

Review of Tregare Turkeys Ltd Accident Prevention and Management Plan

December 2011

The purpose of the review is to ensure that the operator has fully considered all aspects of accident prevention and control, this will include a review of the likely accident scenario and/ or abnormal operations that may impact a typical poultry farm and importantly that the operators response is adequate to mitigate the effects.

Accidents/incidents/non-compliance

Management System Features	Yes / No	How Llwyn y gaer Farm Tregare apply this to PPC
1. Do you have an accident plan?	Yes	Under Section 2.8 of the PPC application Tregare has developed and implemented an accident plan
2. Does the plan identify the likelihood and consequences of accidents?	Yes	The plan identifies the likelihood and consequences of accidents at the installation.
3. Do you have written procedures for handling, investigating, communicating and reporting actual or potential non-compliance with operating procedures or emissions limits?	Yes	The AMP contains procedures for investigating, communicating and reporting actual or potential non-compliance with operating procedures or emission limits. A competent individual is in place at the installation to manage any communications and reporting with the Regulator.
4. Do you have written procedures for handling, investigating, communicating and reporting environmental complaints?	Yes	The AMP and the Site Complaints Procedure both contain written protocol for internal and external communication with respect to the environmental performance of the operations undertaken at the site. A competent individual is in place at the installation to manage any complaints from either the Regulator or the public.
5. Do you have written procedures for investigating incidents, including identifying suitable corrective action and following up implementation of that action?	Yes	The AMP contains procedures for the investigation and reporting of any environmentally related incidents. Corrective actions are identified to ensure the immediate symptoms are remedied and the long-term causes addressed. All incident reports are reviewed on a regular basis to identify and investigate recurring events. AMP and safety management procedures ensure that non-conformities are analysed by appropriate management.

Tregare Turkeys have a system to manage accidents and abnormal operating situations, both major and minor. The site emergency plan describes the actions to take in order to minimise the impact of major incidents and also identifies the preventative and control measures in place on site.

2.8.1 Notification

The Emergency plan (AMP) is described as follow.;

The plan consists of procedures:

- Fire
- Spillage (containment & receptacles)
- Accidental release's (surface water)
- Notification timing (within 24hrs of incident) and fax format

An Area map of the installation, detailing the:

- Drainage
- Chemical storage
- Other Raw materials
- Spill kits

A copy of the plan can be found in the main office at the installation.

Assessing the risks

The procedure for the assessment of environmental risks forms a key part of the AMP. The site operates, on an ongoing basis, a preventative accident regime which considers a wide range of potential accident hazards scenarios resulting from abnormal operating conditions. The methodology for the risk assessment carried out by Tregare Turkeys includes an assessment, for each potential environmental scenario, of:

- Likelihood – the probability of the event taking place; and
- Severity – the potential environmental impact as a result of the event occurring.

As part of the environmental risk assessment methodology used at the site, a ranking system has been developed that attempts to objectively quantify each of these parameters. Overall risk for a given incident scenario is calculated as follows:

Risk Rating = likelihood of occurrence x severity of consequence

The estimated overall risks are assessed to determine the appropriate measures to be undertaken, such as design and development of operating procedures used to reduce the risk of accidents and minimisation of any resulting environmental impact.

Tregare has undertaken a risk rating on each of these scenarios in order to develop an improvement programme focused on the scenarios which pose the greatest risk, as presented below.

Tables 1, 2, and. 3 describe the ranking systems for the likelihood, severity and overall risk, respectively (which are based on the Environment Agency's H1 guidance for assessing the risks associated with environmental incidents).

Table 1 Likelihood scoring system

Score	Category	Range
1	Extremely unlikely	Incident occurs less than once in a million years
2	Very unlikely	Incident occurs between once per million and once every 10,000 years
3	Unlikely	Incident occurs between once per 10,000 years and once every 100 years
4	Somewhat unlikely	Incident occurs between once per hundred years and once every 10 years
5	Fairly probable	Incident occurs between once per 10 years and once per year
6	Probable	Incident occurs at least once per year

Table 2 Severity scoring system

Score	Category	Definition
1	Minor	• nuisance on site only (no off-site effects) • no outside complaint
2	Noticeable	• noticeable nuisance off-site e.g. discernible odours • minor breach of permitted emission limits, but no environmental harm • one or two complaints from the public
3	Significant	• severe and sustained nuisance, e.g. strong offensive odours or noise disturbance • major breach of Permitted emissions limits with possibility of prosecution • numerous public complaints
4	Severe	• hospital treatment required • public warning and off-site emergency plan invoked • hazardous substance releases into water course with ½ mile effect
5	Major	• evacuation of local populace • temporary disabling and hospitalisation • serious toxic effect on beneficial or protected species • widespread but not persistent damage to land • significant fish kill over 5 mile range
6	Catastrophic	• major airborne release with serious offsite effects • site shutdown • serious contamination of groundwater or watercourse with extensive loss of aquatic life

- Specialised training needs are reviewed and identified on an tri-annual basis which includes selected personnel being trained in emergency preparedness and response. This covers incident response techniques, including chemical and liquid spill containment, fire fighting, control of releases to air and all activities related to the significant environmental aspects identified in the site AMP;
- Routine safety inspections are undertaken to ensure that equipment is suitable for use;
- A preventative maintenance programme is also implemented at the installation to minimise the risk of unplanned stoppages and potentially serious incidents; and
- Internal audits are undertaken of all emergency and spill procedures.

Safety

Safe working practices are ensured by adherence to company procedures and systems. Pertinent features of these are summarised below:

- **Hazardous Materials** – All materials used on site are assessed and controlled under the Control of Substance Hazardous to Health (COSHH) Regulations. Tregare Farm maintains an up to date inventory of substances present on site which could have environmental consequences if they escape. Measures are in place for checking raw materials and wastes to ensure compatibility with other substances with which they may accidentally come into contact.
- **Operators** – The site has a stable workforce with low turnover of personnel. Training, which includes recognition and control of potential environmental incidents, is mainly task related and is conducted and supervised by experienced senior staff.
- **Process Control** – Process equipment is designed and operated to ensure that process parameters are controlled within acceptable limits. There are safe shutdown procedures for key processes.
- **Permits-to-Work** – The site operates a comprehensive pre-authorisation procedure for work to be performed on site by 3rd parties, which takes into account the nature of the task and its location.
- **Communication** – Measures exist to avoid incidents occurring as a result of poor communication among operations staff during shift changes, maintenance or other engineering work that may be being performed.
- **Incidents** – Tregare Farm abnormal occurrences resulting in injury, loss of material, damage to buildings or equipment and 'near misses' are subject to a reporting and investigating procedure that is designed to establish the basic cause and to prevent future recurrence.
- **Process Modifications** – Proposed changes to plant and processes are assessed for potential health, safety and environmental impact.
- **Site Security** – The site maintains a level of security to reduce the risk of vandalism

Table 3. Risk magnitude scoring system

Risk	Overall score	Acceptability
Low	12 or less	Acceptable
Medium	13 to 24	Acceptable if risk is reduced as far as is reasonably practical
High	25 to 36	Unacceptable – requires action to reduce the risk rating

The subsequent improvement programme emerging from this analysis is focused on addressing any High risks as a priority.

Techniques to reduce risks

Table 4 presents the principal accidents scenarios for the installation that have the potential to cause significant environmental harm, together with the measures that the site implements to minimise the risks and to control the consequences.

This review has included a review of the BAT guidance for identifying hazards, and identifying techniques necessary to reduce the risks and take into account any significant changes to the operations/process conducted on site;.

B2.8.3 Other techniques

The following general measures are undertaken to minimise the risk and effects of accidents:

- As part of the AMP, there are measures in place, to record all accidents (informing the Regulator in the event of Tregare Turkeys Ltd abnormal emissions) and to mitigate their consequences. These include:
 - manage and control raw materials and wastes;
 - control operations including start up;
 - address non-conformances (including emergencies) and implement corrective or preventative actions; and
 - control and respond to leaks, spills and emergencies.
- The site Health and Safety Policy addresses:
 - Accident reporting;
 - Audits including environmental elements; and
 - Fire prevention and control and evacuation procedures.

Table 2.8.4: Accident assessment for the installation.

Accident or abnormal release scenario	Likelihood of occurrence	Consequences of occurrence	Severity of occurrence	Risk Rating	Actions taken or proposed to minimise the chances of it happening	Actions planned if the event does occur
Generic - Site Wide						
Failure of hard standing resulting in ground contamination	4	Potential ground contamination with dirty water wash out and soluble raw materials.	1	L	Inspection and maintenance of hard standing areas.	Invoke spill containment procedures. Clean up according to COSHH data sheets and appropriate disposal arrangements. Resurface as necessary.
Vehicle collision with product stores	4	Increased waste. Release of material into drainage system. Fugitive emissions into atmosphere.	2	L	All liquid storage and vessels are guarded and banded. Pallets of dry materials are stored in designated areas.	Invoke spill containment procedures. Clean up according to COSHH data sheets and appropriate disposal arrangements.
Major fire	3	Loss of containment of stored materials. Releases to atmosphere. Increase in waste generated. Noise and odour releases.	4	L	Fire alarm systems installed, maintained and tested according to Fire and Rescue service recommendations. Emergency procedures are in place and reviewed. Permit to work system to control hot work etc. Designated smoking areas. Preventative maintenance on all electrical systems. Fire fighting training. Provision of manual extinguishers.	Invoke emergency procedures and business recovery plan.

Accident or abnormal release scenario	Likelihood of occurrence	Consequences of occurrence	Severity of occurrence	Risk Rating	Actions taken or proposed to minimise the chances of it happening	Actions planned if the event does occur
Minor Fire	4	Minor release to atmosphere. Small amount of waste generated. Small release of odour.	1	L	Fire alarm systems installed, maintained and tested according to Fire and Rescue service recommendations. Emergency procedures are in place and reviewed. Permit to work system to control hot work etc. Designated smoking areas. Preventative maintenance on all electrical systems. Fire fighting training. Provision of manual extinguishers.	Invoke emergency procedures and business recovery plan.
Failure to contain firewater	3	Contaminated waters from fire control entering surface water systems / brook / sewer	3	L	Fire prevention measures as above	Invoke emergency procedures and business recovery plan. Inform Environment Agency (EA)
Vandalism	4	Range of damage to equipment e.g. bulk storage and pipework with consequent release to ground / drains / sewer	2	L	Insurers recommended site security measures are in place including access gates.	Address any specific equipment damage. Reinstate and review security measures.
Flood	2	Increased waste, release to ground / brook / sewer	1	L	Site lies outside flood plain	Inform EA. Take appropriate corrective and preventative actions to minimize environmental impact (such as sand bagging)
Fuel / Oil spills from delivery vehicles	5	Uncontrolled release to drainage system / brook / sewer	2	L	Supervised off loading	Invoke spill containment procedures. Clean up according to COSHH data sheets and appropriate disposal arrangements
Accidental activation of alarms and sirens	5	Noise complaints	2	L	Preventative maintenance	Stop noise source and repair and review

Accident or abnormal release scenario	Likelihood of occurrence	Consequences of occurrence	Severity of occurrence	Risk Rating	Actions taken or proposed to minimise the chances of it happening	Actions planned if the event does occur
Bund failure (following tank failure)	5	Uncontrolled release of liquids into contaminated bund	1	L	Supervised off loading of materials. Bunded tanks	Stop discharge. Appropriate disposal of waste
Failure of interceptor	4	Uncontrolled release to drainage system / brook / sewer	3	L	Regular cleaning, emptying and inspection programme	Inform EA. Invoke emergency action plan and effect repair
Major Feed Spill	4	Increase waste. Release of material into drainage system	1	L	Inspections and regular preventative maintenance of feed containment vessels. Delivery driver training.	Stop discharge, by halting delivery. Contact the Feed mill to arrange a bulk sucker vehicle that can remove the spilled product by suction. Re-distribute feed, and clean area.
Minor Feed Spill	5	Increase waste. Release of material into drainage system	1	L	Constant observation by delivery driver, the placement of catchment bags on silo exhaust pipework. Regular maintenance	Stop discharge by halting delivery. Replace catchment bag, clean area and dispose of the product by waste skip, ensuring the product is bagged.
Major Chemical Spillage	3	Uncontrolled release to drainage system	1	L	Regular inspection of bunded areas, delivery of products to 'day of usage'	Immediately ensure the drainage system sluice valve re-directs the spillage to catchment tanks. Invoke the spill containment procedure and contact the EA
Minor Chemical spillage	4	Uncontrolled release to drainage system	1	L	Training competencies of cleaning operatives to ensure product is handled correctly and in measured batches as prescribed. The product is only used in a diluted state.	Ensure the drainage system is directed to the catchment tanks. Clean up area immediately.

Accident or abnormal scenario	release	Likelihood of occurrence	Consequences of occurrence	Severity of occurrence	Risk Rating	Actions taken or proposed to minimise the chances of it happening	Actions planned if the event does occur
Major Slurry / Manure Spillage		4	Uncontrolled release to drainage system. Increased waste. Fugitive emissions to atmosphere (odour)	1	L	Substance to be removed from poultry houses in manageable batches. The drainage system sluice valves must be positioned to re-direct the effluent to the catchment pots. The catchment pots must be regularly emptied.	
Minor Slurry / Manure Spillage		4	Uncontrolled release to drainage system. Increased waste. Fugitive emissions to atmosphere (odour)	1	L	All valves to catchments pots must be open. Substances should be removed in manageable batches.	

Conclusion.

It is considered that all aspects of potential accidents and abnormal operations have been appraised, however, Tregare Turkeys Ltd will inform the Regulator in the event of an accident and as required will review the Accident Management Plan as a matter of course

Review date

15.1.2012

by I L Williams

15 August 15

I L Williams No change needed