NEC Installation & Refuelling

METHOD STATEMENT & RISK ASSESSMENT

Site address / Location:	**Work Activity:**	**Produced by:**	**Date:**
Knock Hill, Land to the North of Car Park, Nr Brandon, NE66 4LT	Installation & Refuelling of standby generator	Mat Boulton	04/04/19
Client:	**Project:**	**Site ID:**	
NEC	NEC	NHU994	
Persons who this statement affects:			
HGI Generators Ltd operatives on site, contractors and visitors.			

Activity	**Method**
Access onto site	Engineers will book on to site with Airwave NMC Quote site ref number This document will be used as a site induction All engineers will carry the required keys and hold the appropriate security clearances
Emergency contacts	The location of the nearest A&E hospital is: Alnwick Infirmary Infirmary Drive, Alnwick NE66 2NS **Emergency Services Telephone - 999** Should any other emergency occur then the emergency services will be called by telephoning them on 999. All accidents and incidents will be reported to the project manager **Mat Boulton** (Tel: 07795 664 539) HGI Generators Ltd will ensure that they have a trained first aider on site with an adequate first aid box with eye wash facilities.
Welfare Facilities	No welfare facilities are required for these works – personnel will use local facilities Engineers to wear correct PPE during any operations Engineers to carry wipes to clean hands of any residual contaminant after works completed

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Site location & drawings	NEC_NHU994_KXR793_DD RevC.pdf NEC_NHU994_KXR793_GA RevE.pdf			
Customer Known Info - Access	• 24/7 Unrestricted Access • 4x4 only, walk in winter months or ATV if carrying heavy equipment			
Customer Known Info - Hazards	• No known hazards on site			
Operatives On site	2			
Lone working	No			
Equipment	Mechanical hand tools Battery powered hand tools			
Equipment certification checked	Lifting gear – LOLER certs		N/A	
	Electrical Equipment - PAT test certs		Yes	
	Fire extinguishers – Serviced & in date		Yes	
	Other (list)		N/A	
ATV required?	No		ATV risk assessment completed?	N/A

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Description of Works	Refuelling of EE prime power generators
Scope of Works	The engineer in charge will log on with Airwave giving site ID and other details as necessary Prior to starting works, the lead engineer will survey the site for the proposed works and carry out visual inspections to ensure they are familiar with the proposed program of works, method statement & risk assessment. Any additional risks noted on commencement of works will be noted on the additional pages of these RAMS. The lead engineer will ensure that all other engineers working under them are familiar with the RAMS for the site. **General** 1. Provide full RA/MS for approval prior to commencement. 2. Remove all redundant materials, etc and dispose of correctly 3. The site area will be adequately fenced/barrier to prevent the public and other site users from the works 4. The site will be kept in a tidy and orderly fashion at all times and due consideration will be given to the protection of third party property. 5. A clean and complete first aid box will be located within the operative's vehicle. 6. A fully serviced fire extinguisher will be located within the operative's vehicle. 7. A spillage kit will be located within the operative's vehicle. 8. All operations undertaken are strictly in accordance with current health and safety legislation supplemented by our company Health and Safety policy. 9. Prior to works commencing RAMS to be reviewed and completed by HGI this will act as a site induction. 10. Prior to works commencing any over-head hazards will be assessed. 11. Prior to works commencing any slip/trip hazards will be assessed. 12. Prior to works commencing all necessary signage/traffic management will be placed. **Scope of works – installation** 1. Ensure delivery route is clear and free from obstructions and overhead hazards 2. Use 4x4 HAIB vehicle to access site 3. Land generator in required position 4. Bolt generator into position 5. Assemble LPG store 6. Bolt into position 7. Connect LPG store to local earth point 8. Connect Generator housing to local earth point 9. Test and record earth resistance at both locations 10. Install LPG hose kit from LPG store to generator 11. Install LPG change-over kit and hoses in LPG store 12. Install DC power cables from generator to battery housing 13. Install generator alarm cables 14. Connect & test all cables 15. Connect LPG cylinders

16. Carry out a leak detection test
17. Carry out a pressure drop test
18. Test generator on load as per handover pack requirements
19. Test alarms back to NMC
20. Test alarms back to HGI
21. Leave set in auto
22. Check remainder of site and equipment site for any damage or defects
23. Report any issues back to HGI
24. Take photos of generator and surrounding area
25. Complete site visit report
26. All surplus materials to be disposed off-site
27. Site will be left tidy

Scope of works – LPG fuel delivery

1. Drivers must be trained to deliver LPG cylinders and know how to deal with leakage or spillage
2. Vehicles must carry 2x suitable fire extinguishers
3. LPG cylinders must be stacked upright
4. Vehicles must have adequate ventilation
5. Ensure cylinders are secured in vehicles
6. Do not carry more than 333kg in LPG cylinders
7. 47kg cylinders must only be moved using suitable manual handling aids (ie LPG cylinder trolley)
8. Ensure valves are closed prior to moving cylinders
9. Position cylinders on flat and level ground
10. Check for leaks after connection
11. Ensure valves are closed on empty cylinders
12. Ensure empty cylinders are marked as such so as they are not deployed to another site; cylinder tare weights can vary greatly

LPG Safety

i) Cylinder installation diagram

See diagram below for separation distances required when installing LPG cylinders:

LPG safety - cylinder installation diagram

ii) Transport of LPG cylinders on vehicles

See guidance notes below on requirements for carrying LPG cylinders on vehicles

GN27 cariage of gas cylinders on veh

BCGA carriage of small qtys of gas cyli

iii) Manual handling of LPG cylinders

Manual Handling of LPG Cylinders.doc

iv) LPG delivery and collection note

Drivers must complete a delivery and collection form when moving cylinders so as the emergency services have a record of what is being carried in the event of an accident.
Example note embedded below:

LPG Delivery & Collection note.doc

v) LPG Risk Assessment

Risk assessment embedded below:

Risk assesment - LPG cylinders.doc

	Site issues / Emergency Procedures 1. In the event of an incident stop work immediately 2. The area will be made safe and barriered off. 3. No smoking or naked flames. 4. The area will be evacuated of all non-essential personnel and marshalled to prevent access by any member of the Public. 5. Evacuate workers and others to a safe distance. 6. Keep vehicles and members of the public away from the area. 7. Report all damage to Airwave NMC and HGI 8. Inform owners of adjacent services if there is a risk of damage or incident 9. Ensure that there are no sources of ignition such as hot works or electrically operated tools within close proximity. 10. If any such hazards exist, then remove them immediately. 11. Prevent any further hazards mentioned above being introduced by Staff or members of the Public 12. Call 999 if required 13. If a problem occurs at any time the issue will immediately be reported to the Airwave NMC and both HGI and NEC project managers or representative 14. Record/Photograph Where the product has gone 15. Record information on any water courses which could be affected 16. Record whether the product is still leaking 17. Record what immediate action is taken to contain any leak 18. Record address where the incident has occurred including customers name and number.

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PPE Requirements	All Tasks	Safety Footwear (to BS EN 345) Hi-Vis Vest/Jacket (to BS EN 471)
	Refuelling	Gloves (to BS EN 420) Goggles / safety glasses (to BS EN 166)
COSHH Materials To Be Used Check List	LPG (fuelling)	 Propane.docx  Calor propane safety data sheet re\
	Engine oil (Engine checks)	 C015 Turbolene 15W40.doc
Special Requirements Permits Req'd etc.		

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Induction Register

I have read and understand the points highlighted is this RAMS and agree to comply with all requirements

Name	Company	Position	Signature	Date

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Persons at Risk: All HGI Generators Ltd operatives on site, contractors and visitors.

Hazards Identified	Risks Identified	Risk Rating L	S	R	Control Measures	Residual Risk
General Site Safety	All sites have the potential to be dangerous places, as well as the specific hazards that are dealt with individually, several rules apply. Unauthorised persons entering work site (including children)	**3**	**3**	**9**	Adequate fencing/barriers surrounds the site to prevent unauthorised entry. Safety signs are displayed warning all persons of the dangers inherent in site works. Supervisors to ensure that all signage displayed is clean and visible at all times.	**3**
Vehicles and mobile plant	Vehicles manoeuvring without clear vision Damage to property or materials. Failure to adequately segregate pedestrians, vehicles and plant. Risk of major injury or incident by pinning, crushing or trapping of persons	**3**	**5**	**15**	PPE to be worn at all times Site induction training will be given to all HGI Generators Ltd personnel on site and Toolbox talks to address specific problem areas will be delivered by on site supervisor. Site induction training to include working with or near vehicle movement (use this RAMS) Parking zones and delivery vehicle off-loading points established.	**5**
Towing	Trailer and/or trailer accessories becoming loose or un-hitched resulting in accidents.	**3**	**3**	**9**	Supervisors must ensure that all staff required to tow are suitably trained in the operation and are appropriately licensed. Drivers should always check the trailer for damage and the security of the hitchings before any journey. Trailers should be serviced at regular intervals and any relevant paperwork should be made available. Drivers who passed their car test before 01/01/1997 have entitlement B+E, C1+E and are entitled to drive vehicles of G.V.W. up to 7500kg and tow any trailer provided the combined G.V.W. of towing vehicle and trailer is less than 8250kg. Drivers who passed their car test after 01/01/1997 can drive a vehicle of G.V.W. of 3500kg with less than 8 seats and can tow any trailer with a G.V.W. of up to 750kg provided: 1. The G.V.W. of the towing vehicle is 2x the G.V.W. of the trailer. 2. The combined G.V.W. of towing vehicle and trailer is <3500kg	**5**

Slips, trips and falls	Uneven surfaces, discarded materials, inappropriately stored materials, debris from excavations, etc. Discarded materials, packaging, wrapping, etc left in the work area or path to and from the work area or in the path of other users of the site.	**3**	**3**	**9**	The site will be checked prior to commencement of works and all items listed will be removed or repaired where necessary. Discarded packaging and debris to be cleared to prevent slips and trips.	**3**
Manual handling	Lifting and carrying items of equipment, materials, etc. Loading and offloading vehicles, laying using wheelbarrows, etc.	**3**	**3**	**9**	Manual handling task will be reduced as far as is reasonably practicable. Operatives will be trained and instructed of manual handling techniques. Specific manual handling tasks will be individually assessed and mechanical aids used where necessary. Two-man lifting could also be considered. Suitable gloves are to be worn when moving items with sharp edges. Site induction to include manual handling.	**3**
Eye injuries	Eye injuries caused by fragments and particles emitted from drilling, cutting or grinding materials, and also from cutting tensioned strapping from bundles of components.	**3**	**3**	**9**	Eye protection to be worn at all times when operating all portable tools that generate particles and when cutting tensioned strapping on bundles of materials. Ensure that all users are provided with the correct grade of eye protection.	**3**
Work at height	Falls from height Objects falling from height	**3**	**5**	**15**	All personnel working at height will wear safety harnesses securely anchored, and follow the HGI Generators Ltd work at height procedure. Personnel to ensure that items of equipment or materials are stored away from roof edges.	**5**

Hazardous substances	Dangerous chemical or infectious substances in the soil can cause injury and disease Bowsers will be used to carry fuel. This poses a risk of spillage and contamination to the local environment and watercourses.	**3**	**3**	**9**	COSHH assessments are to be carried out on all substances in use to determine the precautions to be taken whilst using the product. This may include the wearing of the correct PPE. A separate COSHH register will be available for all hazardous substances, used on site. All employees trained in the use and hazards of substances, etc during induction and ongoing training based on the COSHH assessment. No hazardous material or substance will be allowed on site until a suitable assessment has been made and advised to the main contractor. Any leakage should be contained within the bowsers reservoir which should be 110% of the fuel carried. Spill kits will be carried and any spillage will be reported immediately to the immediate supervisors.	**3**
Flammable substances	The bowsers may carry derv which when pressurised or contaminated with other accelerant fuels can ignite and catch fire. This can result in explosions and severe fires	**4**	**4**	**16**	All bunded fuel bowsers to be fitted with expansion outlets to prevent build-up of explosive gases. Machines only to be refilled by trained operators or fitters. Spill kits and fire extinguishers will be available at all times. Spillages and fuel smells to be reported to site supervisor immediately	**6**
Occupational diseases	Skin damage may occur during handling, cutting, using and preparing of bitmac/asphalt, concrete and concrete products, sealants, stainless and mild steel products. Potential inhalation of dust, fume, vapour from work activities.	**3**	**3**	**9**	All operatives will be required to ensure that personal hygiene is maintained to a high standard during this type of work and to ensure that hands are washed before eating and drinking and before and after using the toilet. PPE will be issued as required and an adequate supply of warm water and cleanser for washing.	**3**
Electricity	Electrocution of personnel handling damaged live cables. Cables crushed by vehicle impact.	**3**	**5**	**15**	Use of battery tools only if required All precautions will be taken in order to work in a safe manner during darkness hours.	**5**

Weather conditions	Potential for injury when working during the hours of darkness Potential for injuries when inclement weather conditions prevail: sun, rain, snow and ice and high winds. Lightning conditions	**2**	**3**	**6**	Attend site in daylight hours only Supervisors will be responsible for ensuring all personnel have wet weather and cold weather clothing when required.	**3**
Personal Protective clothing	Possibility of injuries from failure to wear correct PPE	**2**	**3**	**6**	All personnel are issued with all of these protective items and will require to wear them where the risk assessments dictates. Site induction to include information regarding PPE and the requirement to wear this equipment.	**3**
Heat	Potential for injury to exposure to heat, burns to the skin, toxic fumes.	**2**	**3**	**6**	Hot works permits to be issued when required, gloves to be worn when using heat guns for applying heat shrink. Areas to be well ventilated.	**3**
Safety signs and signals	Potential for injury to persons due to lack of information.	**2**	**3**	**6**	All safety signs and signals will be displayed as required.	**3**
Working close to existing services	Shock risk to Operatives and Engineers	**2**	**4**	**8**	Survey site prior to work commencing Use trained operatives	**4**
Open excavations	Fall risk to Operatives, Engineers, General public	**2**	**4**	**8**	Exclude unauthorized persons from work area Ensure safe means of access/egress Barrier off any excavation works	**4**

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At each site a specific risk assessment must also be completed to address the hazards and risks on that site

Summary of Risks:

- All sites have the potential to be hazardous places in which to work.
- A number of injuries and cases of ill-health may well occur unless the risks from hazards are controlled.
- The control measures which are in place at all sites operated by **HGI Generators Ltd** will be monitored by qualified supervisors and managers.
- Site inductions and tool box talks on specific activities and processes will be provided by the **HGI Generators Ltd** supervisor on site.

Risk Rating Scale		
Likelihood x Severity = Risk		
Likelihood of an Incident(L) 1 = Very Unlikely 2 = Unlikely 3 = Possible 4 = Likely 5 = Highly Likely	Potential the Severity of an Incident (S) 1 = Minor cuts or abrasions 2 = Minor injury requiring medical treatment 3 = Injury requiring time off work or hospitalisation 4 = Major injury resulting in permanent injury or loss of limb/sight 5 = Fatal injury or permanent/total disablement	Residual Risk Rating (R) 1 – 5 = LOW 6 – 10 = MEDIUM 11- 25 = HIGH

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Additional Risks identified

Site address / Location:	**Work Activity Assessed:**	**Assessor:**	**Date:**
Clients Name:	**Project Name:**	**Site ID:**	
Persons at Risk: All HGI Generators Ltd operatives on site, contractors and visitors.			

Hazards Identified	Risks Identified	Risk Rating L	S	R	Control Measures	Residual Risk