Draft generic risk assessment for draft standard rules set number SR2009No09

Standard Facility:	Waste operation: Landspreading Mobile Pland standard rules
Location:	Applies to all potential locations.
Risk assessment carried out by:	Environment Agency
Date:	16th February 2009

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - The storage and recovery of waste by landspreading (R13, R0) .
Parameter 2	Permitted wastes - biodegradable waste suitable for landspreading.
Parameter 3	Maximum quantity of waste stored limited to 3000 tonnes at any one time
Parameter 4	No point source discharges to controlled waters or groundwater
Parameter 5	The activities may be carried out within 500 metres of a European Site or a Site of Special Scientific Interest (SSSI).
Parameter 6	The activities must not be carried out within 10m of a watercourse
Parameter 7	The activity must not be carried out within 250 metres of a spring, well or borehole supplying water for human consumption or food production or 50 metres of a spring, well or borehole supplying water for other purposes
Parameter 8	The activity may be carried out in an SPZ 2 or 3
Abbreviations:	SR - Standard Rule

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**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).**
Local human population	Releases of airborne dusts/ particulate matter	Harm to human health - respiratory irritation and illness.	Air transport then inhalation	Low	Medium	**Low**	Permitted waste types are spread on land and have a low potential to produce bio aerosols, and particulate matter.	Permitted waste types are spread on land and have a low potential to produce bio aerosols, and particulate matter.	Low

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Local human population	As above	Nuisance dust on cars, clothing etc.	Deposition from air	Low	Medium	**Low**	As above	As above and SR .	Low
Local human population	Fugitive releases; litter	Nuisance loss of amenity and harm to pet health	Transport through air	Low	Low	**Low**	No litter in waste being spread	As above - appropriate measures may include litter picking affected areas/ rejection of waste loads.	Low
Local human population and local environment.	Fugitive releases; litter and mud on local roads	Nuisance, loss of amenity, risk of accident	Vehicles entering and leaving site	Medium	Medium	**Medium**	Road safety. Tractors/ spreaders trailing mud and debris from fields	As above. Appropriate measures include clearing the waste, road sweeping affected area, following COGAP -timeliness of spreading.	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Medium	Medium	**Medium**	Local residents often sensitive to odour, permitted waste types have medium odour potential depends on waste type and prevailing wind direction	SR - emissions shall be free from odour…. SR require an odour management plan. Appropriate measures could include sub surface injection for odorous wastes or incorporation as soon as practical. Odorous waste not stored within 250m of a residential property or workplace.	Low

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Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Medium**	Local residents often sensitive to noise and vibration.	SR - emissions shall be free from noise and vibration..... SR (if required) - noise and vibration management plan.	Low
Local human population and local environment	Scavenging birds and animals	Harm to human health , nuisance, loss of amenity	Transport through air	Low	Medium	**Low**	Permitted waste types are unlikely to attract scavenging animals	SR - Management System. Appropriate measures could include removal of waste/ incorporation of waste..	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Medium	Medium	**Medium**	Some potential for pests	As above	Low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Medium	Medium	**Low**	Permitted waste types are stored securely prior to landspreading.	SR - accident management plan (will include flood risk management).	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Low	**Low**	Only a low magnitude risk is estimated for landspreading operations	SR - activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access).	Low

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Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Low	**Low**	Only a low magnitude risk is estimated.	As above. SR - accident management plan (will include fire and spillages).	Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or fire fighters. Pollution of water or land.	As above.	Low	Low	**Low**	As above.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	Medium	**Medium**	No point source emissions to water are permitted, but there is potential for run-off from landspreading activities particularly during heavy rain.	SR-distance criteria of 10metres from a watercourse. No emissions to watercourse allowed under permit. All liquid wastes require secure storage.	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Medium	**Medium**	There is a medium risk of magnitude	As above	Low

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Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	Medium	**Medium**	No emissions are permitted but permitted wastes have potential to cause pollution.	SR - Waste shall not be spread within 250 metres of a spring, well or borehole supplying water for human consumption or food production.	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	Permitted wastes are inert solid wastes	SR. Protection of groundwater, no spreading in groundwater SPZ1. Additional risk assessment required if in an groundwater SPZ 2 to be approved by EA before operations commence.. SR table 3.1 Secure storage of wastes.	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur	SR - fugitive emissions of substances....SR - the operator shall maintain and implement a fugitive emissions management plan.	Low
Soils	Direct application to land	Deterioration of soil, damage to soil structure or build up of contaminants in the soil	Direct application	Medium	Medium	**Medium**	Permitted wastes may contain contaminants	SR wastes must be spread in accordance with the deployment form and any waste spread shall not damage the soil structure or cause the unacceptable build up of potentially toxic elements in the soil. Additional assessment of waste spread from table 2.3B is carried out.	Low
Protected nature conservation sites - European sites and SSSIs	Deterioration of site through toxic contamination, nutrient enrichment, habitat loss, siltation, smothering, disturbance and	Harm to protected site through toxic contamination, nutrient enrichment, disturbance etc.	Any	Medium	Medium	**Medium**	Dust, ammonia volatilisation, direct application, run off from fields etc	SR - fugitive emissions of substances....SR - the operator shall maintain and implement a fugitive emissions management plan. At 500 metres or above, the potential hazards from the permitted activities pose a low risk to the broad sensitivity of species and habitats groups. Below 500 metres additional risk assessment is required and the relevant conservation bodies are	Low