stored on site. If work moves indoors, a system of fire extinguishers will be provided within. The firm will also provide fire extinguishers and a fire blanket where required.

8.5 CANTEEN FACILITIES

These will be provided for all workers on this project and are located at the site office.

8.6 CORONAVIRUS – COVID-19

COVID-19 is a respiratory illness caused by a novel coronavirus (SARS coronavirus-2 (SARS-CoV-2)) that can affect the lungs and airways. Symptoms include a fever, cough, shortness of breath, breathing difficulties, Muscle Pain and Tiredness.

8.6.1 COVID-19 CHARACTERISTICS

Symptoms of Coronavirus:

It can take up to 14 days for symptoms of coronavirus to appear.

The main symptoms to look out for are:

- A cough - this can be any kind of cough, not just dry
- Shortness of breath
- Breathing difficulties
- Fever (high temperature - 38 degrees Celsius or above) or chills

If you develop symptoms you will need to self-isolate and phone your GP. Do not go to a GP surgery, pharmacy, or hospital. The GP will assess you over the phone. If they think you need to be tested for coronavirus, they will arrange a test. Inform your site foreman or your Covid-19 Compliance Officer Chris O'Mahony and ensure MCE site management are informed.

Spread:

Coronavirus is spread in sneeze or cough droplets. To infect you, it must get from an infected person's nose or mouth into your eyes, nose, or mouth. It is important to wash your hands properly and often.

Travel and Coronavirus:

You will need to restrict your movements if you return to Ireland from any country.

You should also follow the advice from the Department of Foreign affairs if you are thinking about travelling abroad. Discuss with your Covid-19 Compliance Officer and ensure MCE site management are informed.

Restricted movements and self-isolation

To stop the spread of coronavirus (COVID-19) you will need to either restrict your movements or self-isolate.

Restricted movements mean avoiding contact with other people and social situations as much as possible. It is sometimes referred to as self-quarantine. You need to restrict your movements if you do not have symptoms of coronavirus, but you are:

- A close contact of a confirmed case of coronavirus
- Returning to Ireland from another country

Self-isolation means staying indoors and completely avoiding contact with other people. You will need to do this if you have symptoms of coronavirus. You will need to self-isolate:

- If you have symptoms of coronavirus
- Before you get tested for coronavirus
- While you wait for test results
- If you have had a positive test result for coronavirus

Treatment for Coronavirus

There is no specific treatment for coronavirus. But many of the symptoms of the virus can be treated. Drink plenty of water. Paracetamol or ibuprofen may help with symptoms such as pain or fever. Paracetamol is usually recommended as the first-line treatment for most people. Before taking any medication, you should read the full package leaflet that comes with your medicine. You should also follow any advice a healthcare professional gives you.

If you get the virus, your healthcare professional will advise treatment based on your symptoms.

Antibiotics do not work against coronavirus or any viruses. Supportive treatments, like oxygen therapy, can be given while your own body fights the virus. Life support can be used in extreme cases.



Coronavirus COVID-19

Coronavirus COVID-19 Public Health Advice

If you have fever and/or cough you should stay at home regardless of your travel or contact history.

If you have returned from an area that is subject to travel restrictions due to COVID-19 you should restrict your movement for 14 days. Check the list of affected areas on www.dfa.ie

All people are advised to:

- > **Reduce** social interactions
- > **Keep a distance** of 2m between you and other people
- > **Do not** shake hands or make close contact where possible

If you have symptoms visit hse.ie OR phone HSE Live **1850 24 1850**

How to Prevent

Stop
shaking hands or hugging when saying hello or greeting other people

Distance
yourself at least 2 metres (6 feet) away from other people, especially those who might be unwell

Wash
your hands well and often to avoid contamination

Cover
your mouth and nose with a tissue or sleeve when coughing or sneezing and discard used tissue

Avoid
touching eyes, nose, or mouth with unwashed hands

Clean
and disinfect frequently touched objects and surfaces

Symptoms

- > Fever (High Temperature)
- > A Cough
- > Shortness of Breath
- > Breathing Difficulties

For Daily Updates Visit
www.gov.ie/health-covid-19
www.tao.ie

Ireland is operating a de-list strategy in line with WHO and ECDC advice

  **Rialtas na hÉireann**
Government of Ireland

8.6.2 COVID CONTROL MEASURES

Construction Industry Federation (CIF) Online C19 Induction

The CIF online C-19 induction program is designed to protect workers and their families and communities. Work should only happen where it is safe to do so. This induction will help you work safely. If in doubt, consult your Covid-19 Compliance officer, Health and Safety Officer or site management. Informed personal responsibility is critical and MCE are depending on you to adopt these guidelines and to be vigilant on site about others on site.

The CIF online C-19 induction purpose is to ensure that everyone working on a construction project understands how to prevent the spread of COVID-19 in the workplace. When you complete the induction, you will receive a digital card, on your phone, confirming that you have successfully

completed the programme. This is mandatory before accessing the Meenbog Wind Farm construction site.

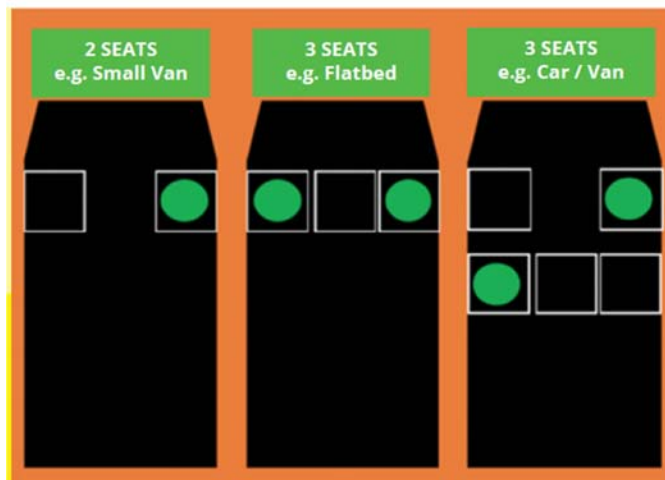
Travel to / from Work

Due to Covid-19 restrictions, MCE advise all personnel working on the Meenbog Windfarm project to bring all food from home and to avoid calling to shops other than those within 2km or those nearest there home.

Where a worker exhibits any signs of COVID-19 or has been exposed to a confirmed case, they should not travel to work. Wherever possible, workers should travel to site alone using their company vehicle or their own means of transport. Social distancing is advised when travelling in vehicles to/from work and when in site vehicles and operating mobile plant. Suggested arrangements are as follows:

- Single occupancy of vehicles is preferable.
- Sit as far apart as the vehicle allows.

RECOMMENDED MAXIMUM ROAD VEHICLE OCCUPANCY



Control Measures for Vehicle Use

Workers should not enter a work vehicle with others if they have any symptoms or have had contact with a confirmed case of COVID-19.

General guidance for minimising the potential transmission of COVID-19 are:

- Personnel to use personal transport to reduce numbers travelling in work vehicles.
- It is advisable to limit the “churn” of people travelling together. MCE try to ensure the same crew members travel and work together day after day, day after day.
- When entering (and leaving) all vehicles the driver should clean all common areas that are liable to be touched including the external door handles, keys and other internal furnishings.
- Keep windows at least partially open.

- Keep personal items (PPE, clothes, lunch boxes etc.) separate.
- Wiping/cleaning down of contact points should be done using antibacterial wipes or a wet cloth with soap application, or equivalent.
- Dispose of used wipes/cleaning materials in a designated bin/sealed bag and wash hands for at least 20 seconds.
- Carry hand sanitiser (at least 60% alcohol) and use it regularly.

Tools, Equipment and Plant

- All tools and equipment should be properly sanitised to prevent cross contamination.
- Arrangements for one individual to use the same tool, equipment and plant as much as possible. Available cleaning material is provided and supplied by each Employees Employer, for all tools to be wiped down with disinfectant between each user. Work practices will be organised to reduce eliminate or reduce transmission points and coach site personnel on the same.
- Cabs and touch points of site vehicles and plant (MEWPS, Excavators, Cranes, etc.) to be thoroughly cleaned and a cleaning regime by plant operatives should be maintained daily thereafter.

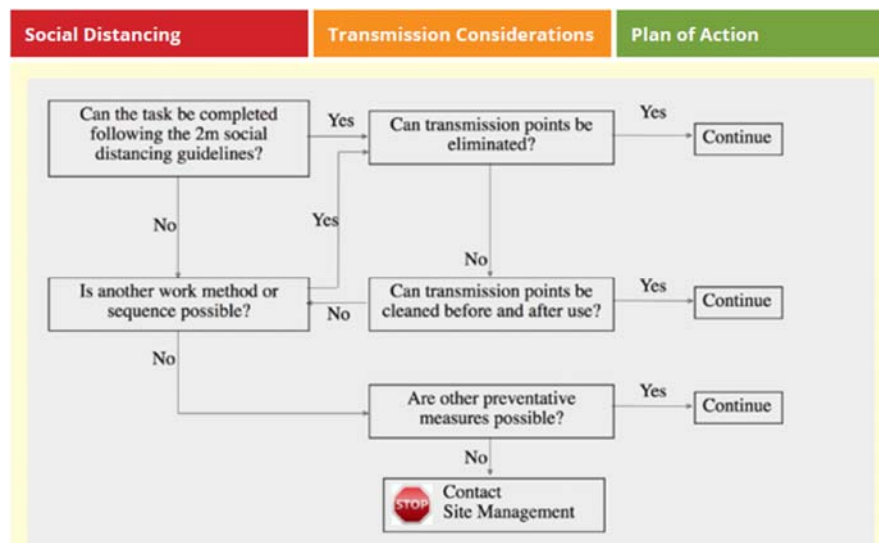
**CONTACT POINTS
WITHIN A MINI DIGGER**



Social Distancing

Social distancing, or physical distancing, is a set of interventions or measures taken to prevent the spread of a COVID-19 by maintaining a physical distance between people and reducing the number of times people come into close contact with each other. In order to slow the transmission rate of COVID-19, a social distancing of minimum 2m is recommended by the HSE.

The flow chart below is provided by the CIF to assist in the review of work processes with social distancing in mind.



8.6.3 COVID-19 COMPLIANCE OFFICER

Role of a C-19 Compliance Officer – Chris O’Mahony:

- The role of a C-19 Compliance Officer is to monitor day to the site activities to ensure social distancing and hygiene rules are being maintained to protect health and reduce the spread of the C-19 virus.
- Ensuring compliance to the 2m social distancing rule and good hygiene is not the sole responsibility of the C-19 Compliance Officer. Their role is supported by all site management and workers.
- Site Management must communicate to all onsite details of the appointed C-19 Compliance Officer.
- A C-19 Compliance Officer must not put themselves at risk while carrying out their duties.
- C-19 Compliance Officers will have a structure or framework to follow within the organisation to be effective in preventing the spread of COVID-19. This structure will be regularly audited and managed to ensure it works and protects all onsite. Failure to take it seriously could result in an outbreak of COVID-19 onsite.

Responsibilities of a C-19 Compliance Officer

C-19 Compliance Officer's responsibilities and duties fall broadly into 2 categories:

1. Proactive day to day duties
2. Reactive emergency duties

1. Proactive day to day duties of a C-19 Compliance Officer

- Ensure personnel onsite complete relevant COVID-19 Questionnaires / Declarations.
- Being a constant onsite presence to monitor compliance with social distancing of 2 metres between all personnel onsite (with the exception of planned close working). In instances where there is non-conformance with social distancing the C-19 Compliance Officer is to intervene.
- Maintain a log of regular monitoring of COVID-19 controls on site.
- Ensure there is sufficient up to date signage erected onsite to educate all personnel about the COVID-19 controls on site.
- At all times promote and coach good hygiene practises to all personnel onsite.
- Ensure regular cleaning of welfare facilities, handrails, door handles, etc. is undertaken.
- Ensure hand wash liquid/soap and hand sanitisers are replenished as required.
- Check hot water and hand drying facilities are available onsite.
- Make representations to site management with regards any COVID-19 concerns raised by site personnel to the C-19 Compliance Officer.
- Ensure site personnel are adhering to staggered break time schedules and limiting numbers in canteens, drying rooms and smoking areas cognisant of the 2-metre social distancing guideline.
- Ensure site personnel leaving site at designated breaks remove their site PPE and continue to adhere to social distancing guidelines.
- Report any areas of non-compliance to site management and ensure these are addressed.
- Consider provision of additional controls for exceptional circumstances
- Keep up to date on HSE guidelines.

2. Reactive C-19 Compliance Officer duties

While the main role of the C-19 Compliance Officer is to prevent the spread of COVID-19 onsite, there is the potential where an individual onsite may experience COVID-19 symptoms and where the C-19 Compliance Officer needs to react. In a reactive position, their responsibilities include:

-
- Informing site management if there is a confirmed case or if they have been made aware of an individual with COVID-19 symptoms.
 - Isolating an individual with symptoms in an isolation room/segregated area away from other personnel.
 - Following site protocol for individuals with COVID-19 symptoms. (i.e. send home, inform them to contact GP).
 - Assisting in contact tracing should there be a confirmed case of COVID-19.

8.6.4 COMMUNAL AND WELFARE FACILITIES

Office arrangements

- Personnel working in site offices should be dispersed so there is always a social distance of 2m.
- No non-essential visitors should attend the office areas.
- I.T software should be used to support online meetings both in and out of the office.
- Keep workstation surfaces clear and wipe with disinfectant regularly.
- Hand sanitizers should be made available at main entry and exit points.
- Keep main doors open where possible to reduce persons touching door handles etc.
- It is the responsibility of all office staff to clean the office areas including a wipe down with disinfectant on door handles, stair rails etc. at regular intervals throughout the day.

Toilet Facilities

- The number of people using toilet facilities at any one time should be restricted. Ensure there is a social distance of 2m maintained while using the toilet facility.
- Implement appropriate COVID-19 hygiene regime.
- All soap and hand washing pictorial guides will be provided for washing hands in a clear and visual form, manner, and language so everyone can understand.
- It is the responsibility of all site staff to clean the toilet facilities, including a wipe down with disinfectant on door handles, locks and door handles at regular intervals throughout the day.
- Sufficient rubbish bins for hand towels will be provided with regular removal and disposal.

Drying Rooms

The following measures to ensure a social distancing of 2m.

-
- It is the responsibility of all site staff to clean the facilities after use, including a wipe down with disinfectant on door handles, locks and door handles at regular intervals throughout the day.
 - A limit on how many people can use it at any one time to maintain a distance of 2 metres.
 - Sufficient rubbish bins for hand towels will be provided with regular removal and disposal.
 - 2-metre social distancing areas will be marked out.
 - No unnecessary personal belongings will be permitted to be stored in the drying room.

Canteens and Eating Arrangements

The following measures will be adhered to ensure social distancing is adhered to:

- All workers attending site canteens should bring a packed lunch and flask to help eliminate transmission points on microwaves and water pour points etc.
- Break times will be staggered to reduce congestion and contact.
- Site personnel must wash their hands before eating.
- Hand cleaning facilities or hand sanitiser will be available at the entrance and exit of any room where people eat and should be used by all personnel when entering and leaving the area.
- A seating arrangement where workers sit 2metres apart from each other whilst eating will be put in place to avoid all physical contact with co-workers..
- It is the responsibility of all site staff to clean the facilities after use, including a wipe down with disinfectant on door handles, tables, chairs, and all canteen utensils.
- Sufficient rubbish bins will be provided for disposal of any rubbish with regular removal and disposal.

9.0 DISCIPLINARY PROCEDURE

Employees are always expected to abide by recognised safe working practises and procedures whilst on this site. Please refer to the full text of the Safety Statement.

For example:

All forms of Personal Protective Equipment (PPE), which are required and provided, should be used and worn; machinery guarding should be situated where necessary and must not be interfered with. Horseplay will not be tolerated, and any other means, thing or equipment used or intended, by the contractor for the purpose of securing Health and Safety must be used for this purpose and not interfered with.

Any breaches of these guidelines as well as other recognised / accepted guidelines and principals, may subject employees to: -

1. Verbal Warning.
2. Written Warning.
3. Suspension from site without pay. Duration of suspension is dependent on seriousness of breach. This may include permanent dismissal.



FULL DETAILS ARE AVAILABLE IN THE MCE COMPANY SAFETY STATEMENT.

10.0 SAFETY FILE

The Safety File (as cited under *Regulation 21, (SI 291), 2013*) shall have information procured for it and added to it by the P.S.C.S. This will be updated to include changes as they occur. Input will be sought from sub-contractors as to the work involvement at various stages and at completion.



When the project has concluded, the Safety File will be prepared and handed back to the PSDP. This will have been finalised in Consultation with each sub-contractor involved in the project and the other parties who may have an input into this Safety File, including the Health & Safety Coordinator.

1. P.S.D.P.
2. P.S.C.S.
3. Health and Safety Co-Ordinator
4. Architect
5. Quantity Surveyor
6. Electrical & Mechanical Contractors
7. Contractors and key material suppliers.
8. etc.

11.0 EMERGENCY PROCEDURE

- Dial 999/112 and ask for the service you require:
AMBULANCE / DOCTOR
GARDAI
FIRE BRIGADE
- Give Clear and Precise Information About The Incident,
- Number of People Requiring Help, Etc.
- Give The Exact Address And Contact Telephone Number:
- Do Not Hang Up Until The Operator Has Repeated The Information Back To You.

MEENBOG SUBSTATION & CABLE ROUTE

 Emergency Contact List 	
	Phone Number
Donegal Community Hospital	074-9740600
Letterkenny University Hospital	074-9125888
NowDoc Letterkenny	1850 400 911
Ambulance	999 / 112
Ballybofey Garda Station	074-9137740
Fire Service	999
Health and Safety Officer	086-7955083
MCE Operational Controller (Please Text)	086-8032620

Directions to Donegal Community Hospital

- From site, turn left onto N15. Continue straight for approx. 14.4km.
- At the roundabout, take the 2nd exit into the R267.
- Continue straight for approx. 1km, then turn right and then immediately left.

Directions to Letterkenny University Hospital

- From site, turn right onto N15. Continue straight for approx. 12km.
- Turn left onto Meetinghouse St/N13.
- Continue straight for approx. 3.8km. Turn left to stay on the N13.

- Continue straight for approx. 13km.
- At the Dry Arc roundabout, take the 1st exit onto N14/N56
- Continue for 1.4km. At the next roundabout, take the 2nd exit onto Port Rd/N14.
- Continue for another 1km. At Station roundabout, take the 3rd exit onto Ramelton Rd.
- At the next roundabout, take the 1st exit onto De Valera Rd.
- Continue straight for approx. 500m. At the roundabout, take the 3rd exit onto Kilmacrennan Rd.

12.0 PARTICULAR RISKS TO THE SAFETY AND HEALTH OF PERSONS AT WORK

The following is a non-exhaustive list of particular risks to the safety and health of persons at work as set out in the First Schedule of S.I. 291 2013.	Are these issues relevant to this site?	
	YES	NO
1. Works which would put persons at work at risk of burial under earth falls, engulfment in swampland or falling from a height, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or construction site.	√	
2. Work which puts persons at work at risk from chemical or biological substances constituting a particular danger to the safety and health of such persons or involving a legal requirement for health monitoring.		√
3. Work with ionising radiation requiring the designation of controlled or supervised areas as defined in Directive 96/29 Eurotom.		√
4. Work near high voltage power lines.	√	
5. Work exposing persons at work to the risk of drowning.	√	
6. Work on wells, underground earthwork and tunnels.	√	
7. Work carried out by divers at work having a system of air supply.		√
8. Work carried out in a caisson with a compressed-air atmosphere		√
9. Work involving the use of explosives		√
10. Work involving the assembly or dismantling of heavy prefabricated components		√

These items shall be noted in our risk assessment as applicable and specific to this site. It should be noted that many of the risks on the project, which may arise out of working methods, which are at the discretion of the contractor and as such cannot be determined by the Project Supervisor for Construction Stage.

Where the contractor encounters such risks a specific Method Statement will be required as a method of reducing the risk and these Method Statements shall be added to the safety file.

13.0 REQUIREMENTS TO BE APPLIED AS REGARDS THE GENERAL PRINCIPLES OF PREVENTION

B. Requirements to be Applied as Regards the General Principles of Prevention as set out in the Second Schedule of S.I. 291 2013	Are these issues relevant to this site?	
	YES	NO
1. Keeping the construction site in good order and in a satisfactory state of cleanliness	√	
2. Choosing the location of workstations bearing in mind how access to these Workplaces is obtained, and determining routes or areas for the passage and movement of equipment.	√	
3. The conditions under which various materials are handled.	√	
4. Technical maintenance, pre-commissioning checks and regular checks on installations and equipment with a view to correcting any faults, which affect the safety and health of persons at work.	√	
5. The demarcation and laying out of areas for storage of various materials, in particular where dangerous materials or substances are concerned	√	
6. The conditions under which the dangerous materials used are removed.	√	
7. The storage and disposal or removal of waste and debris	√	
8. The adaptation, based on progress made with the site, of the actual period to be allocated for the various types of work or stages of work	√	
9. Co-operation between employers and self-employed persons	√	
10. Interaction with industrial activities at the place within which or in the vicinity of which the construction site is located.	√	

These items shall be noted in our risk assessment as applicable and specific to this site.

14.0 MINIMUM SAFETY AND HEALTH REQUIREMENTS FOR CONSTRUCTION SITES

Minimum Safety and Health Requirements for Construction Sites	Are these issues relevant to this site?	
	YES	NO
1. Stability and Solidity of the site, ground and material	√	
2. Energy Distribution Installations	√	
3. Emergency Routes and Exits	√	
4. Fire Detection and Fire Fighting	√	
5. Atmospheric Influences	√	
6. Ventilation		√
7. Temperature	√	
8. Natural and Artificial Lighting of Workstations, Rooms and Traffic Routes on the Site	Yes if working in darkness	
9. Doors and Gates	√	
10. Traffic Routes – Danger Areas	√	
11. Loading Bays and Ramps		√
12. Freedom of Movement at the Workstation	√	
13. Welfare Facilities including connection to services, water, sewers etc.	√	

15.0 LIST OF VEHICLES REQUIRING AUXILIARY DEVICES AND VISUAL AIDS

as per Schedule 7, S.I. 291, 2013

MACHINE TYPE	REVERSING & VISUAL AIDS REQUIRED
Off road Dump Trucks (trailer to rear of driver), payload greater than 7 tonnes	Reversing alarm & flashing beacon with CCTV or convex mirrors or a combination of both to allow vision from the driver's seat of all points more than 1 meter high and 1 meter from the machine at each side and at rear of driver.
Dumpers (front tip) no cab	Reversing alarm and flashing beacon
Dumpers (front tip) with cab	Convex Mirrors, reversing alarm & flashing beacon
Wheel Loaders (loading shovels)	Reversing alarm & flashing beacon with CCTV or convex mirrors or a combination of both to allow vision from the driver's seat of all points more than 1 meter high and 1 meter from the machine at each side and at rear of driver.
Backhoe Loaders	Convex Mirrors; reversing alarm & flashing beacon.
All 360° Excavators	Movement alarm & flashing beacon with CCTV or convex mirrors or a combination of both to allow vision from the driver's seat (without slewing) at all points more than 1 meter high & 1 meter from the machine.
Scrapers	Reversing alarm & flashing beacon with CCTV or convex mirrors or a combination of both to allow vision from the driver's seat of all points more than 1 meter high & 1 meter from the machine at each side & at rear of driver.
All tracked type tractors (bulldozers)	Reversing alarm & flashing beacon with CCTV or convex mirrors or a combination of both to allow vision at all points more than 1 meter high & 1 meter from the machine at each side & at rear of driver.
Graders	CCTV, convex mirrors, reversing alarm & flashing beacon.
Telescopic Handlers	Reversing alarm & flashing beacon with CCTV or convex mirrors or a combination of both to allow vision from the driver's seat of all points more than 1 meter high & 1 meter from the machine at each side & at rear of driver.
Compactors/rollers without cab & seat	Reversing alarm & flashing beacon.
Compactors/rollers with cab & seat to rear.	Convex mirrors, reversing alarm & flashing beacon.
All compactors/rollers	Reversing alarm & flashing beacon with CCTV or convex mirrors, or a combination of both, to allow vision at all points more than 1 meter high & 1 meter from the machine at each side & at rear of driver.
Road Planer	Convex mirrors, reversing alarm & flashing beacon.
Road Pavers	Convex mirrors, reversing alarm & flashing beacon.

16.0 CONSTRUCTION SKILLS CERTIFICATION SCHEME (SOLAS)

Construction Regulations 2013, S.I. No. 291, Schedule 5 Regulations 2, 19, 25, 29 74 & 97

The following training courses are now applicable:

- (a) Scaffolding — basic;
- (b) Scaffolding — advanced;
- (c) Mobile tower scaffold — where the employee has not been trained in the task referred to at *clauses (a) or (b)*;
- (d) Tower crane operation;
- (e) Self erecting tower crane operation — where the employee has not been trained in the task referred to at *clause (d)*;
- (f) Slinging/signalling;
- (g) Telescopic handler operation;
- (h) Tractor/dozer operation;
- (i) Mobile crane operation;
- (j) Crawler crane operation;
- (k) Articulated dumper operation;
- (l) Site dumper operation;
- (m) 180° excavator operation;
- (n) Mini-digger operation — where the employee has not been trained in the task specified in *clause (o)*;
- (o) 360° excavator operation;
- (p) Roof and wall cladding/sheeting;
- (q) Built-up roof felting;
- (r) Signing, lighting and guarding on roads;
- (s) Locating under-ground services;
- (t) Shotfiring;

All construction workers undertaking these tasks will be required to be in possession of a valid CSCS Card for that skill.

Safe Pass equivalent safety awareness schemes - Schedule 3 of the Safety Health and Welfare at work (Construction) Regulations 2013 provides for the recognition of equivalent safety awareness schemes approved by FÁS (SOLAS). With this in mind the Construction Skills Register (CSR Northern Ireland) one day health and safety course is the only course recognized as equivalent to the FÁS (SOLAS) Safe Pass course. Any person wishing to avail of this recognition must be in possession of a current CSR Health and Safety card

17.0 APPENDIX

17.1 PROJECT DIRECTORY

1. Project Client

Name:	Planree Ltd.
Address:	Lissarda Business Park, Lissarda, Cork.
Telephone:	+353 (0) 217336034
Contact:	Stephen O'Connor
Email:	stephen.oconnor@turnkeydev.com

2. PSCS for Construction Phase

Name:	MCE Ltd.
Address:	Lissarda Business Park, Lissarda, Cork.
Telephone:	+353 (0) 217336034 +353 (0) 868528329
Contact:	Sean O'Driscoll
Email:	sean.odriscoll2@gmail.com

3. Turbine Operator

Name:	Nordex Energy Ireland Ltd
Address:	Suite 4, Edgerton House, Towers Business Park, Wilmslow Road, Didsbury, M29 2DX
Telephone:	+353 868590614 +44 161 445 9900

4. Electrical & HV Contractor for Croaghonagh 110kV Substation

Name:	H&MV
Address:	Unit 35 McLoughlin Road, Castletroy, National Technology Park Co. Limerick
Telephone:	+353 (0) 87 737 8573
Contact:	Colin McCabe
	Colin.mccabe@hmveng.ie

5. Civil Contractor

Name:	MCE Ltd.
Address:	Lissarda Business Park, Lissarda, Cork.
Telephone:	+353 (0) 21 7336034 +353 (0) 86 8528329
Contact:	Sean ODriscoll
	sean.odriscoll@turnkeydev.com

6. Consultant Engineer

Name:	Ionic Consulting
Address:	The Hyde Building, The Park, Dublin 18. D18VC44
Telephone:	+353 (0) 1 8458442
Contact:	Clare Looney
	Claire.looney@ionicconsulting.ie

7. Windfarm Operator

Name:	WFSO Ltd.
Address:	Lissarda Industrial Estate, Lissarda, Cork, Ireland.
Telephone:	+353 (0) 21 7336034
Contact:	David Egan
	david.egan@turnkeydev.com

17.2 CONSTRUCTION PHASE SITE RULES

(A) Personnel Identification & Safety Induction

All personnel must attend site induction, signing on completion that they understand the site rules and will abide by them. Where possible all operatives are to complete an induction before they come to site so that they are emailed a copy of the following;

- Meenbog Site Layout
- Meenbog Emergency Plan
- Catastrophic Event Flowchart

(B) Personal Protective Equipment

It is a mandatory requirement for all construction and maintenance personnel and their visitors including vendors and truck drivers to wear the following protective equipment at all times on site:

- **Safety Boots**
- **Hi-Visibility Vests**
- **Hard Hats**
- **Gloves**

For certain specific tasks personnel will also be required to additional PPE such as eye/hearing protection, personal fall arrest equipment and respiratory protection.

(C) Smoking

SMOKING is not permitted in enclosed areas at Meenbog Wind Farm. Smoking is only allowable in external areas but is not allowed whilst working. In addition, all cigarettes and matches must be properly quenched to eliminate potential bush fires.

(D) Clean-up

A daily clean-up of all areas is required to prevent the accumulation of combustible materials such as paper, wood, etc.

(E) Compressed Gas

Secure all compressed gas cylinders in an upright position so they cannot be knocked over. Do not drop from a height. Close the main cylinder valve when left unattended for extended period of time. Compressed gas cylinders should be stored in a safe manner when not in use. Flammable gas cylinders should be fitted with flash back arrestors when in use.

(F) Motor Vehicles

Only authorized vehicles are allowed onsite. Authorization must be sought from the PSCS. Speed limits within the site access roads are restricted to 15 kmph.

(G) Alcoholic beverages and Drugs

The consumption of alcohol or drugs is strictly prohibited. Any person found under the influence of either substance will be escorted from the project.

(H) Eating

The eating of food of any kind on site is prohibited other than in contractor's own vehicles. And in the compounds provided

(I) Tools and Equipment

Contractors are responsible for providing all of their own tools and equipment. They are also responsible for ensuring that this equipment is kept in a safe and usable manner. Contractors will also be responsible for ensuring that tools are stored in safe location when not in use.

(J) Transport of Fuels / Solvents

The transport of any liquid type solvent onto site for construction and maintenance purposes must be in an appropriate type, fully labeled container. An appropriate type container does not mean soft drink bottles or such like. Specific permission must be obtained from the PSCS prior to bringing in and storing any flammable liquid.

(K) Contractors Safety Management

Contractors shall have a safety statement that is in compliance with statutory and company policy and shall implement effective safety programmes accordingly. Contractors shall manage the activities of their own employees. Contractors must also co-operate with each other and the PSCS, any areas of contention should be immediately brought to the attention of the PSCS for resolution.

(L) Contractor Responsibilities

Each new Contractor employee arriving at the work site shall be clearly instructed on the contents of the contractor's safety statement and their role in emergencies. Before being allowed to commence work, contractor's employees shall be made fully aware of the potential hazards of their particular working environment. Hazardous areas must be explained and identified to the employees.

Contractor's employees shall be made fully aware of the safety regulations applicable to the work site including the smoking regulations, traffic/parking restrictions etc., and properly instructed regarding the danger of handling hazardous materials with which they may be involved.

Contractors shall ensure that employees are provided with appropriate personal protective equipment (at no cost to the employees). The equipment shall be used in accordance with job requirements and replaced as necessary. All Contractors equipment and tools shall be kept in a good and safe condition

and be inspected at regular intervals as determined by the company. They should be replaced when, damaged or broken and never used on work for which they were not designed. Contractors will be required to conduct risk assessments and submit detailed written method statements for part, or all of their scope of operations as required by the PSCS.

(M) PSCS Roles & Responsibilities

The PSCS will monitor and enforce these rules and regulations. If necessary, PSCS Supervision may stop or suspend all or part of a Contractors operation when safety hazards or poor work practices exist. Such suspension may remain in effect until all discrepancies are corrected.

(N) Contractors Supervision

Contractor's Supervision will be held responsible for:

- Maintaining safe working conditions with their work crews.
- Correcting unsafe practices of his workmen and instructing same in proper methods.
- Enforcement of the wearing of personal protective equipment as deemed necessary for the job being performed.
- Attending safety meetings as required.
- Setting a good example for all personnel.
- Reporting all injuries and incidents involving bodily harm, property damage and near misses regardless of the craft involved.
- Assisting in accident investigations when required.
- Instructing new employees on job specific safe work practice, procedures and ensuring they are familiar with safety features of tools and equipment used.
- Continually inspecting work locations as work is in progress. Noting and take corrective action on any discrepancies.

(O) Employees Responsibilities

Every employee is responsible for their own safety and the safety of other personnel on the project. Every employee is responsible for ensuring work is carried out in a safe manner. It is therefore necessary for each employee to know and adhere to all applicable regulations which apply to them and to identify and report hazards. It is also important that accidents, incidents and near misses are reported to avoid reoccurrence. The responsibilities of the employees shall include but not be limited to the following:

- Carry out their duties in a safe manner with due regard to safety.
- Work in compliance with statutory regulations and the instructions of their supervisors and comply with safe working practices and procedures.
- Maintain tools and equipment in good work order and report defects to supervision.
- Obtain necessary work permits and abide by their respective requirements.
- Report all unsafe acts or conditions including near misses without delay to supervision.
- Wear personal protective equipment and clothing correctly as and when required and maintain these in good order.

-
- Reports any accident, incident or, near miss to their immediate supervisor without delay.

17.3 EXISTING ON-SITE RISKS IDENTIFIED BY THE PSDP & PSCS

The following is a non-exhaustive list of unavoidable hazards that have not been included in Schedule 1 of S.I. No. 291 of 2013, which have been identified during the design stage. The list does not address common-place site hazards, standard construction practice or common construction materials risks which are routinely controlled by experienced and competent contractors in their application of good construction management in compliance with Safety and Health Regulations.

Site Current Land Uses

The Site lies within an area that predominantly comprises landscape characterised by rural working land, mixed forestry and cutover raised bog. The substation site lies on agricultural land. The principal land use within and around the Site is agriculture (grazing livestock) and forestry. Contractors should make allowance for agriculture and forestry works on or through the Site, including associated machinery, personnel and traffic.

Land cover on the wind farm site includes conifer plantation, wet grassland, grazing grassland and vanes of rock. Overall, peat depths recorded over the wind farm site ranged from 0 – 3m, with an average of <1m. The geology of the Site comprises of peat, brown clay, boulder clay and bedrock. Further geotechnical investigation will be conducted in due course, and reports can be obtained from the PSDP when available. There are drainage routes and streams running through and adjacent to the wind farm.

Existing Services Including Electricity and Gas

There is a risk of some existing buried and overhead line services on the Site and adjacent Substation Site, and it is likely there will be existing services installed in the public road along the underground grid connection route.

The Designers must establish where practicable the location of existing services through the use of geophysical scans, liaison with statutory undertakers and/or site investigations. The site design must consider the location of existing services to reduce the risk posed by services where possible. Contractors working on site must ensure that all electrical work equipment supplied and used on site must meet the statutory safety requirements for such equipment. Contractors must ensure that all electrical equipment installed/used (including that to power the contractor's offices and temporary

buildings etc.) meets all current statutory requirements. All electrical work is to be done under a permit to work system (both work on dead and live systems).

Contractors must have a documented safe system of work when installing, testing and commissioning electrical systems including a lock out/tag out or other effective isolation procedure when working on electrical installations.

All electrical work shall comply with and be carried out in accordance with the National Rules for Electrical Installations, as prepared by the Electro Technical Council of Ireland (ETCI). The following is a non-exhaustive list of electrical hazards:

- Safe provision and use of portable electrical work equipment (110 VAC)
- Suitable provision of electrical power for work equipment to be used on site
- Requirement for documented safe systems of work for all electrical work
- Use of temporary power supplies and transformers

The precise nature of this risk will need to be confirmed by the PSCS by conducting site audit. Risk assessments to be conducted to either eliminate any potential hazard or to ensure safe work practices are established and enforced. The following is a non-exhaustive list of precautions and legislation which needs to be complied with:

- Safety, Health & Welfare at Work Act 2005;
- Safety, Health & Welfare at Work (General App.) Regulations 2007
- Safety, Health & Welfare (Construction) Regulations, 2013
- Contractor Safety Statements and Method statements

Electrical installations must be designed, constructed and used so as not to present a fire or explosion hazard: Persons at work shall be adequately protected against the risk of electrocution caused by direct or indirect contact. The design, construction and choice of equipment and protection devices shall take account of the type and power of the energy distributed, external conditions and the competence of persons with access to parts of the installation. Given the nature of the works, special attention is required where work is taking place above water. The Contractor will be expected to exercise due

care and attention acknowledging the inherent risks of working with electricity in the vicinity of water.

Existing Storage of Hazardous Materials

The PSDP & PSCS have identified no hazardous materials stored on the site to date.

Mobile phone coverage

There is currently reasonable mobile phone coverage at the site. The contractors are expected to review the mobile phone coverage as part of the site specific safety statements.

Asbestos

An asbestos survey has not been carried out and it is not envisaged there is any asbestos on the site.

Contaminated Land

No survey regarding contaminated land has been carried out.

Manual Handling

Contractors must address manual handling issues as a legal requirement. In addressing the issue of manual handling the contractor's attention is drawn to the requirements of the following which include the requirement for training and risk assessment:

- The Safety, Health and Welfare at Work (Construction) Regulations, 2013.
- Safety Health & Welfare at Work (General App.) Regs 2007 (Part 2, Chapter 4 – Manual Handling of Loads)

Cleaning, Treating of Building Materials

The Designer should consider the design of elements in order to reduce the requirements for the use of dangerous chemicals and substances. Precautions will be required when Contractors come into direct contact with wet cement due to the risk of chemical burns. These issues should be addressed within Contractor Safety Statements.

Particular hazards on the site are:

- Contact with wet cement.
- Contact with acid, dosing and cleaning materials

Exposure to Bacterial or Viral Infection

Contractors should consider the hazard posed by potentially hazardous areas such as rivers, refuse dumps etc. and develop the design requirements to reduce the exposure of operatives to these areas. If the project entails working in close vicinity to water and pits, the Contractor must assume the presence of rats and thus the likelihood of contamination of the site with rat urine.

As such, it is vital that appropriate protective clothing is worn at all times. Specific risks of working in such conditions include:

- Weils Disease
- Hepatitis
- Lyme Disease

The above list is non-exhaustive and the Contactor shall ensure that high standards of hygiene are maintained by all operatives and visitors to the site. In particular, hands should be washed prior to eating and that hand/face contact should be minimised.

Traffic Management

During the works, contractors will be required to implement and maintain suitable Traffic Management Systems. The safety of operatives and members of the public is paramount and as such, traffic management is an important aspect of the works.

Care must be taken that the Contractor does not cause any obstruction to traffic entering the site which could result in vehicles attempting to access the site being stopped on the public road and causing a hazard to other public traffic.

Standing Water

It is likely that the various designs and construction works will create new or additional areas of standing water across the Site e.g. attenuation ponds and/or silt traps. The site designers and construction contractors shall allow for sufficient protection around these to reduce the potential risk of drowning. These protection measures will need to be location specific.

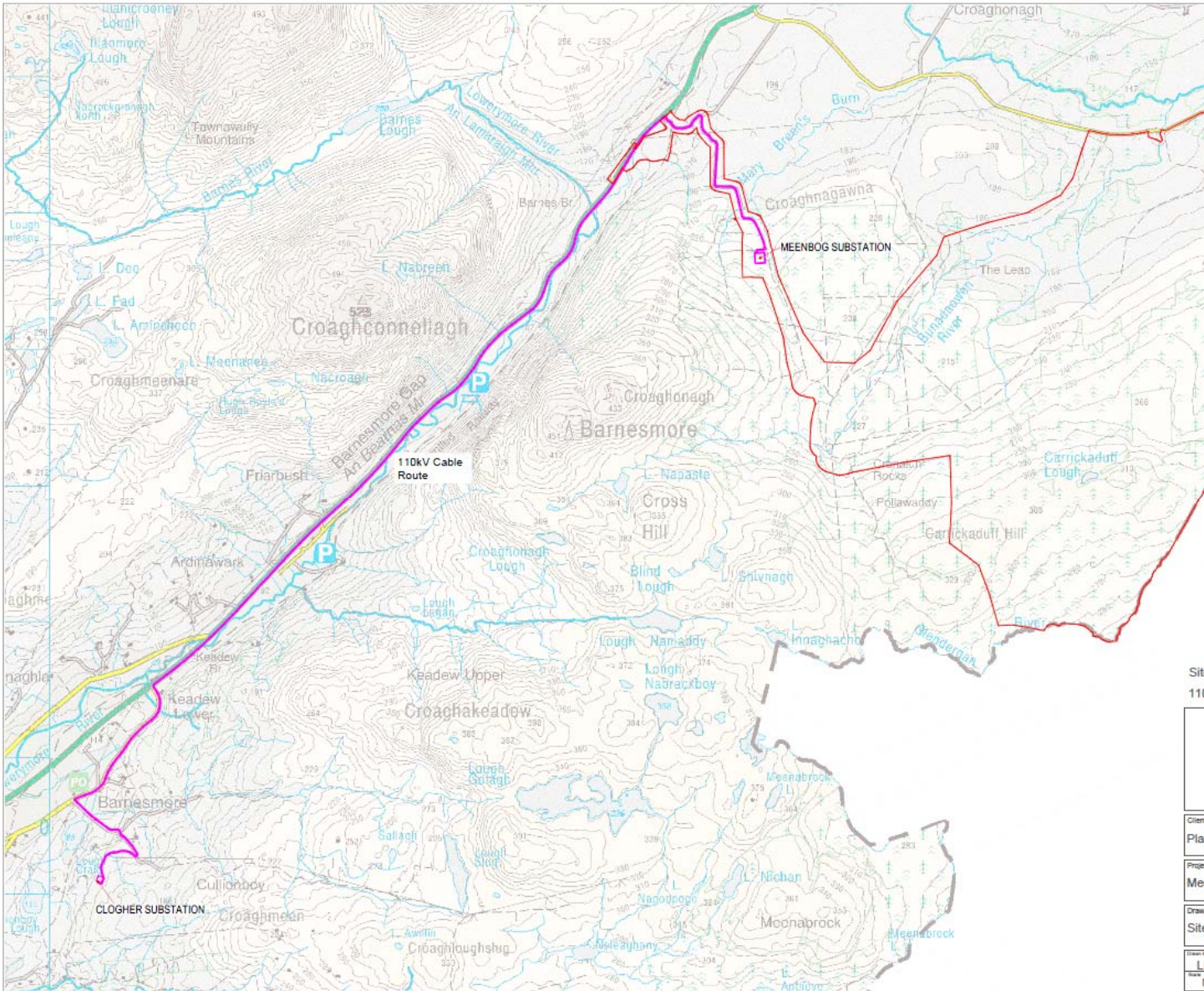
17.4 SAFETY LEGISLATION

The full requirements of all relevant health and safety legislation are to be observed as far as they apply to the project, including:

- Factories Act, 1955, (S.I. No. 10 of 1955);
- Safety in Industry Act, 1980, (S.I. No. 9 of 1980);
- The Safety, Health and Welfare at Work Act, 2005 and amendments;
- The Safety, Health and Welfare at Work (General Application) Regulations, 2007;
- The ESB Safety Rules, 1991, Electrical (Generation);
- The Safety, Health and Welfare at Work (General Application) Regulations 2012 ;
- Organisation of Working Time Act, 1997, (S.I. 20 of 1997);
- The Safety, Health and Welfare at Work (Construction) Regulations, 2013 and amendments;
- The Grid Code, Eirgrid Grid Code Version 5.

Nothing in this document shall relieve any contractor of their obligations to comply with the requirements of these Acts and Regulations.

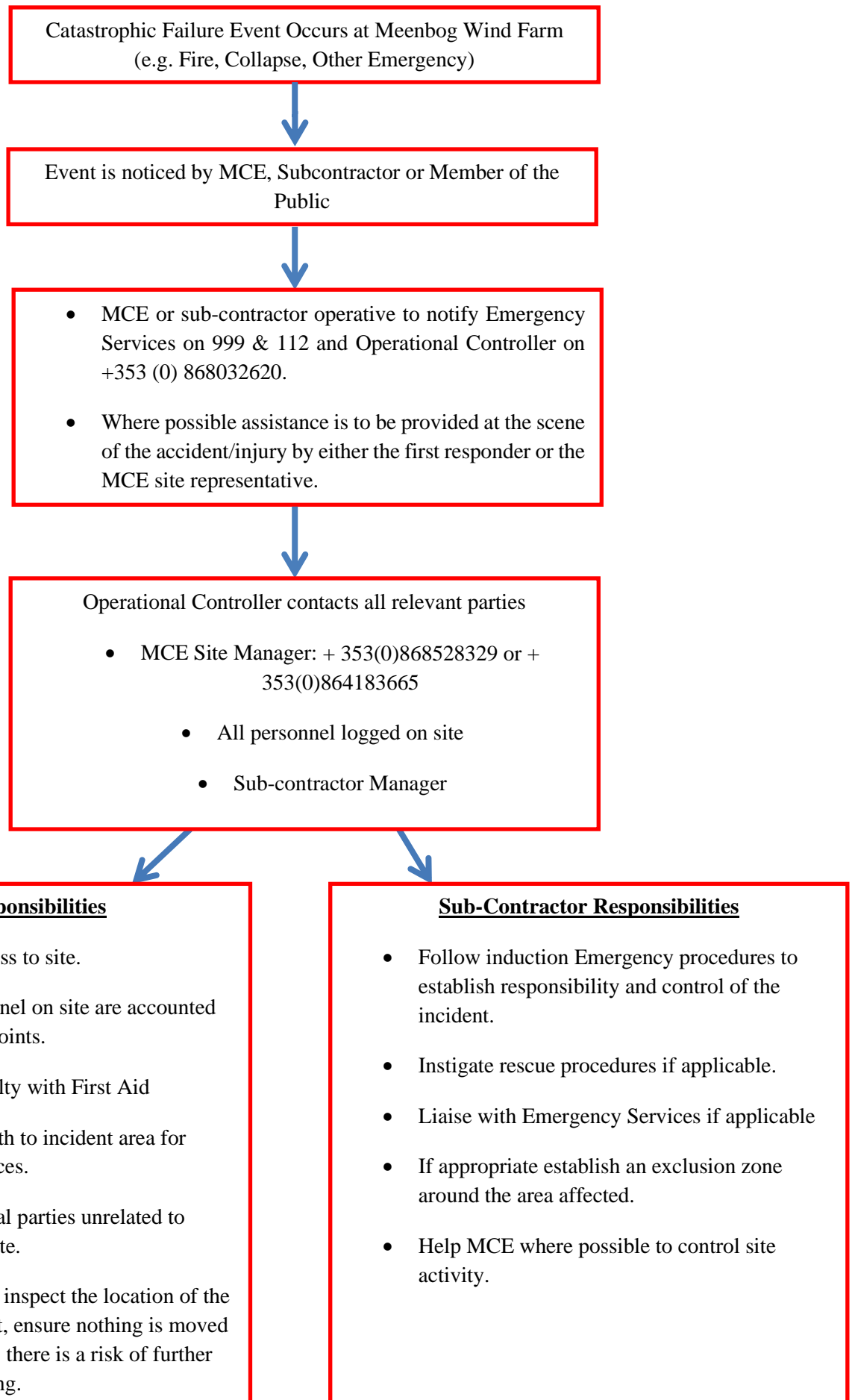
17.5 PSCS SITE BOUNDARIES





17.6 CATASTROPHIC EVENT FLOWCHART

Meenbog Wind Farm – Actions in the Event of Catastrophic Event



17.7 EMERGENCY PROCEDURES

Meenbog Wind Farm - Emergency Procedures

FIRE

- Evacuate scene of Fire and Proceed to the Assembly Point.
- Dial 999/112 for Fire Service.
- Identify Windfarm as Meenbog Wind Farm.
- Call Operational Controller (+353 (0) 868032620)
- Call Site Manager (+ 353(0)868528329) or (+ 353(0)864183665)

INJURY

- Assess Casualty, if ambulance is required call 999/112.
- Identify Windfarm: Meenbog Wind Farm.
- Instruct Emergency Services to Come Directly to Location of Injured Person.
- Attend to Casualty and give First Aid if Trained to do so.
- Call Operation Controller (+353 (0) 868032620)
- Site Manager (+ 353(0)868528329) or (+ 353(0)864183665)

BOGSLIDE

- On Discovery of a Landslide/Bogslide, Immediately Call the Site Manager.
- If anyone is injured, follow the Injury Procedure above.
- The Site Manager is Responsible for Assessing the Extent and Severity of the Slide and Shall Decide if the Windfarm is to be Evacuated. If Evacuation is called, proceed to the Assembly Point.

SITE RESTRICTIONS

- All Wind Turbines Accessible Using Standard Road Vehicles. Speed Limit On-site is 15kph.
- Mobile Phone Coverage on Site can be unreliable.
- Always Check your Work Area for Signal. If you are Unhappy you can't Phone Emergency Service, Please Carry a Radio to Contact a Responsible Person who can Make the Call.

Meenbog Wind Farm – Directions to Hospitals

DIRECTIONS FROM MEENBOG SUBSTATION /CABLE ROUTE TO DONEGAL COMMUNITY HOSPITAL

- From site, turn left onto N15. Continue straight for approx. 14.4km.
- At the roundabout, take the 2nd exit into the R267.
- Continue straight for approx. 1km, then turn right and then immediately left.

DIRECTIONS FROM MEENBOG SUBSTATION/CABLE ROUTE TO LETTERKENNY UNIVERSITY HOSPITAL

- From site, turn right onto N15. Continue straight for approx. 12km.
- Turn left onto Meetinghouse St/N13.
- Continue straight for approx. 3.8km. Turn left to stay on the N13.
- Continue straight for approx. 13km.
- At the Dry Arc roundabout, take the 1st exit onto N14/N56
- Continue for 1.4km. At the next roundabout, take the 2nd exit onto Port Rd/N14.
- Continue for another 1km. At Station roundabout, take the 3rd exit onto Ramelton Rd.
- At the next roundabout, take the 1st exit onto De Valera Rd.
- Continue straight for approx. 500m. At the roundabout, take the 3rd exit onto Kilmacrennan Rd.

17.8 RISK ASSESSMENT

MCE Ltd. Ltd. Hazard Identification & Risk Assessment for Meenbog Wind Farm



Hazard Identification & Risk Assessment

A Hazard Identification & Risk Assessment has been carried out for MCE Ltd. This assessment is intended as a guide to use for the purposes of attempting to reduce the possibility of accidents or ill health occurring.

Taking into account the constraints of time and resources, every effort has been made to identify the existing hazards and recommend possible solutions. It is not reasonably practicable to expect a single audit to state all hazards or that all other hazards are under control at the time of the audit.

This Hazard Identification & Risk Assessment Report is to be advisory and the final decisions must be made by the management of MCE Ltd.

The Risk Assessment is based on the combination of the SEVERITY and LIKELIHOOD associated with each hazard.

HAZARD: Is taken to mean “anything that can cause harm”.

RISK: Is “the chance, great or small, that someone will be harmed by the hazard”.

SEVERITY: Is “the possible outcome of an accident / incident, e.g. broken leg, explosion”.

LIKELIHOOD: Is “the possibility of the accident / incident occurring”.

In the Risk Assessment SEVERITY and LIKELIHOOD have been graded as follows:

SEVERITY		LIKELIHOOD	
Major	3	High	3
Serious	2	Medium	2
Slight	1	Low	1

The **Risk Factor** is the multiple of **Severity** and **Likelihood**. **RISK** is then graded as follows:-

GRADE OF RISK	VALUE	RISK	CHARACTERISTICS
High Risk	7 – 9	“H”	Possibility of a single fatality or serious injury or of minor injury to a number of people. Possibility of significant material loss.
Medium Risk	4 – 6	“M”	Possibility of minor injury to a small number of people. Risk of some material loss. The possibility of fatality or serious injury or significant material loss is unlikely although conceivable.
Low Risk	1 - 3	“L”	The possibility of injury or material loss is unlikely, although conceivable.

Hazard / Risk Controls

Control measures stated on the attached sheets are intended to reduce the assessed risk to an acceptable level. Where it is felt that the existing controls are not adequate, additional measures are recommended to rectify this. The Hazard Identification & Risk Assessment should be reviewed at least every year.

All operatives are to notify a MCE Ltd. supervisor in the event of any accident / injury no matter how small and this is to be recorded in the MCE Accident Book.

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT			
NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 1 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

WORK AT HEIGHT: What is work at height?

Work at height is work in any place, including a place at, above or below ground level, where a person could be injured if they fell from that place. Access and egress to a place of work can also be work at height.

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Mobile Scaffold and Alloy Towers used on site at MCE Ltd.	<p>Serious personal injury. Fatality. Falls from height Materials being dropped Material Damage</p>	<p>All scaffold records should be kept on form GA3, as per the General Applications Regulations 2007, SI No. 299, Regulation No 119. And as from May 2008, those erecting Tower Scaffolds must either possess a FAS / FETAC Level 1 or 2 Scaffolding Ticket or the FAS / FETAC Tower Scaffold Qualification (or other accepted qualifications). In addition, the following points should be considered:</p> <p>Always: Check prior to use for its safety and security and complete inspection as per the Work at Height Regulations 2007. It is good practice to use a "Scaff-Tag" identification system on these scaffolds. Where they are unsafe to use, a safety sign displaying this should be put in place. Joints should be checked to ensure crossbars and uprights are tightly secured. Guardrails and toe boards must be fitted if working above 2 metres. Foot ties should be as close to the wheels as possible. Swivelling castors with brakes should be secured to the uprights. Keep brakes on when in use. Ensure the working platform base to height ratio is at least 3:1 external, 3.5: 1 internal. Ensure the working platform has close fitting boards, evenly supported, kick boards and handrails and proper secure ladder access. Secure to a building if so required or use secure outstays. Check for overhead obstructions and cables, ground holes and floor obstructions when moving a scaffolding tower.</p> <p>Never: Ride on the tower when being moved. Overload the tower. Erect the tower unless trained to do so. Remove or partly dismantle it unless you know what you are doing and it will be replaced immediately. Use near overhead live electric cables, electricity can arc.</p> <p>Different types of Alloy Towers have different recommendations regarding assembly. Always refer to 2008 Code of Practice, General Applications Regulations 2007 and the manufacturer's recommendations.</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 2 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Use of Mobile Elevated Work Platforms (boom and scissor lifts)	Fall from work platform Elevated machine collapsing on soft ground Fatality by being catapulted from falling platform. Crushing against ceilings/roof.	<p>As per the General Applications Regulations 2007, SI No. 299, Part 4 Schedule 1, ensure that Mobile Elevated Work Platforms are to be used only if a risk assessment has been demonstrated that the use of other work equipment is not suitable for the job.</p> <p>The machine must be of a suitable and sufficient strength and rigidity for the purpose for which it is intended to be used.</p> <p>Ensure that the machine cannot be inadvertently moved during work at height.</p> <p>The manufacturers' manual in relation to the machine must be available to the operator. Trained personnel must only operate it.</p> <p>Prior to use, check the Safe Working Load of the machine. Always keep a safe distance from electrical cables.</p> <p>Operators must be trained regarding wind assessment.</p> <p>There should be a ground operator always present to operate the emergency controls in case of system failure.</p> <p>The stability and suitability of ground conditions must be checked before starting operations.</p> <p>The machine must be checked before use, especially the guardrails.</p> <p>Hydraulic jacks, where available should always be lowered for stability.</p> <p>The Safe Working Load must be observed for personnel and materials.</p> <p>A harness must always be worn and tied at an appropriate part of the platform. (Operators must be trained in the use of the harness).</p> <p>Other relevant Personal Protection Equipment must be worn.</p> <p>Travel only when the Mobile Elevated Working Platform is lowered.</p> <p>Personnel must stay within the platform whilst operating it. A Mobile Elevated Work Platform should not be used as a means of accessing work areas.</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 3 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures	S	L	S x L	Risk
	3	3	9	H
<p>Ladders: in use for general access purposes, from scaffold, work platforms, "short duration" purposes</p>	<p>Falls from height Materials/tools dropped Serious Personal Injury Fatality Material Damage</p>	<p>As per Regulation 114, Part 4 of the General Applications Regulations 2007, SI no 299, work at Height ensure that ladders are used only if a risk assessment has demonstrated that the use of more suitable work equipment is not justified because of the low risk and</p> <p>(a) Short duration of use or (b) Existing features on site cannot be altered.</p> <p>In general, the Risk Assessments carried out by this business have shown that there are occasions where we will have to use the ladders, as no other work equipment or work platform is reasonably practicable.</p> <p>Ensure that the ladder is in good condition and check it for defects prior to use. The base of the ladder should be resting on a firm level surface and should never be resting on loose material or other makeshift arrangements to gain height. Where practicable, the ladder must be secured at the top so that it cannot slip. Where ladders cannot be secured at the top, then suitable stops should be applied to the base.</p> <p>A ladder should normally have 3 points of contact i.e. hands and feet. In situations where the base cannot be secured, another person must 'foot' the ladder, by holding it securely, until the user has returned to the bottom. Footing is not considered effective for ladders exceeding 5 metres.</p> <p>Always place a ladder at a safe angle to minimise the risk of outward slippage, i.e. 1 metre from its resting point every 4 metres high, ratio of 1:4. A ladder used for access must be long enough to protrude sufficiently above the place of landing to which it provides access, i.e. at least 1 metre above the landing, or 3 rungs, unless another source of handhold is available at the top of the ladder. Where a ladder rises to a vertical distance of 9 metres or more above its base, sufficient landing areas or rest platforms shall be provided at suitable intervals where reasonably practicable.</p> <p>A ladder should be used in such a way that:</p> <p>(a) a secure handhold and secure support are always available to the employee and (b) the employee can maintain a safe handhold when carrying a load.</p> <p>Records of inspection of ladders should be made on form GA3, as per the General Applications Regulations 2007, SI No. 299, Regulation No 119. Each ladder should be individually identified and reported on the GA3 Form, with the scaffolding</p> <p>Sub contractors to MCE Ltd. on site must keep a GA3 form inspection of their own ladders. Each ladder must be easily identifiable / individually marked. Only Class 1 ladders, for industrial purposes, are allowed on site. Ladders must not be used if:</p> <ul style="list-style-type: none"> <input type="checkbox"/> They are cracked. <input type="checkbox"/> They have been painted. <input type="checkbox"/> Are damaged in any way, e.g. rungs broken. 		
Risk After Control Measures	S	L	S x L	Risk
	3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 4 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Step-ladders: in use for 'Short Duration' purposes,	Falls from heights Material / tools dropped Serious Personal Injury Fatality Material Damage (The H.S.A. have not defined 'short duration'. Short duration has been described by the <i>Health and Safety Executive</i> as 'where carrying is necessary by a single person up to 10kg is acceptable, such as a bucket of material. Up to 25kg must be justified by a detailed Manual Handling Risk Assessment. Above 25kgs is not acceptable. The time limit is described as maximum of 15-30 minutes work at a single position before the ladder is moved).	Many of the general rules for Safe Use of Ladders also apply to stepladders. In addition the following points should be considered: 1. The legs of stepladder should be positioned as far apart as the returning cord or hinges allow, with all four legs firmly and squarely on the ground. 2. They should be set at right angles to the work whenever possible. 3. When stepladders are used, the knees of the person using the stepladder should be kept below the top step. 4 The top tread of a stepladder should not be used as a working platform, unless it has been constructed as a platform with a secure handhold. 5. "A" frame ladders and stepladders are intended as access means for light type of industrial work. This business will ensure that an "A" frame ladder is used for work at height where our risk assessments have demonstrated that a more suitable work equipment is not justified because of low risk and: (a) The short duration of use and / or (b) Existing features on site cannot be altered. Records of inspection of stepladders should be made on form GA3 , as per the General Applications Regulations 2007, SI No. 299, Regulation No 119. Refer to CITB Manual GE 700. Note: Generally "A" frame "ladders" should be considered as "trestles". The reason for this is where the gap between the rungs is greater than a regular ladder as per B.S. 1129.			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 5 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Work at Height in ceiling voids	People falling from height Serious personal injury Fatality	As per the General Applications Regulations 2007, SI No. 299, Part 4, Work at Height, all Work at Height should be assessed prior to work commencing to establish if there is a safer alternative. The Supervisor must use the attached Work at Height Risk Assessment Form for this purpose. Ensure access to roofs and suspended ceilings made of materials of sufficient strength are not permitted unless: <ol style="list-style-type: none"> 1. Equipment is provided to ensure that the work can be carried out in a safe manner. 2. Appropriate warning signs in accordance with Part 7, Chapter 1 of the General Applications Regulations 2007 (SI No 299) are placed at such access points. 			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 6 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures	S	L	S x L	Risk
	3	3	9	H
Telescopic Handler / Loadall Serious personal injury. Fatalities. Collision. Machine overturning. Material falling from height. Contact with overhead electrical cables	<p>The site management of MCE Ltd. must ensure a competent person inspects the telescopic handler every 12 months and a GA1 is obtained. This must be available for inspection.</p> <p>Under the Construction Regulations, 2013 the telescopic handler must be inspected weekly by the operator and the results must be recorded on a GA2.</p> <p>A thorough visual inspection should take place before the driver operates the machine. The driver must be trained and competent to operate the machine (FAS CSCS standard or alternative accepted standard).</p> <p>The capacity chart must be displayed prominently and clearly marked.</p> <p>All attachments must be suitable for the machine and they must be correctly attached.</p> <p>Do not lift loads with one fork, both forks must be used.</p> <p>When using slings or chains they must be correctly attached to the machine using the correct lifting points.</p> <p>As per the Construction Regulations, 2013 it is not acceptable to lift people in baskets attached to the telescopic handler, unless they can be controlled from the basket.</p> <p>Do not use telescopic handlers near or under ESB cables. Always follow ESB guidelines when working on site where overhead ESB cables are present</p> <p>All telescopic handlers must have safety devices fitted as per the Construction Regulations, 2013 S.I 504, Schedule 6, Regulation 87.</p>			
Risk After Control Measures	S	L	S x L	Risk
	3	1	3	L

Risk Before Control Measures	S	L	S x L	Risk
	3	3	9	H
Remoteness of Site in the Event of Emergency Delay in treating a casualty, leading to worsening of injury	<p>Ensure all workers are inducted & aware of the site emergency procedures.</p> <p>Ensure site supervision is available</p> <p>Ensure site supervisor carries site coordinates at all times</p> <p>Be prepared to assist emergency services to get to site</p> <p>All accidents must be reported to MCE site supervisor & the PSCS</p>			
Risk After Control Measures	S	L	S x L	Risk
	3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 7 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Site Traffic	Collisions. Serious personal injury to workers and road using public. Property and vehicle damage.	Site Traffic belonging to MCE Ltd. must comply with MCE Ltd. traffic management rules which include the following <ul style="list-style-type: none"> At no times shall any vehicles block the road Two days notice required for all major deliveries No large deliveries will be permitted between 7.30am to 10.30am Mon –Fri or after 6.00pm Mon-Thurs and after 2pm Fri unless prearranged with the project manager for MCE Ltd. Employees encouraged to assist truck drivers when reversing. Always wear Personal Protective Equipment, especially a hi-visibility jacket. Keep all site traffic to maximum of 15KMPH. Ensure only trained and authorised personnel operate vehicles. Beware of danger or entrapment of limbs by machines. Keep all vehicles serviced and in good repair, as is necessary. All construction vehicles are to be provided with reversing beepers and reversing lights / flashing beacon			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		2	3	6	M
Hiring of cranes by MCE Ltd.	Falling Objects Personal Injury	In Accordance with the General Applications Regulations 2007, SI no 299, Regulation No 59, Any person who hires out lifting equipment for use shall comply with the duties set out in Reg No 52 and 54 of the Act:- Examination and Testing of Lifting Equipment Keeping records and registers of Lifting Equipment As per MCE Ltd.. site rules seven days notice along with a safety method statement is required to bring cranes on site. Lifting operations as per 6.15 of MCE Ltd.. CSSP 6.15			
Risk After Control Measures		S	L	S x L	Risk
		2	1	2	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 8 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Lifting Equipment, Chains, Slings, Shackles, etc	Serious injury from falling object. Fatalities. Damage to loads being lifted.	<p>A competent person must inspect such equipment every 6 months and results recorded on the GA1 as per the 2007 General Application Regulations must inspect all lifting equipment.</p> <p>Only trained, experienced and authorised persons should be allowed to use slings and chains for lifting. (FAS CSCS standard or alternative accepted standard).</p> <p>All lifting equipment must be inspected before and after use for any damage or defects. If damage is found do not use and report immediately to the Supervisor of MCE Ltd.</p> <p>The banksman must ensure that nobody stands underneath an elevated load supported by slings or chains.</p> <p>All lifting equipment must be stored safely after use.</p> <p>A register of all lifting tackle should be kept with a copy of the test certificate for each item.</p> <p>In Accordance with the General Applications Regulations 2007, Regulation 42. Ensure that:</p> <ul style="list-style-type: none"> • All Lifting operations are properly planned. • Permanently installed lifting equipment strength and stability during use should be assured. • Lifting equipment designed for low frequency use is not installed where its anticipated use will render the equipment unsuitable. • Machinery for lifting loads is clearly marked to indicate its safe working load. • Work equipment, which is not designed for lifting persons, is appropriately marked to this effect. • Every drum or pulley round which the chain or wire rope of any lifting equipment is properly secured thereto and at least two turns of such chains or rope remain on such drum in every operating position of the equipment. <p>Permanently installed work equipment is installed in such a way as to reduce the risk of the load –</p> <ul style="list-style-type: none"> - Striking Employees - Drifting dangerously or falling freely, and - Being released unintentionally. <p>Work equipment which is mobile or can be dismantled and which is designed for lifting loads is used in such a way to ensure the stability of the work equipment during use under all foreseeable conditions, taking into account the nature of the ground.</p> <p>Lifting equipment is not used beyond it's safe working load capacity</p> <p>With Reference with the General Application Regulations 2007 SI No 299, Regulation 44, an employer Must ensure that every platform or support, whether fixed or mobile, upon or from which lifting equipment is mounted or supported is suitable for the purpose.</p>			
Risk After Control Measures		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 9 of 22
ADDRESS:	Meenbog Substation & Cable Route, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

SITE MANAGEMENT

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Contractors to MCE Ltd.	Serious personal injury.	<p>We will monitor the ongoing activities of all sub contractors to MCE Ltd. On our projects. Induction training must be provided for Contractors, their staff and all others on site. Presentation of Site Safety Plan by Sub-Contractor to the Supervisor. The Sub-Contractors must prepare a Method Statement for each necessary job. Ensure that all lifting equipment are inspected regularly and results recorded – weekly on GA3 form, as required by statute. Ensure proper isolation of areas under reconstruction, so as to prevent accessibility or persons falling in. Use 110 V supply to all portable equipment</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
First Aid Equipment	Worsening of condition Onset of infection Fatality, permanent injury / illness	<p>Adequate first aid kits to be provided and filled to HSA guidelines. They must be regularly checked and refilled by designated person</p>			
Lack / Absence of First Aiders	Improper diagnosis Improper treatment Delay in seeking professional medical help. Worsening of condition Onset of infection Fatality, permanent injury / illness	<p>Vincent McCarthy is a trained first aider Trained first aider's to be present where practicable. Arrangements to be in place with local doctor for emergencies. All employees to be aware of emergency procedures.</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 10 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		2	2	4	M
Housekeeping And General Tidiness	Slips, trips or falls. Serious personal injury. Fractures. Burns etc.	All goods should be stacked and stores in a tidy and safe fashion. All open containers should be sealed and stored in the correct location. All waste/empty chemical containers must be disposed of in a safe manner and in accordance with the guidelines set out by EPA.			
Risk After Control Measures		S	L	S x L	Risk
		2	1	2	L

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Hot Work	Burns. Fire. Permanent disfigurement. Loss of limbs. Fatality. Hot objects, liquids, steam	We will adhere to all procedures imposed by MCE Ltd.. A hot work permit must be obtained from MCE Ltd.. A survey of work area and underneath it may be required pre the work start, during & afterwards. This will allow us to identify the materials that need to be covered or removed, including flammable materials. Fire extinguishers and fire blankets must be in place. A fire watch should be in place.			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		2	3	6	M
Personal Protective Equipment	Impact from flying Particles Head injury Foot injury Falls from height Burns or skin irritation etc	All necessary Personal Protective Equipment to be provided and used. Safety Signs to be put up to highlight this. Hard hats, hi visibility clothing and safety boots / shoes are compulsory while working on site.			
Risk After Control Measures		S	L	S x L	Risk
		2	1	2	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 11 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Injured Caused By Work Activities	Crushing. Head injury. Fractures. Cuts. Bruises.	Ensure adequate clearance is left around the working area for MCE Ltd. staff & sub contractors. Fence off the area. Ensure that only authorised personnel are in the vicinity of the operation and that correct protective clothing is worn. Ensure that the task is supervised and controlled by a competent person. Use cones, fences and red/white tape to mark off the area when working in factory areas and post warning signs of dangers.			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Walking on site / walking on uneven ground	Engulfment in bog lands, Slips trips & falls	Lone working is unlikely to occur, as there will be at least 2 MCE workers at all times on site, plus an archaeologist. Due to the nature of the terrain, it will be continuously rough, uneven & wet ground- Exercise extreme caution at all times when walking & working. Walk on hard stand areas or roadways where practicable. Adhere to site rules & signage. MCE will endeavour to backfill all drains or work areas excavated, to a safe operational slope or depth.			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT			
NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 12 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

GENERAL HEALTH & SAFETY ISSUES

Risk Before Control Measures		S	L	S x L	Risk
		3	2	6	M
Noise created in the workplace	Hearing impairment. Deafness. Tinnitus. Loss of concentration and annoyance leading to work place accidents and / or loss of production	<p>MCE Ltd. is aware that equipment such as angle grinders, etc. are over the 2nd Action Level. Staff have been advised of this. It is not anticipated that any member of our staff are exposed to such a dose that they will either daily or weekly require monitoring. Check all machines and work areas for sources of excessive noise. Reduce noise levels by technical means where possible. Signpost all excessively loud equipment, machinery, areas and processes which exceed the upper exposure action level of 85dB(A) and the lower exposure action level of 80dB(A). Reduce the worker exposure levels by reducing the amount of time spent near sources of excessive noise (job rotation). (Note: this should be considered as a last resort). Hearing protective equipment must be provided if deemed necessary, as per the Noise Regulations. Ensure hearing protection is worn for short-term noise exposures (this should also be a last resort). Remove other people from such noisy areas, unless their presence is required. They must wear hearing protection whilst in such areas.</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		3	2	6	M
Manual Handling	Back, Neck, Shoulder Injury. Prolapsed Disc. Permanent Injury. Trip / Fall. Hit Against. Dropped Object.	<p>All MCE Ltd. staff and subcontractors employees must be trained in Manual Handling. In Accordance with the General Application Regulations 2007, No 69, an employer must ensure that he/she takes appropriate organisational measures, or use the appropriate means, in particular mechanical equipment, to avoid the need for the manual handling of loads. Minimise all manual-handling tasks where possible. Provide suitable mechanical handling equipment such as teleporters etc. Ensure these are used. Assess all weights being lifted per the Safety, Health and Welfare (General Applications) Regulations 2007 and where necessary reduce these to acceptable levels. Provide Manual Handling training to all staff whom have not received it. Personal Protective Equipment including gloves to be provided and used.</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 13 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Eye Injury	Eye injury Permanent damage to eyes Loss of sight in one or both eyes	<p>Training to be provided re sight care. Signpost locations where eye protection is mandatory. The Supervisor for MCE Ltd. to enforce mandatory wearing of eye protection where required. Glasses, goggles and visors to be provided where necessary. Protection for chemical hazards to conform to BS2092: '67.</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		2	2	4	M
Poor Hand Hygiene	Skin complaints, dermatitis, eczema. Ingestion of chemicals. Biological agents, toxins, bacteria and viruses.	<p>Good hand hygiene is essential in the workplace. The hands are the most likely part of the body to come into contact with harmful substances. Wash hands before eating or smoking. Suitable gloves should be worn when handling potentially hazardous materials. In some cases, the use of an appropriate barrier cream might be appropriate. Dirty hands should be cleaned using proper skin cleansing products. Do not clean hands with petrol, white spirits, thinners, turpentine etc. Always ensure you wash your hands after visiting the toilet. Educate staff and develop specific procedures in the event of specific illness outbreaks, such as swine flu. Preventative policies may assist with the prevention of illness transfer.</p>			
Risk After Control Measures		S	L	S x L	Risk
		2	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		3	2	6	M
Burns	Permanent disfigurement. Loss of limbs. Fatality. Chemical. Electrical. Fire. Friction. Hot objects, liquids, steam. Cold objects, liquids, gasses.	<p>Where necessary, guards should be considered for exposed hot surfaces. Audit to be undertaken to locate sources of excessive heat at workplaces. Warning signs in place. Task related training to be provided. Personal Protective Equipment including suitable gloves to be provided and used. Emergency procedure to be properly displayed and checked regularly. First aid facilities to be properly sited and maintained Trained first aid personnel to be on site where practicable. Personnel to always check electrical equipment before use.</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 14 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures	S	L	S x L	Risk
	2	3	6	M
Chemicals Eye injury / loss. Skin infection. Burns. Inhalation. Ingestion with food. Worker chemical exposure levels exceeded. Injury to pregnant employees / unborn / new-born. Fire. Explosion. Serious personal injury. Fatalities.	Safety Data Sheets to be obtained for all chemicals and strictly followed. Copies to be available in case of an emergency. Evaluation of chemicals at purchasing stage to take place. Proper chemical inventory / records to be kept. Containers to be properly labelled (hazard signs). Safe storage and dispensing of chemicals to be practiced. Follow manufacturer's requirements for handling, mixing, storage and first aid etc. Personal Protective Equipment to be provided and used. Regular (annual) medical checks for personnel who work with chemicals to take place where indicated as necessary by risk assessment. Training to be provided for staff working with chemicals. Familiarisation to be provided with the emergency procedure to all staff. Best possible hygiene procedures to be in place and enforced by Management. Sources of flame / ignition to be eliminated where flammable materials are used and / or stored. Spillage's to be immediately dealt with.			
Risk After Control Measures	S	L	S x L	Risk
	2	1	3	L

Risk Before Control Measures	S	L	S x L	Risk
	2	2	4	M
Oils / Diesel / Petrol Fire Burns Skin & Eye Irritant Dermatitis Environmental Slip / Fall.	Safety Data Sheets must be obtained for all oils and strictly followed. Copy to be available for emergency use. Containers must be properly labelled (hazard signs). Safe storage and dispensing of oils to be practiced. Familiarisation to be provided to staff with the emergency procedure. Best possible hygiene procedures in place and enforced by management. Sources of flame / ignition must be eliminated. Gloves to be provided and used. Spillage's immediately dealt with.			
Risk After Control Measures	S	L	S x L	Risk
	2	1	2	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT			
NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 15 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

TOOLS AND EQUIPMENT USED AT MCE LTD.

Risk Before Control Measures		S	L	S x L	Risk
		2	2	4	M
Portable Tools	<p>Cuts. Amputation . Burning. Pinching. Puncture. Impact injuries. Eye injuries. Electric shock. Hearing impairment. Tinnitus. Strain / sprain.</p>	<p>Always use correct tool for job on hand at MCE Ltd.. Sharpen, or get cutting tools sharpened regularly. Personal Protective Equipment must be provided and its use mandatory as per the manufacturer's guidelines. Do not wear gloves when using portable drills. Inspect portable leads and extension leads before use, replace if damaged. Inspect air tools and pipework before use, replace if damaged. Don't use damaged, worn or dangerous tools. Report any defects to your Supervisor. Keep hands behind the cutting edge of cutting tools. Keep cables tidy, don't leave cables lying on the ground. Keep knives, chisels, screwdrivers and other sharp tools in a safe place, not pockets. Don't use electric drills with one hand. Always use both hands. Don't remove safety devices from tools or equipment. Don't operate portable tools in wet environments unless properly adapted. Unplug tools when not in use. In Accordance with the General Applications Regulations 2007, SI No 299, Regulation no 81, An employer must ensure that:</p> <ul style="list-style-type: none"> a) A circuit supplying portable equipment, including any supplied by an electrical generator and in which is used alternating current at voltage: <ul style="list-style-type: none"> I. Exceeding 125 volts, and II. Not exceeding 1,000 volts, <p>Is protected by one or more residual current devices having a tripping current not exceeding 30 milliamperes operating within such period of time so as to provide the necessary protection to prevent danger to any person coming into direct or indirect contact with any live part of the circuit.</p> <ul style="list-style-type: none"> b) Portable equipment is maintained in a manner fit for safe use c) Portable equipment which is exposed to conditions causing deterioration liable to result in danger and, supplied at a voltage exceeding 125 volts alternating current, is <ul style="list-style-type: none"> I. Visually checked by the user before use, and II. Periodically inspected by a competent person, appropriate to the nature location and use of the equipment. <p>An employer shall ensure, where appropriate, that a competent person- a) Tests any portable equipment described</p> <ul style="list-style-type: none"> b) Certifies whether or not the portable equipment (including any cables or plugs) was, on the day of the test, as far as could reasonably be ascertained, safe and without risk to persons coming into direct or indirect contact with any live part of the equipment. <p>If the certificate of the competent person, if the equipment is not deemed safe without risk on the day of the test is not used until it is made certified. Portable equipment, other than portable transformers and generators, supplied at a voltage exceeding 125 volts alternating current is not used in- Construction work, External quarrying activities, Damp or confined locations. (Unless it's rating exceeds 2 kilovolt amperes). Portable hand lamps supplied at a voltage exceeding 25 volts alternating current or 50 volts direct current is not used in- Construction work, External quarrying activities, Damp or confined locations. Where a transformer or generator is used to supply electricity to portable equipment at a voltage greater than 25 volts, but not exceeding 125 volts, alternating current, The centre point, electricity, or Neutral (star) point in the case of three phase of the</p>			

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 16 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

		output voltage or secondary winding, Is connected to earth and the transformer or generator is of the double wound type		
Risk After Control Measures	S	L	S x L	Risk
	2	1	2	L

Risk Before Control Measures	S	L	S x L	Risk
	3	3	9	H
Abrasive Wheels: Angle Grinders	Wheels shattering at high speed. Serious facial / head injury. Cuts / wounds to hands, arms, upper body. Eye injury. Fire / explosion. Electric shock. Vibration – white finger. Injury to bystanders.	<p>Training must be provided as per the Abrasive Wheels Regulations, 1982 by MCE Ltd. Only trained and authorised personnel must be allowed to use abrasive wheels. The operator must carry out daily inspection. Guards must be in place at all times, when machine is being used. If electrically powered use 110v equipment only. Always ensure the workplace is secure. Correct Personal Protective Equipment must be worn at all times. (Gloves, ear protection, eye protection and steel toe capped boots). Inspect work area for all dangers prior to using abrasive wheels. A hot work permit WILL be required from management/site foreman. Use correct disc 's. Store them safely when not in use. Turn off & unplug grinders when not in use.</p>		
Risk After Control Measures	S	L	S x L	Risk
	3	1	3	L

Risk Before Control Measures	S	L	S x L	Risk
	3	3	9	H
Compressed Gases / Air	Explosion Fire Burns/Fatigue/ Nausea Serious personal injury Injury from bursting head Loss of lives Crush from falling cylinders Asphyxiation, Breathlessness	<p>Proper safe storage must always be practised by MCE Ltd. staff or sub- contractors. Ensure that a safe segregated storage is created for bottles. Bottles to be chained in an upright position. Fire prevention system to be followed and regularly serviced. Spark flow back arrestors must always be fitted to equipment Equipment to be regularly serviced by a competent person. Personal Protective Equipment to be provided and used. To be operated by trained and authorised personnel only. Standards to meet BS 6759 for valves, BS 6066 for hose assemblies, BS 5682 for hose connections.</p>		
Risk After Control Measures	S	L	S x L	Risk
	3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 17 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Loading And Unloading of excavator to/ from low loader.	Load falling or slipping	Know the machine's width, height, length and weight and ensure the transport vehicle is suitable.			
	Load swinging and hitting persons / plant etc	The truck driver must make sure the trailer is parked on firm, level ground before loading or unloading at any site.			
	Overturning of machine	When loading and unloading the machine, travel at the slowest speed possible. The ramp surface should be clean and free of mud, grease etc which might cause the machine to slide. If slewing is necessary when the machine is on the trailer, do this as slowly as possible, making sure other people are at a safe distance.			
		Engage the slew lock and secure the machine to the trailer, by suitable means, when travelling. If the machine begins to slide or becomes unstable, lower the attachment onto the ground as quickly as possible. The truck driver will choose a safe area to off load. No banksman is required for loading/ off loading as this is a private/ forest road with little traffic.			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Driving on Poor road conditions, getting to/ from the site	Deep drains off side of road	Exercise extreme caution when driving on road into site and also when on site. MCE supervisor will escort truck to site location if this is required.			
	Road subsidence	Truck driver will be made aware of site restrictions, site roads & their dangers by MCE site supervisor. The truck driver will choose a safe area to off load. No banksman is required for loading/ off loading as this is a private/ forest road with little traffic. Close all gates or barriers which you open.			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		2	2	4	M
Restricted Site Access	Falling into Drains / Excavations	Only inducted operatives will be allowed work within the outer compound of the substation.			
	Coming into Contact with Plant / Equipment				
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT			
NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 18 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Carbon Monoxide	Asphyxiation Overcome by fumes Death	<p>What is Carbon Monoxide? Carbon Monoxide (also known as CO) is a poisonous gas, which can be given off by any appliance, which burns a fossil fuel such as gas, coal or oil. CO can enter or accumulate in a room if:</p> <ul style="list-style-type: none"> • There is a faulty appliance. • The appliance has not been maintained. • The room is not properly ventilated. • The chimney or flue is blocked. <p>Carbon Monoxide is colourless, odourless and has no taste. It is a killer. Gas appliances need air to burn safely. With enough oxygen, burning Natural Gas produces Carbon Dioxide and water in safe amounts. These products are normally taken away by a chimney or flue. However, Carbon Monoxide can be produced if there is too little oxygen, or if the chimney or flue is blocked or obstructed. Look out for the danger signs.</p> <p>The Danger Signs A number of things may indicate that your appliance is unsafe:</p> <ol style="list-style-type: none"> 1. Stains, soot or discolouring around a gas fire at the top of a gas water heater could mean that the flue or chimney is blocked. 2. Appliances that burn slowly, badly (floppy flames), or go out. 3. Condensation or dampness on surfaces in the room once the appliance is lit. 4. There should not be a strange smell when the appliance is on. <p>If you are at all worried about a gas appliance, seek help. Don't delay and put yourself in danger.</p> <p>Symptoms Symptoms of Carbon Monoxide poisoning can be similar to those caused by other illnesses, such as a cold or flu. But if anyone in the area has any of the following symptoms when using a gas appliance, turn it off, report to the Supervisor, and go to the Doctor:</p> <ol style="list-style-type: none"> 1. Unexplained headaches, chest pains or muscular weakness. 2. Sickness, diarrhoea or stomach pains. 3. Sudden dizziness when standing up. 4. General lethargy. <p>Stop using the appliance immediately and do not use it again until a Registered Gas Technician or a qualified service agent has checked it.</p>			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT					
NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White		
DATE:	November 2019	Page No.	Page 19 of 22		
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane		
HAZARD	RISK ASSOCIATED	CONTROL MEASURES			
Risk Before Control Measures		S	L	S x L	Risk
		2	2	4	M
Cable Laying & Joint Bays	Electric Shock Shock. Burns. Falls. Contact with electricity, resulting in serious injury or death	All cables will be buried in accordance with trenching designs and good industry practice. Warning tape and cable markers have been used in order to help locate cables. Refer to drawings before all excavations. Safe access and egress to be provided from joint bays and trenches at all times.			
Risk After Control Measures		S	L	S x L	Risk
		2	1	2	L
Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Electrical work	Electric Shock Shock. Burns. Falls. Contact with electricity, resulting in serious injury or death	Ensure only competent staff (a qualified electrician) carry out these tasks. Carry out the Electrical work according to established industry practices as laid down by RECI and ETCI. Workers must make dead all circuits prior to working on them and use a safe work procedure system to make it impossible for a circuit to become accidentally energised. Fuses can be removed as part of this process. Return all tools to stores and tidy area after work is completed. Assess the area & work for the most suitable form of access to work at height on this MCE Ltd. project. Anthony Hennigan will assess this at tender stage.			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L
Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Live services including hot water, air, electricity, natural gas, etc.	Burns. Electrocution. Fire. Serious Personal Injury. Damage to property. Trip / Fall.	Ensure required permit is in place as required P7 PLANT ISOLATIONS No employee is will work, interfere or tamper with any live services work, installation, fitting or fixture unless they are fully aware of what they are doing, competent and authorised by management. Installation to be serviced and maintained by competent people. Personnel employed must provide evidence of qualifications and experience. Employees to be trained in use and danger o. Task related training to be provided by MCE Ltd.. Equipment to be regularly inspected, as per statutory requirements or best practice. Measures should be taken to avoid damage to services. Avoid trailing leads, as they lead to damaged cables and slips/trips/falls. All control panels are to be kept closed and locked. Access is to be kept clear. "CHECK THAT IT IS DEAD BEFORE YOU ARE".			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT					
NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White		
DATE:	November 2019	Page No.	Page 20 of 22		
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane		
HAZARD	RISK ASSOCIATED	CONTROL MEASURES			
Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Operating 360 degree Excavator	Collision. Falls Entrapment. Crushing. Impact with other machinery. Machine over turning on soft ground. Materials falling from a height. Contact with electric cables. Serious personal injury. Fatality.	<p>All certification for machine to be inspected & copied to the site file Training details will be checked & copied to the site file. Machine to be inspected by driver before use.</p> <ul style="list-style-type: none"> Only trained & certified operators with authorised MCE permission will be allowed operate this machine any windfarm site. All personnel must wear safety footwear, high visibility jackets and hard hats when working on this project at any site. Ensure the area is clear of all persons before you start operating. Walk around the excavator at the start of each phase of work to ensure no one is in the vicinity of the machine. Sound the horn to let other workers (and by standers) know that you are starting up. Stop immediately if someone approaches the work area. The reversing buzzer & motion/ sensor alarm/ reversing buzzer & flashing beacon must be in operational order (as per the 2013 Construction Regulations requirements). Never operate the excavator from outside the cab and always operate the excavator from the correct operating position. Do not drive across a steep slope under any circumstances. Drive straight up or down. Never allow an untrained or unqualified person to operate your machine Ensure a Convex mirror and/or camera is be fitted to this excavator. If required to lift, the operator will ensure the weekly GA2 form is completed for this excavator. The machine will also be supplied with the GA1 lifting certification (not thought likely/ no lifting planned). 			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L
Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Use Of Quick Hitch Devices	<p>- The bucket becomes disconnected from the quick-hitch resulting in personal injury or death</p> <p>- Cuts, abrasions and other injury to hands, for example when conducting maintenance/inspection or changing attachments, particularly when attempting to insert a pin using a hammer.</p> <p>- Injury to eyes.</p> <p>- Injury to feet & limbs, should attachment fall on personnel in the work area whilst being connected or disconnected.</p>	<p>Excavator operators should be trained on the use of quick hitches in general; Excavator operators should be competent to use the specific hitch on the machine they use; The manufacturer-specified retaining pin must be available on the machine; Operators should only use pins which have been designed for this specific use; Operator must check that the pin is in place on the hitch before starting the work and every time a different attachment is fitted; Operators are instructed not to use the machine unless they are satisfied that the quick hitch is secured. If the operator cannot see from the cab of the vehicle due to poor weather, then s/he must visually check from the ground; Random checks will be undertaken to ensure the precautions are being implemented, by the MCE supervisor. Where there are loose pins or clips, which may be easily lost, they should be retained or attached to the quick hitch. The area around safety pin insertion holes can be painted to make it clear to operators and site supervision where the pin should be inserted. Likewise, pins can be painted to make them more visible. Ad-hoc replacements of pins with large bolts, wire or other substitutes IS forbidden in all circumstances; The MCE Safe systems of work help ensure that other workers are not exposed to risk by working below the bucket, for example, ground workers in excavations.</p>			
Risk After Control Measures		S	L	S x L	Risk
		2	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT

NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 21 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		3	3	9	H
Forklift trucks / Teleporters	Collisions. Serious Personal Injury. Goods falling from heights. Property and Vehicle damage. Explosion. Burns	Flashing beacon and reversing beeper must be fitted. Keep all traffic to maximum of 15 KMPH. Ensure only trained and authorised personnel operate vehicles. Only the driver is to ride on the forklift truck. Loaded pallets must never be raised above pedestrians' heads. Keep all vehicles serviced and in good repair, as is necessary. Truck maintenance to be carried out by competent craftsmen. Take care when recharging batteries on battery powered forklift trucks, it can explode. Remember battery acid burns. Trucks to be fitted with ROPS frame. As per the General Applications Regulations 2007, Regulation 39. An employer shall ensure that a forklift truck carrying one or more employees is equipped or adapted to limit the risk of it overturning: <ul style="list-style-type: none"> • By installation of an enclosure for the driver. • By a structure preventing the fork-lift from overturning. • By a structure ensuring that, if the fork-lift overturns, sufficient clearance remains between the ground and appropriate parts of the fork-lift truck for the employees carried, or By a structure restraining the employees on the driving seat so as to prevent them from being crushed by parts of the fork-lift truck which overturns			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

Risk Before Control Measures		S	L	S x L	Risk
		3	2	6	M
Battery Charger and Batteries	Explosion. Chemical burns. Manual handling injuries. Environmental disposal.	Be aware that battery charging gives off a flammable and explosive gas called Hydrogen and ensure all safety measures are in place and adhered to. Always charge a battery in a well ventilated area. Keep away from heat or fire source. Do not cause a spark from the battery with tools. Do not smoke or light a match near the battery. The electrolyte contains poisonous and corrosive Sulphuric Acid. Never ingest electrolyte. Wash your hands after handling a battery. If electrolyte gets in your eyes, flush your eyes with clean water for 15 minutes. Seek immediate medical help. If electrolyte gets on your skin, thoroughly wash the contact area. If you feel pain or burning seek medical attention immediately. If electrolyte gets on your clothes, there is a possibility of it soaking through to your skin. Immediately take off the exposed clothing and follow the procedures for skin contact if necessary. Keep flammable materials away from the area. Battery acid will burn. Handle batteries with gloves and use eye protection. Batteries are heavy. Ask for assistance when lifting one. Add only distilled water to batteries to the required level.			
Risk After Control Measures		S	L	S x L	Risk
		3	1	3	L

CONSTRUCTION SITE HAZARD IDENTIFICATION & RISK ASSESSMENT			
NAME:	MCE Ltd.	PERSONS RESPONSIBLE:	Sean O'Driscoll, Kevin Dennehy, Gearoid White
DATE:	November 2019	Page No.	Page 22 of 22
ADDRESS:	Meenbog Wind Farm, Meenbog, Co. Donegal.	ASSESSED BY:	Christopher Murnane
HAZARD	RISK ASSOCIATED	CONTROL MEASURES	

Risk Before Control Measures		S	L	S x L	Risk
		2	2	4	M
Office Environment	Slips, Trips, Falls, Electric shock, Cuts, Entrapment Fire Arm, shoulder, wrist, neck injury	<p>Maintain floor coverings at MCE Ltd. are in a safe to use working condition. Any staff member who notices damage of unsafe floors must report this immediately & Organise for it to be repaired. Keep floor areas clear & tidy at all times. Carry out regular inspection of all electrical appliances and fittings. All electric cables on equipment is to be suitably tied (tie wraps). Ensure there is a sufficient number of power points to minimise the use of extension leads. Ensure a minimum floor space of 4.7 square metres for each individual including the desk and chair but excluding any other equipment or furniture. Proper consideration to be given to humidity levels. Under the General Applications Regulations 2007. Regulation 7.1, an employer must ensure the workplace is well ventilated and that sufficient fresh air is provided. For sedentary office work a minimum temperature of 17.5°C is to be achieved and maintained at every workstation after the first hours work at dry bulb temperature at 1.1 metres above the floor surface. Where a substantial amount of the work is done sitting down, ensure a minimum temperature of 16°C is achieved and maintained after the first hours work at dry bulb temperature at 1.1 metres above the floor surface. The room temperature needs to be appropriate having regard to the work methods used and the physical demands placed on employees. In Accordance with the General Applications Regulations 2007, Regulation 18 Part C, where any employees have during the course of their employment reasonable opportunities for sitting without detriment to their work or, where a substantial proportion of ay work done by employees can be done sitting, Ensure that</p> <ul style="list-style-type: none"> <input type="checkbox"/> Suitable facilities for sitting are provided and maintained for their use. <input type="checkbox"/> If this is not practical, they are otherwise ergonomically supported. 			
Risk After Control Measures		S	L	S x L	Risk
		2	1	2	L

Risk Before Control Measures		S	L	S x L	Risk
		2	3	6	M
Traffic Disruption During Construction Phase	Contact injuries with moving plant / equipment. Fall into open excavations.	<p>Traffic calming measures and diversion routes will be clearly marked out as indicated in the traffic Management Plan (TMP). Works will be carried out in compliance with the TMP and associated road closures.</p>			
Risk After Control Measures		S	L	S x L	Risk
		2	1	2	L

17.9 TEMPORARY WORKS REGISTER

17.9 APPENDIX –TEMPORARY WORKS REGISTER - TEMPLATE

TEMPORARY WORKS REGISTER

Project Name:

Project Address:

PSCS:

ICL Authorised Person:

Description of Temporary Works Element	Purpose of Temporary Works Element (support for structure, protection of personnel etc.)	Details of Competent Temporary Works Designer	Date of Installation/ Construction	Date of Completion and Removal	Competent Supervisor for the Installation/ Implementation	Authorised by/on behalf of Wind Prospect as PSDP

Temporary Works Design Certificates and plans must be attached to this register for all temporary works prior to the works commencing.

Temporary Works Design Certificates must be circulated to all temporary and permanent works designers a minimum of 10 working days prior to temporary works being installed or constructed.

Qualifications Certificates or other evidence of formal qualification should be attached to this register for all those involved in the design and management of temporary works. The Ionic Consulting authorised person (named above) will only sign off on the element of temporary works where there is evidence of competence for designers and where Temporary Works Design Certificates have been prepared.