Compliance Assessment Report

Report ID: CAR_NRW0032041

This form will report compliance with your permit as determined by an NRW officer					
Site	Cellulose Extrusion Plant	Permit Ref	VP3635SY		
Operator/Permit holder	Viscose Closures Ltd				
Regime	Installations				
Date of assessment	18/07/2017	Time in	10:00	Out	15:00
Assessment type	Audit				
Parts of the permit assessed	Tanks and bunds				
Lead officer's name	Taylor, Richard				
Accompanied by					
Recipient's name/position	Robbert Rodenburg/ HSEQ Manager	Date issued	17/08/2017		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). 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	**CCS Category**	**Condition(s) breached**

KEY: See Section 5 for breach categories, suspended scores will be indicated as such.
A = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,
O = Ongoing non-compliance, not scored.

Number of breaches recorded	**0**	**Total compliance score** (see section 5 for scoring scheme)	0

If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response

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 (eg. 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 advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

Viscose Closures Tanks and Bunds audit – 18th July 2017

Present; Robbert Rodenburg HSEQ Manager Viscose Ltd; Stephen Armstrong, Viscose Ltd, Richard Taylor, NRW

Viscose Closures Limited has a cellulose extraction plant based at Enterprise Park, Swansea. The site is captured under the Environmental Permitting Regulations (EPR Regs) and operates under a license which is regulated by Natural Resources Wales.

The permit is subject to periodic auditing by NRW and certain permit conditions have been focussed on with this the tanks and bunds audit detailed below. The integrity of tanks and bunds has been a focal point for Welsh sites for 2017. This audit fits well within the overview of sites which are either Food and drink sector sites or produce items which fit in the food and drink manufacturing sector such as Viscose Closures Ltd.

The site permit VP3635SY was issued in 01/06/2005 with the latest variation (V007) in force on 05/05/2017. This consolidated the permit into the modern format and has the following conditions which directly apply to tanks and bunds.

1.1.1(a) – The Operator shall maintain and implement a management system which identifies and minimises risks of pollution including those arising from operators, maintenance, accidents, incidents, non-conformances, (b) using sufficient competent persons or resources.

1.1.2 – Records demonstrating compliance with condition 1.1.1 shall be maintained

3.2.3 – All liquids in containers whose emissions to water or land could cause pollution shall be provided with secondary containment, unless the Operator has used other appropriate measures to prevent and minimise leakage and spillage from the primary container.

As such the tanks and bunds audit was implemented to examine the current state of the site and the risk it poses to the environment.

Details of the Tanks and Bunds Audit

1.	EMS system. Is containment addressed within the site EMS? Yes. As part of the EMS, the site provided a detailed list of the tanks, scrubbers and sumps they hold on site under	

	'Tank Inventory'. This numbers the tanks, and has the location, substance, quantity, and periodic inspection timings. It also details whether there is secondary containment and includes a diagram location.	
2.	*Planned Preventative Maintenance (PPM)* *All tanks are inspected every 6 months by site competent personnel.* *No external checks have been carried out since pre 1991. No daily inspections are carried out on a formal arrangement. No longer are term checks carried out by a suitably qualified structural engineer.*	
3.	*Location of maintenance / inspection procedures.* *Site implements a cleaning schedule on end of each production run. This is informal and not documented as a work instruction.* *There is a 6 month periodic assessment detailed on the EMS under the tank inventory sheet.* *There is a reference to containment, storage and labelling on the COSHH sheet ref VCL/EMS/007 at 5.2 where the responsibility of tanks, bunds, and pipelines are inspected according to the Site Monitoring management plan (SPMP submitted to NRW June 2017), However on inspection the SPMP does not go into detail beyond the period which the tanks, pipelines, bunds, road surfaces, and grease interceptors are periodically inspected.* *All inspection reports are held in the 'Cellulose Departmental Managers' Office for a minimum 5 years.*	*Site needs to schedule a formal system of inspection and monitoring of their tanks and bunds on a periodic basis which also carries details of the work to be undertaken, example below.*
4.	Scheduling of Inspections *Site system is ad hoc without a formal daily/weekly check sheet for tanks and bunds.* *6-12 month checks detailed on the SPMP in the EMS are carried out by site responsible personnel, but records of the checks carried out are absent for tanks and bunds. Photographs are taken before and after the work is carried out and could form a record if this procedure was documented as part of the EMS.* *There is a regime in place for grease trap (oil interceptor) ref VCL/EWI/001 which is scheduled on a 2 year frequency.* *There are no records of tanks or bund integrity checks being carried out by a suitably qualified engineer.* *There are no plans for a detailed site inspection of tank and bund integrity.* *These are not detailed on the EMS.*	As detailed in previous CAR form issued to site on 06/10/2016 – the HSE recommendations for the inspection frequency for bunds can be found in CIRIA C736 at box 5.2; **Daily Checks** – (by Operational Staff) Walkover, remove debris from bunds and tanks. Note defects to walls, seals, and schedule repairs ASAP. Note; evidence of overtopping, spills on ground, or staining need to recorded and acted upon. Check oil separators to ensure they are working correctly. Check tank bund valves are closed. Remove excess rainwater daily - ensuring this is not lost product as this could indicate a leak. **Weekly Checks** - Remove any surface oil in separators Check drain covers/grids are free of debris Check stock – compare tank dips to stock use. This may indicate a leak/loss. **Monthly checks** – Where fitted, sample outflow from separators. **Formal 6 monthly/Annual Inspection** – It is recommended that this is carried out by an Engineer who is familiar with the composition of the bunds and tanks

		(Employee or Contractor). Any faults must be recorded and available for audit. **5 year detailed Inspection tank and bund inspection** – this is recommended to be carried out by a competent person who is able to sign off the integrity of the structures and identify repairs if needed. NRW recommend that site upgrade their tanks and bunds inventory's and the Site protection and monitoring programme to match the recommendations laid out in CIRIA 736. http://www.ciria.org/Resources/Free_publications/c736.aspx
5.	Corrective actions *HSEQ Manager takes pics before and after as in process- this is itemised on SOP.2* *Site Engineers have previously received confined spaces training, but this has elapsed.* *No risk assessment was available on the tanks.* *The last spillage was on 20/9/16 but was small enough to be managed in-house and was contained within the containment bunds.* No procedure is in place for upgrading tanks. They are upgraded or replaced when they become uneconomical to repair. Bund water removal. Site reported this was regularly carried out at the end of a production run approximately every 2 weeks. Daily cleaning takes place in the conversion area.	*Rec risk assessment on compatible materials, rec spillage company.* System is reactive rather than proactive. Site should consider scheduling replacement tanks based on manufacturer's recommendations.
6.	Accident Management Plan An up to date AMP is in place as part of the site 'SPMP' which was submitted to NRW on 28/06/17 as part of the permit requirements. There is a contact list plus a list of tank contents. *The AMP does not cover the combustion of spilled tank contents.*	*In the event of an accident, the site needs to provide an AMP grab pack at the entrance for emergency services. This should include the AMP/SPMP plus a list of tanks and their contents, as well as a plan of the site showing the emergency cut-off switches to gas, water and electricity, as well as a drainage plan and an up to date list of emergency contacts for site and the emergency services. Ideally this should be at least 2 copies and laminated.*
7.	Planned preventative maintenance system. Site has introduced a new policy, but this is currently a work in progress. There was no direct PPM in place for the tanks at this inspection. In-house welding takes place to patch and repair tanks unless it is pressurised. Site Insurance policy prevents site to work on pressurised vessels. These are changed for new when required.	*Site need to conform with manufacturers recommendations.*
8.	Specifications Location of tanks and bunds are listed on the 'tank inventory' and the 'bund inventory' sheets. These do not map the location, but list where they are. i.e., the bund	*An improvement would be to print out a map of the tanks and bunds locations to include with the list.*

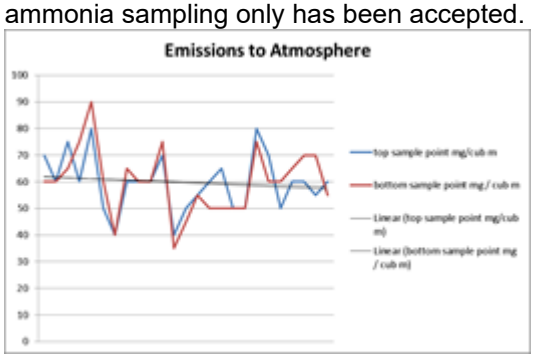
	inventory cites the drawing location as Appendix A3 of the permit application.	*Site should check the HSE website to ensure incompatible materials are not stored with each other.* *http://www.hse.gov.uk/chemical-classification/index.htm*
9.	Tank specification The life of any specific tank was unknown. The tank and bund construction material was checked when the site was set up, but not routinely checked and re-verified.	*Site need to carry out an audit on their tanks to ensure they are the correct recommended construction material to hold the liquids inside.* *Links :* *http://www.hse.gov.uk/pubns/guidance/pm75.pdf (GRP tanks)* *http://www.hse.gov.uk/pubns/priced/hsg235.pdf (bulk storage of acids)* *http://www.hse.gov.uk/pubns/priced/hsg176.pdf (flammable liquids)*
10.	*Ancillary equipment specifications. Evidence of appropriate connections, hoses and linings*. Every bund has a pipe going in and out always top fed and pumped out.	*Appropriate connections are being used.*
11.	*Secondary Containment* *Shop floor has a low point in the centre which acts as a shallow bund.* *Conversion room does not have a tank.* *No tanks go to sewer. These are pumped out and corrected for pH levels. .Shop floor flow goes from middle building which collects shop floor effluent (3m3) then to outer tank for pH correction (3m3) – then overflows to final sump then sewer as treated effluent. Site effluent is inspected once per month by Dwr Cymru.* *A secondary monthly sample is taken by site and analysed by an MCERTS accredited lab when failures of limits are detected. This meets permit condition 3.5.2.*	*Note; permit condition 4.3.1(b) states that 'in the event of a breach of any permit condition the operator must immediately inform NRW and take the measures necessary to ensure that compliance is restored'* *This means that any breach of the water discharge consent needs to be reported to us using the schedule 5 sheet at the back of the site permit.*
12.	*Specification of secondary containment* *The caustic tank was replaced in 2014. HSEQ ordered the replacement tank to his specification and the tank was built to this spec.*	*NRW guidance on the key criteria for bunds is on pages 27-30 of the 'how to comply with your environmental permit'* *http://naturalresources.wales/media/2110/how-to-comply-with-your-environmental-permit.pdf*
13.	*Defects* *Internal Inspections are carried out periodically on 'normal' tanks by site personnel.* *Site boiler has planned maintenance (daily and annually) and is inspected for insurance purposes. If this is found to be damaged it is replaced according to the insurance policy.* *HSEQ inspects tanks, and site personnel are qualified to carry out welds to normal steel and stainless steel. This work is signed off by the site Foreman prior to the equipment returning back to production. Foreman holds*	*The decision process for work which needs to be externally contracted is not documented* *The system of employing external contractors is robust.* *CIRIA C736 sets out repair and upgrading maintenance techniques*

	relevant IOSH certificate. *If the work required is beyond the capabilities of in-house staff then external contractors are employed.* *The 'RAMS' risk assessment package is used to assess the contractor's competency prior to their employment. They also need to obtain a permit to work*	
14. Pic 1.	*Potential level of risk to the environment.* *The site risk assessment is located on the pollution prevention plan updated 17/03/16. This details where the risk assessments are found on the EMS.* *There are no further details on how the risk assessments were arrived at.* 	*Recommend a review of the tanks and bunds risk assessment* *T1 Viscose bulk storage tank. 21,000ltr capacity.* *A simple work instruction is kept for filling operations.*

Pic 2. T1 tank		*A hole was found in the underside of this tank which compromises the integrity of the structure and increases the risk of the contents escaping the tank.* ***ACTION. This requires an immediate repair to reduce the risk of an accident.*** *Site are to notify NRW when the repair has been carried out and the tank integrity has been returned.*
Pic 3. Pipework at T1 tank		*The pipework in this area showed signs of rust. Pipework needs effective maintenance.* *The bund holds several other tanks including a sodium hydroxide which is corrosive to metal.* *These need to be protected to prevent rust fracturing of joints and seals. The area needs to be prevented from corrosive substances from entering the bunds.*

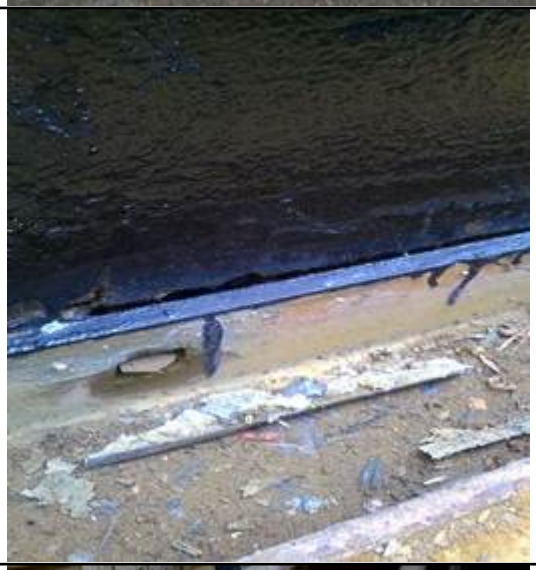
Pic 4 concrete corrosion		*Inside concrete bund. The conditions within the bund show signs of corrosion to concrete.*
Pic 5.		*Rusting pipework seen in the bund at tank T10 in the caustic storage bund.*

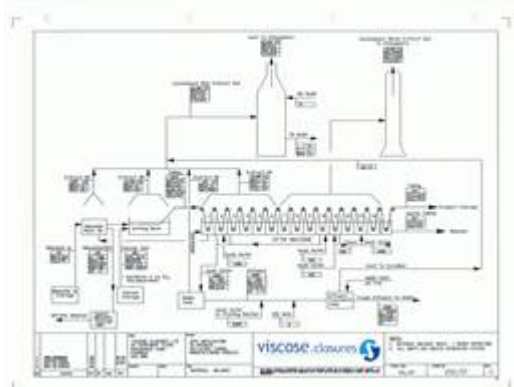
Pic 6.		*T10 Caustic tank displays hazardous warning signs to hands and materials. This necessitates the need for regular maintenance to infrastructure.*
Pic 7.		*Rusting pipework and joints and seals needs to receive regular maintenance and protection from corrosive elements. Priority must be to prevent the substance from entering the bunds.*
Pic 8.		Rainwater was seen collected in an external bund. CIRIA C736 guidance for rain water in bunds C736 at box 5.2; Daily Checks – (by Operational Staff) Walkover to remove debris from bunds and tanks - Remove excess rainwater daily - ensuring this is not lost product as this could indicate a leak.

Pic 9.		Outside waste storage area. This is located on a concrete pad which drains to a collection point at the effluent treatment plant. The concrete shape is an effective bund, but the drain point is a weak area which needs routine maintenance to effect control The empty waste drums are stored on pallets within the concrete 'bund'. Waste needs to follow permit condition 2.3.3 where the relevant EWC code is applied and waste transfer notes are issued and kept by all parties involved with waste collection/delivery. This will be subject to future audit.
Pic 10.		Air emission point A1 stack. This is located within a concrete bund and constructed of double skinned fibreglass. Site asked permission to extend the air sampling collection point down a tube to ground level to reduce the risk to site personnel. (Tube in place next to ladder). Site have conducted a survey of comparative results where measurements from the A1 sampling point (top) have been compared to the ground level results via the tube to ground. This applies only to daily measurements of ammonia where the limit is 190mg/m3. Results over a month showed strong correlation and this method for daily ammonia sampling only has been accepted. 

Pic 11.		A1 stack base showed signs of contamination. Site needs to reduce this at source through more effective management procedures.
Pic 12.		A1 stack base. Metal reinforcement of the stack showing advanced rust and pipes left on the base of the bund in a corrosive environment. Site is required to prevent substances entering this environment by effective control. Rust needs to be treated to reduce the risk of failure. Site needs to maintain or replace replace steel reinforcement as part of their maintenance programme. This is part of permit condition 1.1.1 (a) where ***'The Operator…identifies and reduces the risk of pollution….arising from accidents, incidents, maintenance'*** *etc*. Pipe work needs to be raised from the bund floor to prevent corrosive damage to the pipe.

Pic 13.		A1 stack inlet. Showing signs of spillage from incomplete seals to the flanges. The outer flange shows corrosion. This needs to be maintained or replaced immediately so that the emission into the stack is not spilling to the bund floor which is in turn corroding the infrastructure in this area. **Action – Site to maintain or replace flange plate so that an effective seal is formed.**
Pic 14		A1 stack bund – showing foliage ingress. This should be cleaned back to reduce damage to the bund infrastructure. Foliage secretes a mild acid which damages concrete.

Pic 15.		A1 stack bund – anchor points within the bund weaken the overall integrity of the concrete. These should be placed externally.
Pic 16.		A1 stack bund shows previous repair work, but gaps are seen within the bund which would be a pathway for any pollution within the bund to seep directly out over the metal sill and into the ground adjacent. With evidence of the leaking flange plate seen in pic 13, this forms 2 parts of the pollution Source – Pathway – Receptor route. However no pollution was seen at the time of the inspection. This issue needs to be addressed immediately to reduce the risk of pollution. **Action – Ref Permit condition 1.1.1(a) Site are required to carry out repairs immediately to seal the bund.**
Pic 17		Modification to dripping pipework to ensure leaked contents remain in bund. Policy should be to prevent substance leakage at source. This solution is over engineered. Shortening pipes at the outset would ensure that any residue liquid would remain inside the bund.

Pic 18.		Bottom of tank corroded away. This outer skin of a tank has been eaten away and needs replacement.
Pic 19	  	Solvent store. No picture taken inside due to policy of no mobile phones. However, the extraction system inside the solvent store is currently being used as a vent for solvents.to be emitted to atmosphere. This appears to be an unabated solvent emission point. Site are permitted to emit emissions to air from A1 stack and A2 - extraction system from tanks 7-14 RTTM only. **Action – Site to explain why emissions of solvent are occurring from the chemical store and how the route of emission leads to either A1 or A2 emission to air points. Reference to Viscose Closures drawing no 200/01 below.**

Other issues

SPMP review - Site asked for a relaxation in the monitoring frequency of pipes which contain non-hazardous substances due to them being a lower risk than pipes containing hazardous substances. At present the pipelines are inspected 6 monthly hazardous substances and 24 months for all other pipelines.

Decision – Due to the corrosion damage seen to site pipework during this inspection, it is seen as too risky to increase the current 24 months inspection frequency to non-hazardous pipelines. As such the requirements laid down since 2007 by the permit remain in place.

Inspection item	**Current inspection regime**	
	Specific item	**Time interval**
Tanks	Tanks containing hazardous substances	6 months
	All other tanks.	12 months
Pipelines	Pipelines transferring caustic, sulphuric acid, steam and compressed air	6 months
	All other pipelines.	24 months
Bunds	-	6 months
Road surfaces	-	6 months
Grease interceptors	Surface water drains in yard and car park	24 months

End.

Cyfoeth Naturiol Cymru Natural Resources Wales	**EPR Compliance Assessment Report**	**Report ID: CAR_NRW0032041**

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

Site	Cellulose Extrusion Plant	Permit Ref	VP3635SY
Operator/Permit holder	Viscose Closures Ltd	Date	18/07/2017

Section 3 – Enforcement Response

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.

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

Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

Criteria Ref.	**CCS Category**	**Action required/advised**	**Due Date**
See Section 1 above			

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 verbally or 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 that could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no 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 fulfil 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 (eg. 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
- Assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental 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 fifteen 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 officer's line managers using the informal appeals procedure. 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. 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.

Welsh Language
If you would like this form in Welsh please contact your Regulatory Officer.