

**BPEX MODEL TEMPLATE B3.5 6A**

**Environmental Risk Assessment**

**Farm name: Jesmond Farm**

**Operator: Happy Days Farming Company Ltd**

**Permit number: EPR/BP3506LE/A001**

**Table 1 Assessment of Odour Risk**

<b>What do you do that can harm and what could be harmed?</b>	<b>Managing the risk</b>	<b>Assessing the risk</b>				
<b>Hazard</b>	<b>Receptor</b>	<b>Pathway</b>	<b>Risk management</b>	<b>Probability of exposure</b>	<b>Consequence</b>	<b>What is the overall risk?</b>
<b>What has the potential to cause harm?</b>	<b>What is at risk? What do I wish to protect?</b>	<b>How can the hazard get to the receptor?</b>	<b>What measures will you take to reduce the risk? If it occurs, who is responsible for what?</b>	<b>How likely is this contact?</b>	<b>What is the harm that can be caused?</b>	<b>What is the risk that still remains? The balance of probability and consequence</b>
Odour from feed delivery and storage	Neighbouring dwelling houses within 400m of the installation	Air	Measures as described in 'How to comply with your environmental permit for intensive farming V2 Jan 2010'(EPR 6.09 Sector Guidance Note)  Odour Management Plan in place due to sensitive receptors within 400m.	Unlikely	Odour annoyance	Not significant

## NOISE

What do you do that can harm and what could be harmed?	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs, who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>Feed delivery sealed to minimise atmospheric dust. Any spillage of feed around the bins is immediately cleaned up.</p> <p>The condition of feed bins is checked regularly for integrity, so that any damage or leaks can be identified</p> <p>All feed is stored in covered silos.</p>			
Odour from the manufacturing and selection of feed	Neighbouring dwelling houses within 400m of the installation	Air	Feed specifications will be prepared by the feed compounder's nutritionist.	Unlikely	Odour annoyance	Not significant

## NOISE

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Odour arising from problems with housing ventilation system <ul style="list-style-type: none"> <li>• Inadequate air movement in the house leading to high humidity and wet bedding</li> <li>• Inadequate system design causing poor dispersal of odours.</li> </ul>	Neighbouring dwelling houses within 400m of the installation	Air	Measures as described in 'How to comply-Intensive Farming'. The building is designed for effective natural ventilation, to efficiently remove moisture and stale air from the house. Stocking density maintained at or below levels set out in Welfare Regulations.	Unlikely	Odour annoyance	Not significant
Manure and Slurry management. <ul style="list-style-type: none"> <li>• Odours arising from slurry/manure</li> </ul>	Neighbouring dwelling houses within 400m of the installation	Air	Measures as described in 'How to comply-Intensive Farming'	Unlikely	Odour annoyance	Not significant

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<ul style="list-style-type: none"> <li>• The use of insufficient or poor quality bedding. Spillage of water from the drinking system.</li> <li>• Disease problems resulting in wet bedding.</li> </ul>			<p>Controls on feed and ventilation (see above) help to maintain bedding quality.</p> <p>Prevention of condensation and damp patches.</p> <p>Frequent removal of wet/soiled bedding, maintaining clean and dry lying areas and an optimal environment.</p> <p>Good quality bedding provided in optimal quantities to provide sufficient bed and enough straw to bind liquids and ammonia – while enabling an effective straw flow system.</p>			

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			<p>A veterinary health plan is used and there are regular veterinary visits to help prevent disease outbreaks.</p> <p>Regular maintenance and correct positioning to avoid overflow from feed and drinking systems</p> <p>Surfaces prevent water ingress and arranged to avoid build-up of stagnant water</p> <p>Stocking density at optimal levels to prevent overcrowding.</p> <p>Building managed for optimum hygiene and cleanliness</p>			

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			Potentially odorous spillages (very unlikely) cleaned up promptly.			
Carcase disposal: <ul style="list-style-type: none"> <li>• Inadequate storage of carcasses on site</li> <li>• On-site disposal of carcasses by incineration.</li> </ul>	Neighbouring dwelling houses within 400m of the installation	Air	Measures as described in 'How to comply-Intensive Farming'  Carcasses are collected promptly and transferred to a sealed container where they are held until collection by a licenced deadstock collector.  No incinerator.	Unlikely	Odour annoyance	Not significant
Buildings: <ul style="list-style-type: none"> <li>• House clean out</li> </ul>	Neighbouring dwelling houses within 400m of the installation	Air	Slurry/Manure removal is done quickly and efficiently by our own staff.  Wind direction and land and weather conditions for spreading are observed.	Likely	Odour annoyance	Not significant if carefully managed

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			Potentially odorous spillages (very unlikely) cleaned up promptly.			
Odour arising from manure/dirty water storage and spreading	Neighbouring dwelling houses within 400m of the installation	Air	Wind direction and land and weather conditions observed before spreading.	Likely	Odour annoyance	Not significant

## NOISE

**Table 2 Assessment of Noise Risk**

What do you do that can harm and what could be harmed	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Noise problems from large vehicles travelling to and from the farm.  Mobile source	Neighbouring dwelling houses within 400m of the installation	Air	<p>Measures as described in ‘How to comply-Intensive Farming’</p> <p>Vehicles are required to be driven on to and off site with due consideration for neighbours</p> <p>Deliveries of feed are made only during the daytime, if possible, so that disturbance is minimised</p> <p>Loading of pigs is carried out in as short a duration as possible whilst maintaining minimum stress.</p> <p>All vehicles are maintained so as to minimise noise.</p>	Unlikely	Noise annoyance	Not significant if managed carefully



## NOISE

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			<p>All vehicles maintained so as to minimise engine noise and are driven slowly to and from the site. Engines to be switched off when not in use</p> <p>Roads and tracks maintained to minimise noise produced</p> <p>Noise Management Plan in place as there are sensitive receptors within 400m.</p>			
<p>Small vehicles travelling to and from the farm eg staff and visitors' cars, courier van deliveries, etc</p> <p>Mobile source</p>	<p>Neighbouring dwelling houses within 400m of the installation</p>	<p>Air</p>	<p>Measures as described in 'How to comply-Intensive Farming'</p> <p>Deliveries sometimes occur early in the morning so vehicles could turn up then. Mostly vehicles are modern and well maintained. Other vehicles movements will be during</p>	<p>Unlikely</p>	<p>Noise annoyance</p>	<p>Not significant</p>

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			normal working hours and therefore seen as low risk.			
Feed transfer from lorry to bins and tanks  Fixed source	Neighbouring dwelling houses within 400m of the installation	Air	Feed is brought to the site by a modern vehicle and regularly maintained to minimise excessive noise. It is unlikely to be used outside of normal working hours.  Vehicles are well maintained and designed so that noise during feed transfer is minimised  Conveyors and augers not operated when empty	Unlikely	Noise annoyance	Not significant

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			Blower and vacuum type delivery vehicles fitted with low noise units			
Operation of fans Fixed source	Neighbouring dwelling houses within 400m of the installation	Air	N/A No forced ventilation systems.	N/A	N/A	N/A
Alarm system and standby generator Fixed source	Neighbouring dwelling houses within 400m of the installation, staff and pigs	Air	No alarm system  There is a mobile generator for infrequent use in the case of electricity failure. When in use this will be positioned/housed in such a way to reduce risk of noise nuisance.	Unlikely	Noise annoyance	Not significant
Pigs Mobile source	Neighbouring dwelling houses within 400m of the installation	Air	Noise from the pigs is not considered to be significant as they are maintained in stable groups, have ad lib access to feed and water and are handled calmly. Stock checks include all aspects of health and welfare	Unlikely	Noise annoyance	Not significant

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			and environmental factors, so as to reduce risk of stress to the animals which might result in aggression/vice and therefore noise.			
Personnel Mobile source	Neighbouring dwelling houses within 400m of the installation	Air	Staff and contractors are required to do their job quietly without excessive noise from shouting and use of radios outside, etc.	Unlikely	Noise annoyance	Not significant
Repairs	Neighbouring dwelling houses within 400m of the installation	Air	If repairs to the site are required, the work is undertaken during the normal working day with due regard for possible noise nuisance.	Unlikely	Noise annoyance	Not significant

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			In the event of major repair work being undertaken which is likely to cause significant noise and disruption, neighbouring residents will be notified in advance			

## FUGITIVE EMISSIONS

**Table 3 Assessment of Fugitive Emissions Risk**

What do you do that can harm and what could be harmed	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
To air						
<p>Dust (including bio aerosols)</p> <p>Sources:</p> <ul style="list-style-type: none"> <li>• Bedding</li> <li>• Feed</li> </ul>	<p>Neighbouring dwelling houses within 400m of the installation:</p> <ul style="list-style-type: none"> <li>• Nuisance</li> <li>• Contributes to odours</li> <li>• Human health (inhalation)</li> </ul> <p>Surrounding vegetation: Covers leaves and inhibits photosynthesis</p> <p>Surrounding land: Nutrient enrichment of soils</p>	Air	<p>Use of suitable bedding of good quality to reduce risk of release of mould spores and excessive dust.</p> <p>Bedding is applied within buildings from minimum height.</p> <p>Regular clearing of dust to prevent build up within buildings, on roofs and on Yorkshire boarding/curtains, as part of the disease control strategy.</p>	<p>Dust is unlikely to travel outside of the site boundary. The prevailing wind is away from neighbouring houses.</p>	<p>Nuisance: dust on surrounding vegetation, cars, clothing</p> <p>Smothering and direct damage to nearby vegetation</p> <p>Pigs/staff may get stressed and become unwell</p>	Not significant if managed carefully

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	Contributes to respiratory problems for pigs and staff					
Ammonia  Source: Pig housing and manure/dirty water storage, removal and spreading	Neighbouring dwelling houses within 400m of the installation  Pigs and staff: high levels can cause respiratory problems  Also perceived as a nuisance as it	Air	Measures as described in 'How to Comply – Intensive Farming'  Mitigation measures as for odour  Bedding area kept in a clean and dry condition. Feed formulated to match pig requirements and to	No detailed modelling required following screening by the Environment Agency.	Aerial deposition and direct toxic effect on trees  Nutrient enrichment of soils and changes to sensitive ecosystems  Respiratory problems in	Not significant

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	<p>contributes to odours</p> <p>Surrounding vegetation: direct toxic effect and changes to sensitive ecosystems</p> <p>Surrounding land: Nutrient enrichment and acidification of soils</p>		<p>minimise amount of ammonia produced.</p> <p>Rations under periodic review</p> <p>Ventilation designed to provide optimal environment.</p> <p>Dirty water stored in below ground sealed tanks and removed through enclosed system and tankered off site. Regular monitoring of dirty water tank contents and maintenance of facilities and equipment</p>		humans and mammals	



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			<p>There is no FYM storage on the site, as all muck is removed directly to temporary field heaps. Dirty areas will be removed every other day, with a complete muck out every 12 weeks.</p> <p>Fully trained operators</p>			
Zoonoses and notifiable diseases	Human health and livestock health	Air/direct contact	Detailed biosecurity precautions in place, eg use of disinfectants, disposable/designated overalls, designated boots, gloves, hand gel etc for staff and visitors	Unlikely	Human and livestock health implications	Not significant if managed carefully

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			to prevent the spread of disease.  Secure site visitor policy  Livestock monitored for signs of disease and incidents reported quickly  Use of a health plan, with specialist veterinary input in place.			
<b>To water</b>						
Nutrients such as N and P plus organic matter  Source: Wash water run off to	Nutrient leaching from soil to surface waters and groundwater, causing eutrophication and	Land	Wash water run-off is diverted to underground storage tanks.  Clean water routes protected from risk of	Unlikely	Pollution of water course leading to eutrophication and poisoning of flora and fauna	Not significant if managed carefully

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nearby water course, manure and dirty water spreading	increased biochemical oxygen demand (BOD) of watercourses		<p>contamination. Dirty water quantity minimised by limiting area of outside contaminated concrete. Dirty water tank regularly monitored to prevent risk of overflow.</p> <p>Nearest surface water features are two decommissioned lagoons which are now clean water ponds.</p> <p>Feed spilt on yard/roadways during clean out is cleaned up</p> <p>Manure taken directly off site. No FYM storage onsite.</p>			

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Spillages from storage and use of pesticides and fuel/chemicals	Vulnerable groundwater beneath site	Land	<p>Management techniques employed aimed at avoiding or minimising use where possible</p> <p>Use of approved chemicals only</p> <p>Operators fully trained and all equipment regularly maintained to avoid any in-field spillage or discharge</p> <p>Fuel and chemicals stored in bunded containers, meeting all relevant regulatory requirements.</p>	Unlikely	<p>Contamination of surface and groundwaters</p> <p>Killing of flora and fauna</p>	Not significant

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To land						
Ammonia from storage of dirty water, manure and housing	Sensitive nature and conservation sites identified in pre-application screening  Is there a SSSI within 500m?	Air	As for odour and 'To water' above  No manure storage on site.  No SSSI within 500m.	Unlikely	Direct toxic effect on trees, nutrient enrichment and acidification of soils  Changes to sensitive ecosystems  .	Not significant if managed carefully

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What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
<p>Waste materials, packaging, etc.</p> <p>Source: Non-organic waste storage and disposal</p>	<p>Neighbouring dwellings and surrounding habitats and countryside</p>	<p>Air</p>	<p>Policy to avoid production where possible</p> <p>Dedicated storage areas and facilities</p> <p>Collected by licensed contractors for re-cycling or disposal</p> <p>Regular checks made for rubbish dumped by third parties</p>	<p>Unlikely</p>	<p>Amenity value of countryside spoilt by rubbish</p> <p>Possibility of causing harm to wildlife</p>	<p>Not significant</p>

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<b>Pests</b>						
Flies could move off-site and affect nearby residents Also, birds, rats, etc.	Neighbouring dwelling houses	Air	Pest management programme in place  No manure stored on site  Food sources covered and secure from pests  Spills promptly cleaned up. Site maintained clean and tidy.	Unlikely	Flies and rats are a vector of pollution that can harm human health  Concerns about this pollution can cause offence and affect amenity	Not significant if managed carefully

## ACCIDENT RISK

Table 4 Assessment of Accident Risk

What do you do that can harm and what could be harmed	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Spillages from pesticide and biocide handling and storage areas escaping	Potentially polluting liquids flow over yard to clean water soakaways/surrounding land/vulnerable groundwater beneath site	Flowing over yard or through cracks in poor impermeable surface and through the ground	<p>Accident Management Plan in place</p> <p>Repair and maintain any infrastructure and have appropriate containment measures.</p> <p>Any pesticides only applied by qualified staff.</p> <p>Maintenance and regular inspection procedure designed and implemented</p> <p>Foot dips on good concrete with drains located where</p>	Very unlikely	Contamination of local groundwater and potential nearby abstractions	Not significant with measures indicated



## ACCIDENT RISK

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What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
			overflowing gutters will not dilute  Regular inspection of facilities and records kept  Dedicated container for storage with impermeable hard standing within bund  Removed from site by licensed contractor  Damaged or suspect packaging rejected at time of delivery			
Fuel oil in storage tank/vehicles	Land, groundwater	The surface water drainage system	Tank is bunded and on impermeable surface. Tank regularly	Unlikely	Contamination of local groundwater and potential	Not significant with measures indicated

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escaping the containment			inspected for damage. Collision protection measures in place to reduce risk of impact by machinery. Any spillage will be contained using materials held on site.		nearby abstractions	
Spillage of feed, manure or fuel due to operator error when loading and unloading	Land, groundwater	Land, the surface water drainage system	Standard operating procedures applied for loading and unloading  The feed is contained in a sealed system.  Any spillage cleaned up immediately.  Systems and equipment inspected regularly in accordance			

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			<p>with the site maintenance and inspection procedure.</p> <p>Collision protection for bins and tanks where applicable.</p> <p>Levels measured to prevent overflowing and sight gauge enclosed by guard.</p> <p>All suppliers are supervised while on site</p> <p>Overhead pipework routed through buildings.</p>	Unlikely	Contamination of local groundwater and potential nearby abstractions	Not significant with the measures indicated

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What do you do that can harm and what could be harmed	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
			No mill and mix on site.  Fully trained operators			
Below ground dirty water tanks overflow	Dirty water flows over yard and into natural soakaway/surface water	The surface water drainage system	Tank contents monitored frequently and ahead of every clean out. Sufficient capacity allowed for full clean out. freeboard and contingency margin.	Very unlikely	Contamination of local groundwater and potential nearby abstractions	Not significant with the measures indicated
Failure to contain firewater or off-site pollutants	Natural soakaways Groundwater		Accident Management Plan in place  Firewater would be directed to the dirty water tanks and removed by tankers.	Unlikely	Contamination of local groundwater and potential nearby abstractions and surrounding nearby land	Not significant with measures indicated. Significant containment capacity.

## ACCIDENT RISK

What do you do that can harm and what could be harmed	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
			<p>Straw bales/ sandbags are available for containment to protect natural soakaways/clean water drainage routes</p> <p>Contaminants to be contained and removed or directed to dirty water storage as appropriate.</p>			
Incorrect disposal of wash water	Natural soakaways, nearby surface water, groundwater and nearby land	The surface water drainage system	<p>Staff trained in correct operation procedures</p> <p>All drainage routes shown on drainage plan</p> <p>All wash water automatically collected</p>	Unlikely	Contamination of ground and surface waters	Not significant

## ACCIDENT RISK

What do you do that can harm and what could be harmed	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
			to dirty water tanks from housing.			
Acts of vandalism which cause damage to structures and fittings	Surrounding land, surface and ground waters	Land, water	<p>Site security. Jesmond Farm can only be accessed by passing residences belonging to the operators. Farm gates will be kept shut. CCTV will be installed. Sheds, stores and equipment are securely locked at night. Signs are placed around the perimeter to warn unauthorised people against entering the site</p> <p>There is no public footpath through or adjacent to any part of the installation.</p>	Low	Contamination of soil and or water	Low

## ACCIDENT RISK

What do you do that can harm and what could be harmed	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Flooding and other storm damage	Surrounding land, surface and ground waters	Land, water	<p>There is no known flooding risk for this site.</p> <p>Good site layout and design.</p> <p>Maintenance of site infrastructure.</p> <p>Observe weather forecasts and weather warnings</p>	Low	Water and soil pollution	Low
Fire	Livestock, staff, buildings, fuel and oils, chemicals, bedding, feed, local habitats and	Air	<p>Refer to Fire Prevention Plan below.</p> <p>Regular inspection and maintenance of equipment.</p>	Unlikely	Toxic smoke and other pollutants, surface run-off from	Low

## ACCIDENT RISK

What do you do that can harm and what could be harmed	Managing the risk	Assessing the risk				
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
	neighbouring dwellings		Fire alarms.		firefighting water, surface run-off from failed storage tanks, pipes and stores  Increased numbers of dead animals for disposal  Dust and fibres from sheet building material.	



## ACCIDENT RISK

Fire Prevention Plan					
What can do harm and could be harmed		Managing the risk		Assessing the risk	
Hazard	Possible cause of fire	Risk Management	Probability of exposure	Consequence	What is the overall risk?
Straw bales in storage	Arson	Farm gates will be kept shut. CCTV will be installed. Residences adjacent to the installation belonging to the operators. Sheds are separated from each other resulting in firebreaks.	Unlikely	Fire	As long as precautions are taken, there is little more that can be done.
Shed	Electrical fire	Electrics are checked. Fire extinguishers available nearby (locations detailed in Accident Management Plan). Sheds constructed in steel.	Unlikely	Fire	Not significant if managed carefully
Shed	Fire spread from outside	The sheds are surrounded by either concrete or hardcore which is kept free of vegetation. Sheds constructed in steel. Escape doors at each end of the sheds.	Very Unlikely	Fire	Unlikely

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## **ACCIDENT RISK**

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