Egdon Resources U.K. Limited

Standard Rules SR 2015 No.1
Environmental Permit Application

North Kelsey Wellsite

SR 2015 No.1 Generic Risk Assessment

January 2020

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Please refer to this guidance page to help you assess the risks associated with your activity

Data and Information

Receptor: Receptors to consider should include: atmosphere, land, surface waters, groundwater, humans, wildlife and their habitats. A single receptor may be at risk from several different Sources and all must be addressed.

Source: The Source of hazard will be the activity or operation taking place for which a particular hazard may arise.

Harm: Harm may arise when a specific hazard is realised.

Pathway: Pathways are the routes or means by which defined hazards may potentially realise their consequences at the receptors.

Judgement

Likelihood of exposure: Likelihood of exposure is the likelihood of the receptors being exposed to the hazard.
Example definitions:
High – exposure is probable: direct exposure likely with no / few barriers between hazard source and receptor;
Medium – exposure is fairly probable: feasible exposure possible - barriers to exposure less controllable;
Low – exposure is unlikely: several barriers exist between hazards source and receptors to mitigate against exposure:
Very Low – exposure is very unlikely: effective, multiple barriers in place to mitigate against exposure

Magnitude of potential consequences: The magnitude of potential consequences of a hazard being realised may be actual or potential harm. This will be on a high/medium/low/very low score using attributes and scaling to consider 'harm'.

Risk Rating: The risk rating is determined by combining the likelihood of exposure with the magnitude of the potential consequences.
Assign 1 of 4 categories: high, medium, low and very low.
High risks require additional assessment and active management
Medium risks require additional assessment and may require active management/monitoring
Low and very low risks require periodic review.

Action by permitting

Risk management: Risk management involves breaking or limiting the source-pathway-receptor linkage to reduce risk. If minimum distances are set explain the basis of the distance (e.g. modelling)

Generic risk assessment for standard rules set number SR2015 No1

Standard facility:	Management of extractive waste from onshore oil and gas exploration activities including well drilling, construction and coring using water and or oil based drilling fluids, fall off well testing, acid wash and decomissioning but excluding hydraulic fracturing.
Location:	North Kelsey Wellsite
Risk assessment carried out by:	Environment Agency / Egdon Resources U.K. Limited (20/01/20)
Date:	07-Jan-19

The scope of the standard rules is defined by the following risk criteria and with reference to Waste Management Plan (WMP3) and Mitigation statements:	
Sensitive receptors (people):	Not within 200 metres of a sensitive receptor
Sensitive receptors (conservation and heritage):	Not within 200 km of a European site
Emissions to water:	Not within 10 metres of any watercourse; not within a groundwater source protection zone 2, or where a source protection zone has not been defined then not within 250 metres of any well, spring or borehole used for the supply of water for human consumption or food production purposes. This must include private water supplies.
Emissions to air:	Not within an AQMA
Activity and scale:	Permitted activities are the storage and handling of extractive waste arising from prospecting for oil and or gas with well drilling, construction, coring, well-testing, acid wash and decomissioning only. Exploration activities are limited to use of non-hazardous substances in drilling operations with the exception of dilute inorganic acids used to restore the wellbore porosity and of any hydrocarbons or drill cuttings which are contaminated with hydrocarbons produced which would be hazardous waste and will not involve a waste facility.
Key restrictions:	These rules do not apply to sites with more than one operator. These rules do not apply to sites within Flood zone 3
Emissions:	These rules do not allow any point source emission into surface waters or groundwater.

Data and information				**Judgement**				**Action (by permitting)**	
Receptor	**Source**	**Harm**	**Pathway**	**Likelihood of exposure**	**Magnitude of potential consequences**	**Risk rating**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**

People living in close proximity to the site (>200m).	Release of pollutants; particulates / dust from permitted activities.	Reduction in air quality, damage to human health, nuisance	Via air	Low	Low	Low	Activities that could produce dusts or particulates to be managed under condition 3.2.1 of permit. Short-term nature of activity.	Activities not permiited within an AQMA. Waste will be stored in covered containers. Screening activities to be managed so as not to allow dust to be blown off site, (check wind direction etc). Risk management measures detailed in Section 7 WMP3.	Low
People living in close proximity to the site (>200m).	Release of natural gas (methane)	Harm to human health	via air	Low	Low	Low	Low potential for release of natural gas as the drilling mud weight is sufficient to prevent uncontrolled gas release at surface.Condition 3.2.1 applies. Short-term nature of the activity.	Risk management measures detailed in Section 7 WMP3, a blow out preventer will be installed on each well and can be closed to seal off the well in the event a gas release is suspected.	Very Low
People living in close proximity to the site (>200m).	Waste and litter in surrounding area, mud on highways	Nuisance, loss of amenity, road traffic accidents	via air, or with vehicles	Low	Low	Low	Waste to be kept in covered containers; little or no litter expected to be generated on site. Any litter produced can be collected before leaving site boundary. Wheel wash facilities can be installed.	Carry out daily site checks to ensure waste and litter contained within site boundary; vehicles to be checked before leaving site for mud, use wheel wash if necessary.	Low
People living in close proximity to the site (>200m).	odour	Nuisance, loss of amenity	via air	Low	Low	Low	Permitted activities have low odour potential. Any odour likely to disperse before reaching receptors.	Condition 3.3 applies.	Low
People living in close proximity to the site (>200m).	noise	Nuisance, loss of amenity	via air	Medium	Low	Medium	The drilling operation will generate noise (covered by the Planning permission). The permitted activities unlikely to generate increased noise levels over short term.	Condition 3.4 applies.	Low

People living in close proximity to the site (>200m).	flooding	Flood water running off site	via land	Low	Low	Low	Unlikely that surface water would leave site. Site is not in a flood zone 3.	Surface water management measures will be in place, containment ditches, valves to isolate surface water drainage system, options to tanker water off site. Risk management measures detailed in Section 7 WMP3.	Low
People living in close proximity to the site (>200m). Livestock.	All on site hazards	Bodily injury	direct contact	Very Low	Medium	Low	Site security measures; perimeter fencing, locked gates	Site must be secure; site checks undertaken to identify breaches of perimeter fencing.	Low
People living in close proximity to the site (>200m).	Fire (accidental or arson / vandalism)	Smoke inhalation; water run off	via air or land	Very Low	Low	Low	Site safety procedures and security measures minimise risk of fire	Site must be secure; site checks undertaken to identify breaches of perimeter fencing. An accident management plan will be in place.	Low
European sites in close proximity of the site (>200m)	Release of pollutants	Acidification / eutrophication, damage to sensitive species	Via air, land or water	Low	Low	Low	Activities will not be carried out within 200 metres of a European designated site. There are no point source releases to air, land or water, limited opportunity for a pathway to develop to the sensitive receptor.	Condition 3.2 applies.	Low
All surface waters close to and downstream of site	Spillage of liquids, waste material, contaminated rainwater run-off	Deterioration of water quality	Direct run-off from site across ground surface, via surface water drains and ditches. Indirect run-off via the soil layer	Low	Low	Low	Adherence with risk management meaures detailed in WMP3.	Risk management measures describbs in Section 7 of WMP3 in relation to site containment will be adhered to. Including impermeable membrane under site, secondary containment around storage vessels, drainage system thet can be isolated.	Low

Groundwater	Spillage of liquids, contaminated rainwater run-off	Contamination of public or private water supplies requiring treatment of water or closure of borehole	Transport through soil to groundwater.	Low	Low	Low	Adherence with risk management meaures detailed in WMP3.	Risk management measures describds in Section 7 of WMP3 in relation to site containment will be adhered to. Including impermeable membrane under site, secondary containment around storage vessels, drainage system thet can be isolated. Activities not permitted in groundwater source protection zones 1 or 2.	Low
Groundwater	Muds or fluids used in drilling the well, hydrocarbons	Contamination of groundwater	Loss of well integrity causes loss of materials to formation	Low	Low	Low	Well integrity checks in place, inspected by Independent Well Inspector	Continual monitoring of well integrity by pressure and formation tests.	Low

	Probability			
Consequence	Very Low	Low	Medium	High
Very low	Very Low	Low	Low	Low
Low	Low	Low	Medium	Medium
Medium	Low	Medium	Medium	High
High	Medium	Medium	High	High