

**Generic risk assessment for standard rules set number SR2009No3 v3.0**

<b>Standard Facility:</b>	Low Impact Part A Installation for the production of Biodiesel
<b>Location:</b>	Applies to all potential locations.
<b>Risk assessment carried out by:</b>	Environment Agency
<b>Date:</b>	21-Jun-10

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

- Parameter 1 Permitted activities - The operation of a Part A Low Impact Installation for the production of biodiesel under S4.1 A (1) (a) (ii) of Schedule 1 of the EP Regulations.
- Parameter 2 Permitted raw materials and wastes are limited to new and waste vegetable oils and rendered animal fat.
- Parameter 3 The total quantity of raw materials and waste that can be accepted at an installation must not exceed 2,000 tonnes per year.
- Parameter 4 The activities must not be carried out on or immediately adjacent to a European Site, SSSI, National Nature Reserve, Local Nature Reserve or Ancient Woodland.
- Parameter 5 There must be no direct discharge of aqueous waste within 10km upstream of a European Site, or a SSSI; within 100 metres upstream of a National Nature Reserve, Local Nature Reserve or Ancient Woodland; or within a National Park.

Abbreviations: SR - Standard Rule  
 EP Regulations - The Environmental Permitting (England & Wales) Regulations SI 2010 No. 675  
 LII - Low Impact Installation  
 SSSI - Site of Special Scientific Interest

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 particulate matter (dusts) and volatile organic compounds (VOCs).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Low	Low	Low	The installation must comply with the LII criteria without having to rely on active abatement for releases to the environment outside of any buildings. There is low potential for exposure if anyone is living or working close to the site (apart from the operator and employees)	SR - activities must be operated in accordance with LII criteria, SR - emissions of substances not controlled by emission limits.... SR (if required) - emissions management plan.	Very Low
Local human population	As above (dust)	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Low	Low	Low	Local residents often sensitive to dust but there is low potential for exposure.	As above	Very low

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Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	Low	The installation would not be considered as low impact if it could give rise to an offensive odour outside the site boundary. Local residents often sensitive to odour but there is low potential for exposure.	SR - activities must be operated in accordance with LII criteria, SR - emissions shall be free from odour.... SR (if required) - odour management plan.	Very Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Low	Low	Low	The installation would not be considered to be low impact if it could give rise to noise noticeable outside the site boundary. Local residents often sensitive to noise and vibration but there is low potential for exposure.	SR - activities must be operated in accordance with LII criteria, SR - emissions shall be free from noise and vibration..... SR (if required) - noise and vibration management plan.	Very Low
Local human population and local environment	Flooding of site	If materials are washed off site they may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	Low	LII criterion requires that satisfactory containment measures to prevent fugitive emissions to surface water, sewer or land are in place and adequately maintained at the installation at all times. This requirement applies to all substances present on site and in any quantity. Materials washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	SR - activities must be operated in accordance with LII criteria, SR - management system (will include flood risk management).	Low
Local human population and / or livestock after gaining unauthorised access to the installation	All on-site hazards: materials; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	Medium	LII criterion requires that satisfactory containment measures to prevent fugitive emissions to surface water, sewer or land are in place and adequately maintained at the installation at all times. This requirement applies to all substances present on site and in any quantity so only a medium magnitude risk is estimated.	SR - activities must be operated in accordance with LII criteria, SR - activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access).	Low
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.	Low	High	Medium	LII criterion requires that satisfactory containment measures to prevent fugitive emissions to surface water, sewer or land are in place and adequately maintained at the installation at all times. This requirement applies to all substances present on site and in any quantity so only a medium magnitude risk is estimated.	As above. SR - management system (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	High	Medium	The installation intrinsically has a low environmental impact. Risk of accidental combustion of materials is moderate.	As above	Low
All surface waters close to and downstream of site.	Spillage of liquids, contaminated rainwater run-off from materials 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	Low	Low	LII criterion requires that satisfactory containment measures to prevent fugitive emissions to surface water, sewer or land are in place and adequately maintained at the installation at all times. This requirement applies to all substances present on site and in any quantity so only a low magnitude risk is estimated.	SR - activities must be operated in accordance with LII criteria, SR - All liquids shall be provided with secondary containment. SR - Substances from point source emissions to water or air shall not be released at a rate that is greater than that determined as "insignificant", as set out in the Environment Agency's H1 Environmental Risk Assessment, Version 2.0, April 2010, Annexes (d) and (f). Run-off restricted by SR on emissions of substances not controlled by emission limits.	Very 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	Low	Low	LII criterion requires that satisfactory containment measures to prevent fugitive emissions to surface water, sewer or land are in place and adequately maintained at the installation at all times. This requirement applies to all substances present on site and in any quantity so only a low magnitude risk is estimated.	As above	Very low
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	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above	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.	Low	Medium	Low	LII criterion requires that there must be no planned or fugitive emission from the permitted installation into the ground.	As above	Very low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastrointestinal illness.	Direct contact or ingestion	Low	Medium	Low	Unlikely to occur, but might restrict recreational use.	SR - emissions of substances not controlled by emission limits....SR (if required) - emissions management plan.	Very low

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Protected nature conservation sites	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance etc.	Any	Low	Medium	Low	Operations have very low capacity to cause harm to and deterioration of nature conservation sites as their capacity to cause pollution is insignificant.	SR - activities must be operated in accordance with LII criteria, SR - activities must not be carried out on or immediately adjacent to a European Site, SSSI, National Nature Reserve, Local Nature Reserve, Ancient Woodland or National Park, SR - There must be no direct discharge of aqueous waste within 10km upstream of a European Site, or a SSSI; or within 100 metres upstream of a National Nature Reserve, Local Nature Reserve or Ancient Woodland; or within a National Park. At these distances or above, the potential hazards from the permitted activities pose a low risk to the broad sensitivity of species and habitats groups. The standard permit only applies at these distances or more.	Very Low
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