

### Risk Assessment Form

Date: 16/March/2017	Assessed by: <input type="text"/>	Checked / Validated* by:	Location: Ctec Energy Ltd Shed 2, East Quay, Newhaven	Assessment ref no 00025/ctec/17	Review date: N/A
Signed.....					
Task / premises: Risk Assessment for Ctec green power network facility at Newhaven port.					

Ref No.	Hazard	Pathway	Consequence	Probability of exposure	Who might be harmed	Existing measures to control risk	Risk rating	Result
1	Emissions to air dust particles:	Wind-blown	Nuisance - dust on cars, clothing, and so on	All waste will be delivered via containers and tipped directly into the waste feed hopper, Emissions including particulate matter exceed European standards.	People living nearby	Emissions from Ctec system exceed all European standards.	Very Low	A
2	Pests: flies on waste could move offsite and affect nearby resident	Airborne	Potential for spread of disease and adverse health impacts on vulnerable people	There will be no waste left unattended.	Ctec & Port staff	No waste will be stored on site; waste will arrive on site and added directly into the system on arrival.	Very Low	A
3	Accidents – waste spillage during delivery.	Delivery and unloading of waste	Waste exposed on the surrounding floor area.	Strictly controlled delivery and clean up procedures.	Ctec staff and delivery personnel	Waste will be tipped directly from lorry to waste feed hoppers. Waste will be contained in a high walled holding area, in the unlikely event of waste spilling onto the floor there will be bunding around the area and the waste will be cleaned up immediately.	Medium	A

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4	Odour from delivery and storage of waste	Wind-blown	Smells carried to nearby residence.	Waste will be put straight into the gasifier	People living and working nearby	All waste arriving will be tipped directly into the system. No waste will be stored on site.	Low	A
5	Risk of waste discharge into the River	Delivery and unloading of waste	Pollution of local environment.	Facility is sited away from the quay side	Local environment	Waste will arrive on a lorry and be transferred directly into the system for disposal.	Very Low	A
6	Detrimental effects on the local environment	Airborne	Pollution of the local environment.	Surrounding area	Local environment	All emissions from Ctec system exceed all European standards	Very Low	A
7	Visible emissions - Smoke	Airborne	Pollution of local environment / adverse health impacts on vulnerable people	Strict control measures and monitoring will prevent any emissions being released into the atmosphere.	People living and working nearby	Emissions from Ctec system exceed all European standards; the system doesn't produce any smoke.	Low	A
8	Noise & Vibration	System running	Annoyance to people living and working nearby	System noise level is less than 70 dB(A)	People living and working nearby	The system has been designed to reduce airborne noise to the lowest practical level and produces very little vibration, all activities are contained within the building.	Low	A
9	Litter/rodents/pests	Waste delivery / storage.	Health hazard	Waste is strictly controlled and there is no storage of waste on site	People living and working nearby	Waste is strictly controlled and when delivered is transferred directly into the system, there is no waste stored onsite.	Low	A

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10	Loading & Unloading lorries.	Waste delivery	Accidents when loading and unloading vehicles	Area for unloading waste will be strictly controlled and cordoned off.	Staff and delivery personnel	All staff to follow Ctec011 manual handling policy- loading and unloading procedures.	Low	A
11	Plant or equipment failure	System running	Breakup of parts could be a potential hazard	Strict control on design and build of the system covers any mechanical or electrical failures.	Ctec staff	The system has been designed and built to rigorous standards and within the requirements of all relevant European standards, FMEA and risk assessment have been carried out to cover any issue with failures in the system to cover all eventualities.	Low	A
12	Fire	System running	Any staff trapped could suffer fatal injury from smoke inhalation / burns.	The system stands and operates in a well protected combustion free area	Ctec Staff	The system is fully sealed and contained when operating. All staff are aware of Ctec fire and evacuation policy.	Low	A
13	Fire in system contaminate water used to fight fire escaping into local river	Natural water flow	Pollution of local environment	Highly unlikely	Local environment	In the unlikely event of a fire within the system any waste would be sealed within the unit and water used to extinguish the fire that could run into the waterways would not be contaminated	Very Low	A
14	vandalism	Deliberate damage	Anyone breaking in to the facility could cause malicious damage to the system	24 hour security of the port would make this very unlikely.	Ctec staff	System is housed in a secure building in the port site which has 24 hour security; the system will also be manned 24 hours per day.	Very Low	A

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15	Hot ducting and flues	System running	Burn injuries from hot pipe work	Highly unlikely	Ctec staff / Visitors	All ducting and flues are lagged with fire retardant material and have warning signage clearly marked	Very Low	A
16	Blockages in system	System running	System failure, Any blockages in moving parts would stop the system from running.	System has been designed to avoid blockages.	Ctec staff	The system has been designed to avoid blockages of moving parts, in the unlikely event of a blockage the system would stop immediately and go into emergency shutdown.	Low	A
17	Increased traffic to port and surrounding areas	Deliveries	Traffic congestion Annoyance to people living and working nearby	No significant effect	People living and working nearby	There will be only 1 delivery per day and 2 deliveries occasional pickups of ash, this will have no significant effect on traffic congestion as the port and surrounding road structure is already geared up for a large amount of traffic.	Low	A
18	Emergency situations. Site emergency/fire/evacuation/first aid response.	Day to day operation	Staff/Visitor injuries due to fire/accidents	Unlikely	Ctec staff / Visitors	First aiders on site at all times/Fire and evacuation plans to be followed.	Medium	A
19	General site noise/traffic/Machinery	Day to day operation	Excessive noise could lead to permanent hearing damage.	Unlikely	Ctec staff / Visitors	Ear defenders are available and worn as and when necessary	Low	A
20	Moving around site	Day to day operation	Possible accidents from moving vehicles and machinery	Unlikely providing site rules are followed	Ctec staff / Visitors	Follow site rules / keep to pedestrian routes / Wear PPE (High Vis) jackets at all times.	Low	A

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21	Trips and slips / Spillages	Day to day operation	Staff/Visitors could slip	Unlikely providing housekeeping policy is followed	Ctec staff / Visitors	Working area to be kept clean and tidy at all times; report/clean up any spillages immediately; follow Ctec housekeeping policy; wear safety shoes/boots when necessary	Low	A

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<b>Action plan</b>				
<b>Ref No</b>	<b>Further action required</b>	<b>Action by whom</b>	<b>Action by when</b>	<b>Done</b>
9	Ensure that Ctec loading and unloading procedure is up to date and covers new system.		<input type="text"/> 30/Oct/17	Yes
10	Ensure that FMEA and Risk assessment are up to date and in line with new system.		<input type="text"/> 02/Nov/17	Yes
11	Ensure that Ctec fire and evacuation policy are up to date		30/Oct/17	Yes
18	Ensure that First aid training for relevant staff if up to date and fire / evacuation plans are up to date		03/11/17	Yes
21	Write new Ctec housekeeping policy for new system		<input type="text"/> 20/March/17	Yes

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