



Lusail Real Estate Development Company

Health, Safety, Security, Environment, Logistics & Quality Department

Lusail Construction Safety Procedural Forms/Checklists – Environmental Risk Assessment Form

Document No LUS-HSE-FM4-446-105.01 Rev 1

Uncontrolled Copy Controlled Copy Date 01- Apr- 2015

COMPANY PROPRIETARY INFORMATION

Prior to use, ensure this document is the most recent revision by checking the Master Document List. To request a change, submit a Document Change Request to the Document Control Representative. Master copy of this document will be maintained by the LREDC QA/QC Manager. Not controlled if printed.

Environmental Risk Assessment Form (Example)

CONTRACTOR/ OPERATOR		DATE:	REVISION:
PREPARED BY		POSITION	CONTACT DETAIL: EMAIL ADDRESS:
CONSULTANT		CLIENT OVERVIEW	LUSAIL REAL ESTATE DEVELOPMENT / QD

Methodology

- 1. Desk study:** Review drawings, understand nature of project, the construction and / or operation processes, their aspects and their potential effects. Note existing features, e.g. current occupation, geography especially drainage, infrastructure and surrounding built environment. Check for existence of designated sites, heritage features, e.g. ancient monuments.

- 2. Site visit:** Identify potential receptors of environmental harm or damage and assess the significance of construction and / or operational effects on them. Effects are significant if they have the potential to cause damage
 - particularly in regard to pollution of controlled waters
 - harm or damage resulting in costs to remedy
 - complaint from any stakeholder including the general public

- 3. Environmental risk rating:** assess the rating

- 4. Mitigation Measures:** Identify the measures required to minimize construction and / or operational effects and where baseline and construction and / or operational stage surveys should be carried out.

Desk Study Notes:

- *Received information, knowledge, support & good practice from Lusail /QD ENV department in the Bi weekly ENV Focus Meeting and the Lusail /QD OCEMP/ OOEMP.*
- *Liaising with competent personal from all departments relating to Desk study.*
- *Utilize websites to gather information such as Ministry of Environment –www.moe.gov.qa/english*
- *Work to the site Environmental Management Plan (CEMP and / or OEMP) approved by Consultant/Client*

Potential Targets	P – Personnel engaged in construction /operational processes O – Others on or off the site, e.g. other contractors, visitors, neighbors, passersby, road traffic E – Environmental receptors e.g. land, air, water, flora and fauna, geological and historical features
Effects Risk	F – Frequency C – Consequence R – Risk resulting from construction and / or operation effects.

Environmental Aspect of Construction Works and / or Operation	YES NO NA	Targets			Potential Effects	Effects			Mitigation/ Control Measures/ Consent requirements	Risk of Residual Effects
		P	O	E		F	C	R		
WASTE Significant waste streams with potential for minimization. Opportunities for greater sustainability.	YES	√	√	√	<i>Increase in rodent/pest/odor from unmanaged waste- mix of hazardous, inert & food waste. Resulting out of not following Lusail and / or QD QCS specifications due to unlicensed waste supplier.</i>	3	3	9	<i>Follow Lusail and / or QD approved OCEMP/OOEMP Waste M. Procedures; Provide training on waste segregation. Approved waste removal contractor. Waste minimization strategies. Pest control. Always keep hazardous waste separate to general waste.</i>	1 x 3: 3
NUISANCE – noise, vibration, visual, dust and odor. Existing and potential level. Combined to Sensitive receptors. Potential sources: e.g. piling; Workplace issues; earthworks, dirt roads, sewage, litter; all kind of operations	YES	√	√	√	<i>Negative visual appearance from the absence of hoarding around the development plots; Congestion due to inadequate provision of parking space. Nuisance derived from noise caused by construction/ machinery/ operations ; The surrounding community/building structural integrity may be affected by vibration caused by heavy machinery. Visual/breathing difficulty due to dust arising from traffic/ construction / operation. Hygiene problems, soil, water contamination caused by odor and possible overflow of septic tank</i>	3	3	9	<i>Continual monitoring of site in terms of Noise, Vibration, visual, dust and odor. Noise reduction by maintaining standard control on machinery; Have an updated traffic management plan and review adequate car park allocation. Dust control and control from construction work and / or operation . Control and monitor septic tank to prevent overflowing. Always consider communities that can be affected by the vibration derived from works and / or operations</i> <i>Follow Lusail and / or QD approved OCEMP/OOEMP</i>	1 x 3: 3

					<i>that has been mismanaged.</i>					
WATER AND EFFLUENTS Existing drainage and effects of construction and / or operation. Site water disposal, dewatering activities. COSHH controls.	YES	√	√	√	<i>Land, water contamination & health concerns due to inadequate discharge of foul sewage.</i> <i>Land contamination and poor visual appearance caused by undesignated concrete wash out area.</i> <i>Water contamination/ water pollution and loss of aquatic life due to settlement tank not available or poorly maintained.</i>	3	3	9	<i>Compliance with foul water discharge directives ; adequate management of septic tank.</i> <i>Provide designated concrete wash out area for construction activities.</i> <i>Control dewatering; use adequate designed settlement tank and monitor discharge.</i> <i>Follow Lusail and / or QD approved OCEMP/OOEMP</i>	1 x 3: 3
MATERIALS AND FUELS, OILS AND COSHH STORAGE Material and fuels supply with potential for pollution and /or substitution.	YES	√	√	√	<i>Land contamination due to poorly stored liquid material.</i> <i>Land /water contamination in surface water and site drainage.</i> <i>Land/water contamination due to lack of spill response equipment.</i> <i>Land/water contamination due to poor housekeeping</i>	3	3	9	<i>Adequate storage of oil/fuel;</i> <i>Appropriate spill response equipment.</i> <i>High standard of housekeeping including Waste Management. COSHH and MSDS Training given to personnel.</i> <i>Follow Lusail and / or QD approved OCEMP/OOEMP</i>	1 x 3: 3
ECOLOGY, ARCHAEOLOGY & BUILT ENVIRONMENT Designated sites, existing flora and fauna, noxious weeds. Listed sites and structures, archaeology.	NA				N/A				N/A	
PLANT & EQUIPMENT Traffic movements, setting, site access, pedestrians, parking	YES	√	√	√	<i>Water, land, air contamination due to leakage of oil or fuel containers;</i> <i>heavy black CO2 emissions.</i>	3	3	9	<i>Keep machinery adequately maintained, fit for purpose and in safe condition;</i> <i>regular monitoring.</i> <i>Follow Lusail and / or QD approved OCEMP/OOEMP</i>	1 x 3: 3
RESOURCES AND ENERGY USE Scope for reductions and efficiencies	YES	√	√	√	<i>Wastage of energy/resource consumption causing increased cost, Air pollution and increased CO2 emissions.</i>	3	2	6	<i>Record energy consumption on site and provide means of saving energy.</i> <i>Follow Lusail and / or QD approved OCEMP/OOEMP</i>	1 x 2: 2

CONTAMINATED LAND Former Land use, existing condition, legacy.	YES	√	√	√	<i>Workers/fauna/flora/residents being exposed to health concerns both acute and chronic. Contaminated land affecting ground water.</i>	2	3	6	<i>Plan to deal with contaminated land. Legacy register; GW and Air monitoring; Inform the Lusail and / or QD Env. Department. Employ accredited, specialized hazardous waste treatment comp. to remove and dispose of the soil adequately. Follow Lusail and / or QD approved OCEMP/OOEMP</i>	1 x 3: 3
COMMUNITY RELATIONS , etc. Proximity to housing, schools, hospitals, parks, delicate installations etc. site security, community involvement.	YES	√	√	√	<i>Environmental concern having one of the above mentioned potential effects.</i>	3	3	9	<i>Notify and communicate to Lusail and / or QD ENV department of any ENV concern that are directly/indirectly affecting the contractor / operator . Coordination with other stakeholders Follow Lusail and / or QD approved OCEMP/OOEMP</i>	1 x 3: 3
TRAINING Site specific training requirements	YES	√			<i>No or not enough training provided to workers/ operators resulting in negative env. culture and any hazards. Workers, Contractor and or Operator and client will directly and indirectly be at risk.</i>	3	3	9	<i>Provision of regular, adequate training to workers and / or operators. These need to be equipped to handle any environmental matter. Continuous Env management system being followed and working towards a positive ENV culture. Follow Lusail and / or QD approved OCEMP/OOEMP</i>	1 x 3: 3
Other aspects										

Signature of Contractor and / or Operational HSE Manager
Department

Accepted by Lusail and / or QD Environmental

Date:.....

Date:

Risk resulting from construction effects = Consequence times Frequency

RISK LEVEL ACTION

Acceptable	No further preventative action. Consideration shall be given to more cost-effective solutions or improvements that impose no additional cost burden. Monitoring required ensuring that controls in place are properly maintained.
Unacceptable	Work shall not be started or continued until the risk level has been reduced to an acceptable risk level. While the control measures selected shall be cost-effective, legally there is an absolute duty to reduce the risk, this means that if it is not possible to reduce the risk even with unlimited resources, then the work shall not be started or shall remain prohibited.

Do not start work if risk is Unacceptable

		Frequency			
		0 - Almost no probability	1 - Small probability	2 - High Probability	3 - Almost Certain
Consequence	0 - No Environmental Impact	0	0	0	0
	1 - Minor Impact	0	1	2	3
	2 - Major Impact	0	2	4	6
	3 - Catastrophic Impact	0	3	6	9