

## Dovecote Park Skellingthorpe

**Figure 21: Probability and risk of environmental harm**

Environmental Component	Abattoir processes				Transfer and storage of animal waste products and fuels			
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
Odours	**	N	**	*	**	N	**	*
Dust	*	*	*	*	*	*	*	*
Noise	**	*	*	*	**	*	*	*
Pests	**	*	**	*	N	N	N	N
Land pollution	*	*	**	*	***	***	**	*
Controlled water	**	**	**	*	***	***	**	*

KEY: *a*= Probability of risk taking place.

*b*= Level of likely environmental harm if risk takes place.

*c*= Level of mitigation measures in place against identified risk.

*d*= Expected level of risk with proposed implementation of mitigation measures in place

N= Negligible level of risk

\* = Low level of risk

\*\* = Medium level of risk

\*\*\* = High level of risk

### Assessment of specific significant risks

As part of the risk assessment evaluation, further consideration was given to those risks that are of a higher significance. In this particular case the most likely occurrence of significant risk will involve the pollution to land and water from leaks or uncontrolled releases from the fuel and blood tanks.

The matrix below in (Figure 22) illustrates a further assessment of significant risk. It takes account the two common elements of risk - those being the likelihood of the hazard occurring in the first instance and then the effects of the hazard if it does take place. Using a simple scoring mechanism this produces a risk factor. To mitigate against the risk factor certain protection measures will have to be put in place that may involve the installation of specific equipment or adaptation of administrative

controls. Having put the mitigation measures into place a final level of risk can be calculated.

The scoring mechanism utilised takes the following format as illustrated below in (Figure 22).

**Figure 22: The scoring mechanism**

<b>Risk Probability</b>		<b>Potential Environmental Harm</b>		<b>Effect of proposed mitigation measures</b>	
Never	0	Harmless	0		
Yearly or less	1	Minimal harm	1	Does not work	1
Monthly or less	2	Slight harm	2	Partially works	2
Weekly or less	3	Harmful	3	Efficient measure	3
Daily or less	4	Very harmful	4	Highly effective measure	4
Daily or more	5	Extremely harmful	5	Totally effective measure	5

**Figure 23: Assessment of risk with proposed mitigation measures in place.**

<b>Source of hazard</b>	<b>Pathway and receptor</b>	<b>Likelihood of hazard</b>	<b>Effects of hazard</b>	<b>Factor of risk</b>	<b>Mitigation measures proposed</b>	<b>Factor of mitigated risk</b>
Odour.	Airborne - Site personnel, neighbours	3	1	4	Current methods	$(3 \times 1) / 4 = 0.75$
Dust	Airborne - Site personnel, neighbours	2	1	3	Current methods	$(2 \times 1) / 3 = 0.66$
Noise	Airborne - Site personnel, neighbours	5	1	4	Current status (No problems)	$(5 \times 1) / 4 = 1.25$
Pests	Air and land – humans	3	2	4	Current methods	$(3 \times 2) / 4 = 1.5$
Spillages	Ground surface -land	4	5	4	Improve blood and fuel tank storage	$(4 \times 5) / 4 = 5$
Spillages - Controlled Water	Ground and surface water - environment and health	4	5	4	Improve blood and fuel tank storage	$(4 \times 5) / 4 = 5$

The risk management measures detailed in the above risk assessments must be implemented and controlled to ensure that there are no unacceptable emissions from the site. They are detailed in an improvement plan (**Section 6**).

**Addition of effluent treatment plant and discharge of treated abattoir wastewater to surface water:**

This is a previously **approved** environmental risk assessment for permit FP3830BX. In addition to this an environmental risk assessment has been conducted for the effluent treatment plant and the discharge of treated wastewater into Skellingthorpe Main Drain. After review of the environmental risk assessment, taking account of the effluent treatment plant, there are no changes required to this original assessment of risk with proposed mitigation measures already in place.

