

**This form will report compliance with your permit as determined by an NRW officer**

Site	Pentre Agrochemicals Plant	Permit Ref	FP3031CW		
Operator/ Permit holder	Headland Agrochemicals Limited				
Date	26/06/2014	Time in	09:30	Out	13:00
What parts of the permit were assessed	Progress with improvement conditions, surface water management, containment of bulk materials.				
Assessment	Audit	EPR Activity:	Installation: X	Waste Op:	Water Discharge:
Recipient's name/position	Carl Rowe / Health, Safety and Environment Manager				
Officer's name	Aled Zachary	Date issued	31/07/2014		

**Section 1 - Compliance Assessment Summary**

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

**Permit Conditions and Compliance Summary**

**Condition(s) breached**

Permit Conditions and Compliance Summary	Condition(s) breached
a) Permitted activities	1. Specified by permit A
b) Infrastructure	1. Engineering for prevention & control of pollution A
	2. Closure & decommissioning N
	3. Site drainage engineering (clean & foul) A
	4. Containment of stored materials A
	5. Plant and equipment A
c) General management	1. Staff competency/ training A
	2. Management system & operating procedures A
	3. Materials acceptance A
	4. Storage handling, labelling, segregation A
d) Incident management	1. Site security A
	2. Accident, emergency & incident planning A
e) Emissions	1. Air A
	2. Land & Groundwater A
	3. Surface water C4
	4. Sewer N
	5. Waste A
f) Amenity	1. Odour N
	2. Noise N
	3. Dust/fibres/particulates N
	4. Pests, birds & scavengers N
	5. Deposits on road N
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment A
	2. Records of activity, site diary, journal & events A
	3. Maintenance records A
	4. Reporting & notification A
h) Resource efficiency	1. Efficient use of raw materials N
	2. Energy N

3.2.1

**KEY:** C1, C2, C3, C4 = CCS breach category (\* suspended scores are marked with an asterisk),  
A = Assessed (no evidence of non-compliance), N = Not assessed, NA = Not Applicable, O = Ongoing non-compliance – not scored

<b>Number of breaches recorded</b>	1	<b>Total compliance score</b> (see section 5 for scoring scheme)	0.1
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If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response

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## Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

Detailed comments are available on the Audit report attached to this CAR(1) Form.

### **Progress with Improvement Conditions:**

Improvement Conditions IC1 - IC5A are deemed to have been complied with.

### **Release of Fungicide Contaminated Surface Water on 9th of June 2014:**

**Requirements** - Permit condition 3.2.1 states: Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

**Findings** - As a result of sampling the surface water sump discharge on the 9th of June 2014 the lab analysis later confirmed contamination with 4µg/l of Tebuconazole and 3µg/l of Epoxiconazole. There are no permitted limits for these substances but both are classified as very toxic to aquatic organisms. As a result Headland Agrochemicals have conducted a site investigation to determine the likely cause(s) of this contamination.

***This release has been scored a CCS Category 4 breach of permit condition due to the potential for these fungicides to cause pollution of the receiving Sandycroft Drain.***



## EPR Compliance Assessment Report

Report ID: FP3031CW/0216003

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Site	Headland Agrochemicals Limited	Permit	FP3031CW
Operator/ Permit	Headland Agrochemicals Limited	Date	26/06/2014

**Section 3- Enforcement Response****Only one of the boxes below should be ticked**

You must take immediate action to rectify any non-compliance and prevent repetition.

Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.

X

In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.

We will now consider what enforcement action is appropriate and notify you, referencing this form.

**Section 4- Action(s)**

Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

Criteria Ref.	CCS Category	Action Required/Advised	Due Date
See Section 1 above			
E3	C4	Please submit a summary report detailing the potential causes of the contamination. The report should also detail any mitigation or site improvements in order to prevent a reoccurrence and any changes to procedures as a result. A further round of monitoring from the S/W sump should be undertaken to ensure the contamination is not ongoing.	31/07/14

## Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you.

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.

See our **Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

### Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance which could have a <b>major</b> environmental effect	60
C2	A non-compliance which could have a <b>significant</b> environmental effect	31
C3	A non-compliance which could have a <b>minor</b> environmental effect	4
C4	A non-compliance which has <b>no</b> potential environmental effect	0.1

**Operational Risk Appraisal (Opra)** - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

## Section 6 – General Information

### Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

### Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within twenty working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

### Customer charter

#### What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00–18.00) and ask for the Customer Contact team or send an email to [enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk). If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

## Audit Report form



### Part one- Audit reference information

<b>Permit number:</b>	EPR/FP3031CW	<b>Site name:</b>	Pentre Agrochemicals Plant.
<b>Date of audit:</b>	26 <sup>th</sup> of June 2014	<b>CAR ID No.</b>	FP3031CW/0216003
<b>Lead auditor :</b>	Aled Zachary	<b>Other auditors:</b>	N/A

### Part two - Scope of audit

#### Introduction:

In early 2013 Headland Agrochemicals Ltd applied for an environmental permit to operate their site located in Pentre, Sandycroft for the activity of producing inorganic chemicals and salts such as Agrinutrients and various pesti / fungicides. Since this time the site has also assembled an application for COMAH authorisation due to the aggregation of dangerous substances held on site. We at Natural Resources Wales (NRW) recognise the large amount of good work that has been delivered in a relatively short amount of time at the site so far and are hopeful the current standards of improvement are maintained moving forward.

The scope of this audit was to review the environment management system provisions at the site, the control, handling and treatment of surface water, primary containment of stored materials and progress with the improvement conditions as required in the permit. This included:

- Review of Improvement Conditions IC1 – IC5 and associated actions taken by Headland Agrochemicals.
- Improvements to surface water management and infrastructure, including a review of the discharge to the Sandycroft Drain.
- Primary containment arrangements of raw materials such as Phosphoric Acid and Nitric Acid as well as containment of bulk agrochemicals.

### Part three - Permit conditions

The table below summarises what permit conditions were audited, areas of non-compliance and suggested corrective action.

Permit condition	CAR sub-criteria	Comments and suggested corrective action	Proposed date for completion	CCS score 4 – 1	NRW proposed response
1.1.1	c)2.	Site has implemented the green dragon accredited EMS (Level 3).	N/A	N/A	N/A
1.1.2	c)2. g)1.	Records maintained on a central computer system.	N/A	N/A	N/A
1.1.3	c)2.	Access via central electronic store.	N/A	N/A	N/A
2.4.1	a)1. c)1	Operator has completed and is progressing with other improvements as required.	N/A	N/A	N/A
2.4.2	g)4.	Notifications of improvements are being received as required by the permit.	N/A	N/A	N/A
3.1.1	e)1. e)2. & e)3	No emissions other than those from permitted emission points noted.	N/A	N/A	N/A
3.1.2	e)1. e)2. & e)3	No emission limits exceeded.	N/A	N/A	N/A
3.2.1	e)1. e)2. & e)3	Emission of fungicide recorded in S/W Emission to Sandycroft Drain on 09/06/14. Action as detailed in the rear of this report.	31/07/14	4	Advice & Guidance
3.2.2	c)1. g)1. g)4.	No issues.	N/A	N/A	N/A
3.2.3	b)3. b)4	All substances on site are provided with secondary containment.	N/A	N/A	N/A
4.1.1	g)2	No issues.	N/A	N/A	N/A
4.1.2	g)1 – g)4.	No issues.	N/A	N/A	N/A
4.2.1	g)4.	No issues.	N/A	N/A	N/A
4.3.1	c)1. g)4	No issues.	N/A	N/A	N/A
4.3.2	g)4.	In the event of a pollution incident NRW should be informed using the Schedule 5 template in the permit.	N/A	N/A	N/A

**Progress with Improvement Conditions:**

**IC1 – Details of Diesel Generators on site.**

Information regarding the thermal input rating of the diesel generators on site was required to be submitted as part of this improvement condition. Details on the specification of the generators has been difficult to obtain due to the manufacturer discontinuing the model of generator in use. The improvement condition requires the thermal input rating of the generators to be submitted, thermal input rating is defined as:

*"The rate at which fuel can be burned at the maximum continuous rating of the appliance multiplied by the net calorific value of the fuel and expressed as megawatts thermal."*

Based on the technical data sheets submitted on the generators and the specific fuel used, we have sufficient information now available to estimate the thermal input rating of the generator units. We consider this information sufficient to be able to discharge this improvement condition given the diesel generators are likely to be removed or upgraded in the next 1-2yrs.

**IC2 – Stack emissions monitoring of Magnesium Dinitrate scrubber.**

This improvement condition requires the monitoring of both Nitric Acid and Oxides of Nitrogen emitted by the scrubber during various operational activities during its commissioning. The plant itself was delayed in commissioning and therefore monitoring was not carried out until the 20<sup>th</sup> of March 2014 by contractors Environmental Scientifics Group (ESG). The monitoring demonstrated the scrubber is performing within the emission limits required by the permit during various operating conditions.

As a result this improvement condition is deemed to have been completed.

**IC3 – Submission of report detailing MCERTS accreditation.**

A summary report detailing the monitoring carried out at Headland Agrochemicals was received on 19<sup>th</sup> of March 2014. The report details that due to on-site staff not holding the necessary technical qualifications or equipment to carry out the monitoring as required by the permit that it has been contracted out to a 3<sup>rd</sup> party, presently ESG. Evidence of qualifications held by ESG staff and accreditation of the labs used has been submitted as part of this improvement condition response and is deemed compliant with the permit requirements.

As a result this improvement condition is deemed to have been completed.

**IC4 – Monitoring of Particulate Matter from emission point A001.**

A summary report detailing the particulate monitoring carried out at Headland Agrochemicals was received on 28<sup>th</sup> of May 2014. The report details that the monitoring was carried out during the manufacture of MEA Polyborate and on three discrete occasions. On each monitoring round the results obtained show the emissions to be well within both the permitted limits and the emission benchmarks detailed in Annex 1 of The Inorganic Chemical Sector Guidance Note.

As a result this improvement condition is deemed to have been completed.

### **IC5A – Implementation of an Environment Management System.**

Since being permitted the site has progressed well with the implementation of an environment management system. The site was accredited to Level 3 Green Dragon on the 10<sup>th</sup> of September 2013 following a 3 day Audit of the site in July 2013 where no major non-conformances were identified. Further progress with the site EMS has been made since this time and Headland are planning on achieving Level 4 Green Dragon accreditation in the near future (an audit is planned for late July 2014).

Natural Resources Wales' guidance on "How to **comply with your environmental permit**" states:

*"We expect that your management system will be proportionate to your activities. Lower risk, less complex sites and activities may only need a basic management system. For larger or more complex sites and activities, we encourage you to have a comprehensive environmental management system that either meets the requirements, or is equivalent in scope to the international standard, ISO14001, or the European Eco Management and Audit Scheme (EMAS)."*

Given that Level 5 Green Dragon accreditation is deemed equivalent to ISO 14001 and other similar EMS standards we would encourage the site to continue the good work that has already been completed and progress towards this standard if it deemed appropriate.

A summary report detailing progress with the above was received on the 17<sup>th</sup> of March 2014 and as a result this improvement condition is deemed to have been completed.

### **IC5B – Submission of Environment Management System Documentation.**

This improvement condition is due for completion by the 30/09/14. It was agreed during this audit that rather than submit the documentation for review that a further site based audit would be conducted. This is preferred in order to assess how the EMS is being implemented at the site and is most likely to take place sometime during October 2014 (date yet to be agreed).

As a result no further action regarding this improvement condition is required on behalf of Headland Agrochemicals presently.

### **Surface Water Management:**

As part of the ongoing improvements at the site the management of surface water collected from the concrete hard standing has been identified as a potential risk, especially in lieu of a material spillage or fire incident occurring. As a result there has been significant investment by Headland in changing the drainage arrangements, beginning with the modification of the surface water drainage sump.

The sump previously discharged via a pipe operated by manual Penstock, which can still be seen below. As part of the improvement works this is in the process of being decommissioned and has been replaced by an electrical pump system. The discharge pipe has been back filled with concrete and the penstock will be removed, ensuring water collected in the sump is only released quality via the pumped system. The pumping unit itself has the facility for tanker units or the Fire Service to connect to it in the event of an emergency, the system has also been fitted with a high and low level(s) trip, which will not recommence pumping without a manual reset and will not pump in the event of the fire alarm being activated. The control panel has also been fitted with a visual alarm beacon and the facility to send text messages to key members of site management. The new arrangement is considered a far more robust system for managing discharges and preventing loss of hazardous materials to surface water in the event of an emergency.

*Modified SAW sump with new pumping arrangements:*

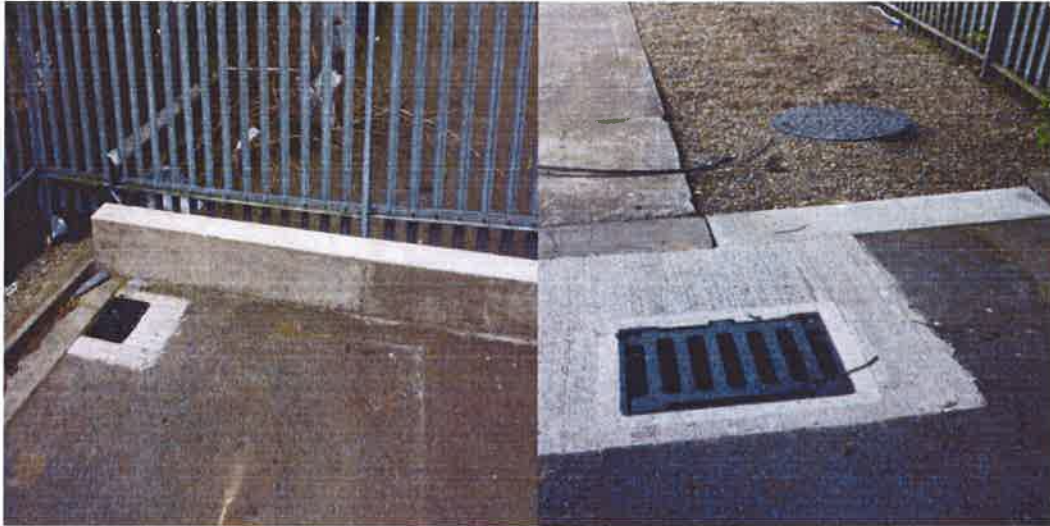


*New control panel for SAW pumping system:*



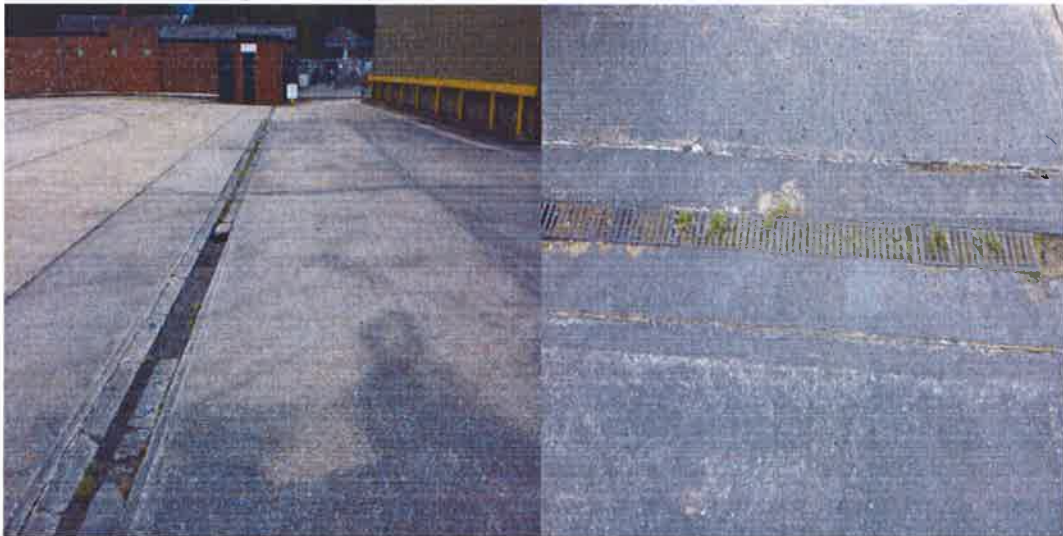
Other improvements to the surface water management include surveying the drainage system, which has identified two previously unknown emission points to the Sandycroft Drain. These discharge points have subsequently been blocked and the drainage re-routed to the containment sump. Other areas of the yard have also received additional concrete bunding to ensure all water on the yard area can only discharge via the drainage system, preventing and minimising off-site impacts in the event of an emergency or loss of containment.

*Additional bunding and new drainage arrangements:*



The drainage arrangements on the front yard and loading bay were also assessed during the visit. It would appear that some of the drainage in this area requires some maintenance and roof water down spouts should be isolated / protected from potential spillages.

*Condition of the drainage on front yard:*



*Roof water downspouts and spill kits:*



### Primary and Secondary containment of Hazardous Materials:

Containment arrangements for raw materials stored on site have received significant investment since the application for an environmental permit. All bulk materials stored adjacent to the main production area have been replaced with new tanks and relocated onto a purpose built concrete pad (including the bulk Nitric Acid storage).

*New bulk storage area:*



All the storage tanks have subsequently been fitted with high level alarms (both visual and audible alarms) and locking units on the delivery pipe work to prevent vandalism or theft. The location of an unmarked surface water drain adjacent to the bulk phosphoric acid storage was however an area of concern.

*Locking valves and drain adjacent to storage area:*



The new bulk Nitric Acid (60% w/w) storage tank is of a material specification not usually recommended for storage of this material (HDPE); details have subsequently been passed to the HSE materials specialist for assessment. The scrubber attached to the unit has been monitored during production and is operating within the permit limits.

*Bulk Nitric Acid Store and scrubber:*



Also inspected during the audit were the waste product(s), vessel washings storage and the containment arrangements within the production areas. All waste products and mixing vessel washings are now stored inside; production areas have begun to have the concrete joints resealed and raised bunds on entry / exit points.

*Concrete joint re-sealing works:*



*Waste product / Vessel washing storage & intra building bunding:*



**Other issues:**

On the 25<sup>th</sup> of June the site received notification that the previous discharge of the SW sump contained trace amounts of fungicide: 4µg /l of Tebuconazole and 3µg/l of Epoxiconazole were detected in the discharge from the 9<sup>th</sup> of June. A third party UKAS accredited lab is used for sampling of the SW contained in the sump prior to discharge, this is considered a matter of best practice in order to monitor potential contamination on site and is not a direct permit requirement. Monitoring of the SW sump in this manner is detailed in the on-site lab procedure LAB26.

Neither Tebuconazole nor Epoxiconazole are manufactured on site, with both products being imported from another manufacturer. Both products are received on site in 1000 litre intermediate bulk containers (IBC's) before being repacked into smaller retail containers in the Micronutrient department. The exact cause of the contamination is presently unknown and is due to be investigated by the site and a summary report issued to NRW.

**Part five – Actions/recommendations**

**Actions:**

- 1. Surface Water Sump Contamination** – Please submit a summary report detailing the potential causes of the contamination. The report should also detail any mitigation or site improvements in order to prevent a reoccurrence and any changes to procedures as a result. A further round of monitoring from the S/W sump should be undertaken to ensure the contamination is not ongoing.


**NB: A report has already been received by Headland on the 22/07/14**

- 2. Drainage adjacent to Bulk Materials Storage** – The drain cover in this area (in front of Phosphoric Acid tanks) should be sealed or re-routed to prevent a possible route of contamination in the event of product loss from the bulk storage area.

**Recommendations:**

- The surface water drainage channels in the front yard require maintenance to ensure they are fit for purpose.
- Roof water downspouts should be isolated / protected to prevent contamination in the event of a spill. Alternatively roof water could be utilised to reduce mains water use on site.
- Improvement condition IC5B does not require any further action by Headland.
- Formal notification of any potential or actual pollution incidents in future should be completed via the Schedule 5 reporting route.

**Part six - Report approval**

<b>Lead auditor:</b>	Aled Zachary	<b>Signed</b>		<b>Date</b>	29/07/13
<b>Job title:</b>	Regulatory Officer.				
<b>Approved by:</b>	Ian Oakes	<b>Signed</b>		<b>Date</b>	31/07/13
<b>Job title:</b>	Technical Specialist.				