

Wigton Trade Effluent Dosing Installation Odour Management Plan



Odour Management Plan

V1 November 2018

Wigton Trade Effluent Dosing Installation Odour Management Plan

AMENDMENT SUMMARY

Issue no.	Date	Brief description of amending action	Prepared by:	Reviewed/ authorised by:
1	November 2018	Original issue	Owen Thomas	Paul Kynsaton

Wigton Trade Effluent Dosing Installation Odour Management Plan

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Odour Management Plan

1. Introduction and Scope

The EA's Guidance on 'Control and monitor emissions for your environmental permit' requires certain specified activities to provide a written odour management plan (OMP) for approval as part of the permitting process. Whilst the activity carried out at this Installation does not feature within this list of specified activities, United Utilities Water Limited (UUW) recognise the potential odour risk from the Installation; therefore this document has been prepared and submitted as part of the environmental permit variation application V004 for the Wigton Trade Effluent Dosing Installation, operated by UUW.

UUW operate a number of permitted sludge treatment installations where OMPs are required and this OMP is based upon UUW's experience in managing odours across its operations.

This OMP has been prepared following the Environment Agency's H4 guidance and the objective of the OMP is to provide guidance to all Operations and Maintenance staff with regard to practices that will minimise the risk unacceptance off site odour exposure occurring

The OMP is an operational document that is developed following the identification and review of risk areas for odour release. It details operational and control measures appropriate to the reduction or elimination of the impact of odours from the Installation. It provides detail to allow operators and maintenance staff to understand the operational procedures for both normal and abnormal conditions.

As part of the odour management plan the application of best available techniques (BAT) has been used in the design process in the selection of odour treatment technology to minimise the risk of odour impact to the local community.

This is a "live" document and will be subject to further review and updating over the operational life of the site as part of the on-going monitoring and review programme focused upon improved performance, via input from all stakeholders; this includes, but is not limited to, site operations and regulatory bodies.

The site's Production Manager will be responsible for implementation of the OMP and its regular review.

2. Site Overview

The Installation is located immediately to the north of the existing Wigton WwTW (the WwTW itself is not covered by the Installation's permit), situated to the north east of the town of Wigton in Cumbria.

The Installation was initially designed and operated to treat the trade effluent within the trade effluent sewer and, as such, no odour management plan was required when the Installation's original environmental permit (EP) was applied for and obtained. The change in operations at the Installation, involving the receipt and treatment via ASP of the trade effluent, has resulted in the need for odour management and the production of this OMP.

The Installation treats trade effluent flows from the nearby Wigton Cellophane Plant only, with the treatment process consisting of Dissolved Air floatation (DAF), Activated Sludge Process (ASP) and dosing with hydrogen peroxide. Sludges from the ASP are stored onsite prior to removal for disposal at another suitably permitted facility.

The only point source emission to air is the discharge from the odour control unit, which treats air from the sludge storage tanks and the DAF floc chamber. All other process are open to atmosphere.

The installation comprises of the following elements:

- 1x overflow/bypass chamber

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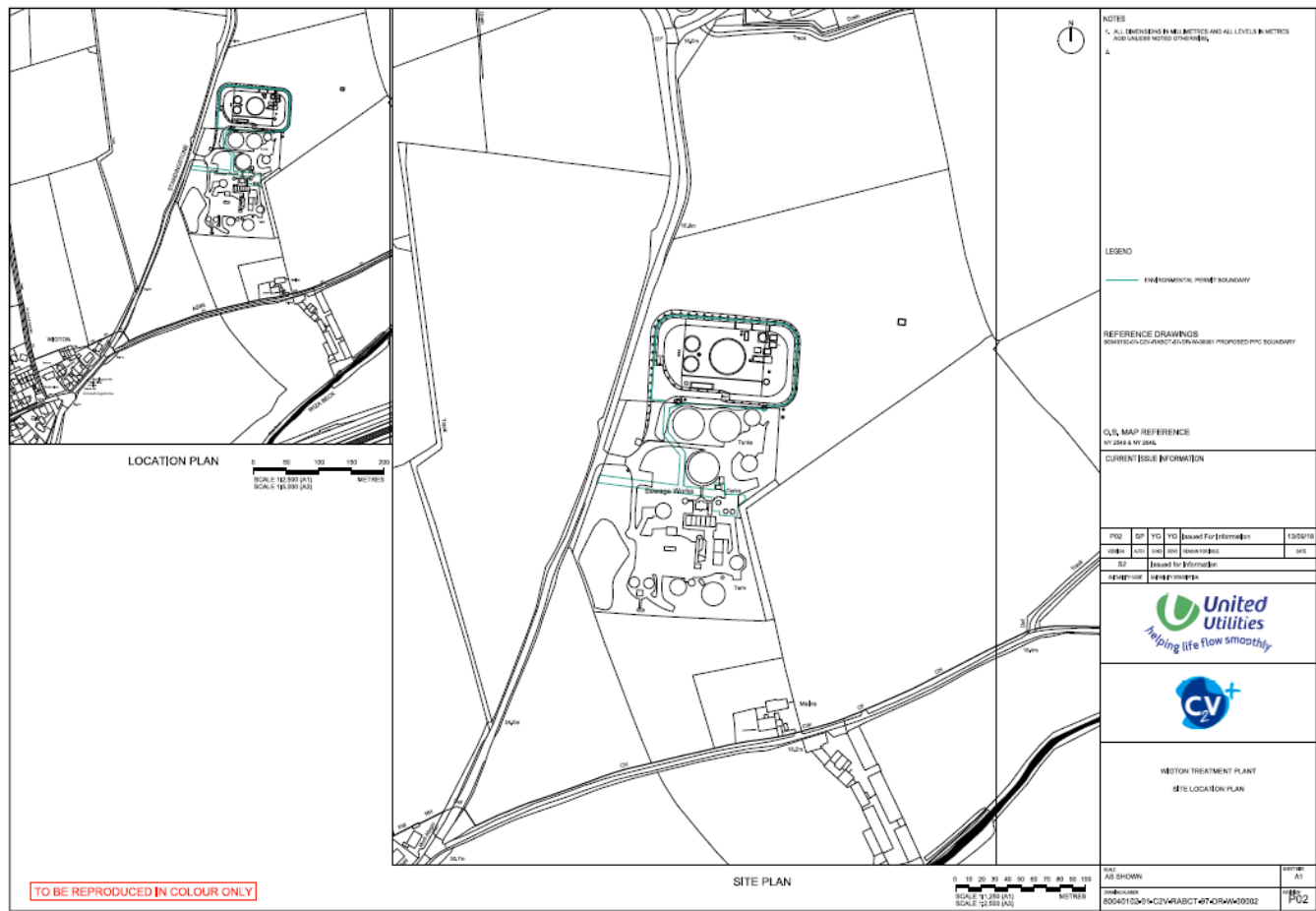
- 1x inlet pumping station
- 1x floc tank
- 1x dissolved air flotation (DAF) tank
- 1x aeration tank
- 1x nutrient addition unit
- 1x final settlement tank (FST) distribution chamber
- 2x FST
- 1x sludge storage tank
- 1x odour control unit (OCU)
- 1x hydrogen peroxide storage tank
- 1x hydrogen peroxide dosing point
- 1x tanker loading point (for sludge removal)

3. Site Location and Surroundings

The installation is mainly outside the operational boundary of the Wigton WwTW (with the exception of the hydrogen peroxide storage tank and dosing plant). It is located within a primarily rural area; south west of the installation is the town of Wigton and to the north, west and east are fields with occasional individual properties and small settlements.

The nearest sensitive receptor is located approximately 135m to the south of the Installation (a farm on an unnamed road). See Figure 1 below.

Figure 1: Site location



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4. Process Overview

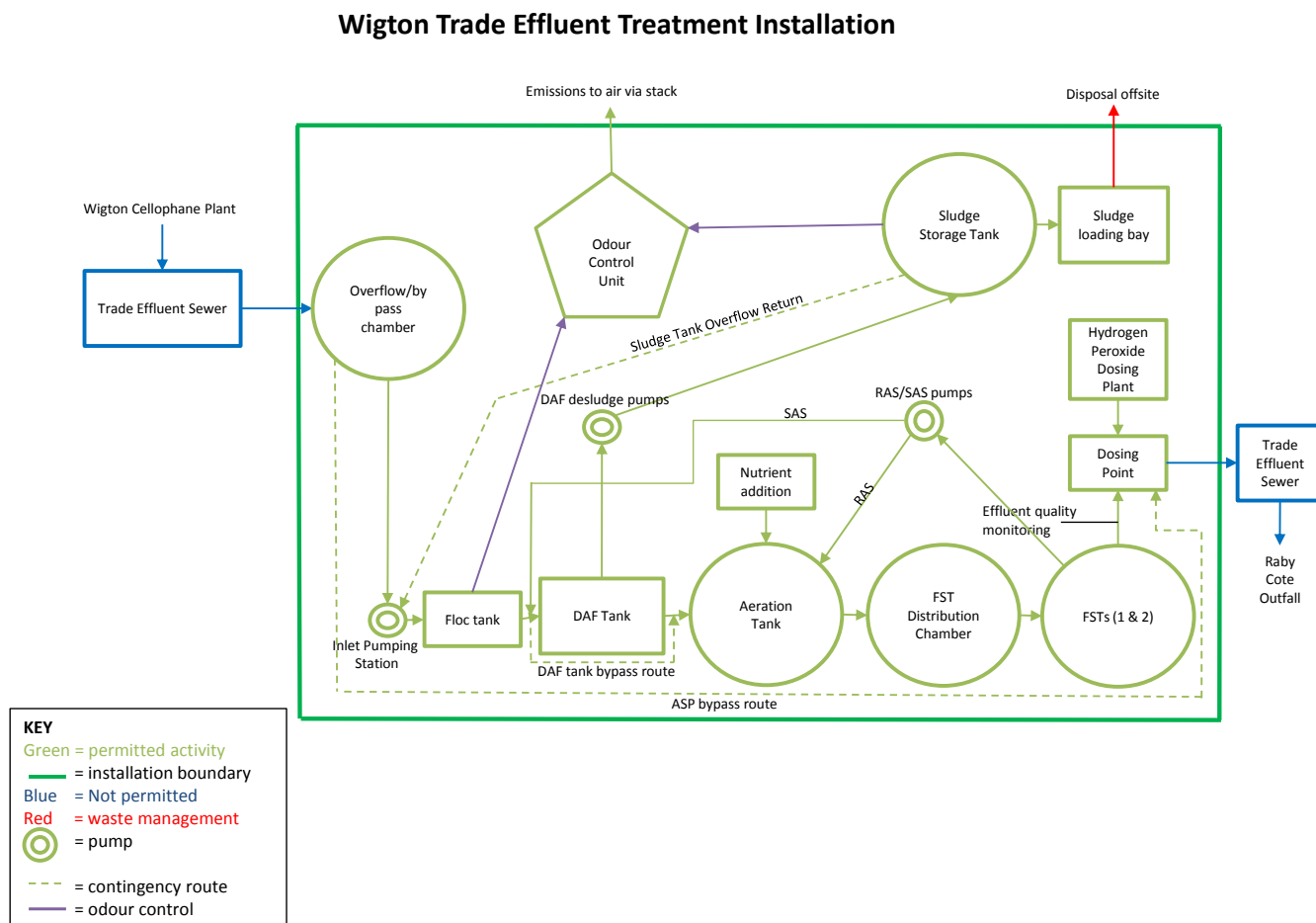
Pre-acceptance, Acceptance and Storage of Waste

The trade effluent to be received for treatment comes from the nearby Wigton Cellophane Works, arriving at the Installation via a dedicated trade effluent sewer. There is no requirement for pre-acceptance or acceptance procedures for identification and characterisation of this effluent as extensive testing and characterising has already been undertaken to inform the treatment process.

Waste Treatment and Processing

The following outline process flow diagram (Figure 2) shows the new trade effluent treatment process:

Figure 2: Process Flow Diagram



The ASP process is an internationally recognised and utilised process for the effective treatment of wastewaters and suitable industrial effluents and as such is considered to represent BAT for the treatment of this trade effluent – see Section 8 for the full BAT assessment and justification for the selection of this process.

Upon arrival at the installation, the trade effluent will first enter an overflow/bypass chamber, a dry HDPE chamber with pipework passing within. Leakage detection will be provided within the chamber and will alarm back to control centre.

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During normal operation, the effluent will then enter the inlet pumping station, a wet HDPE chamber with leakage detection provided between the inner and outer skin of the tank which will alarm back to the control centre.

From the inlet pumping station the effluent is pumped via above ground stainless steel pipe to the Floc tank, a closed HDPE tank within which surplus activated sludge (SAS) is mixed with the incoming effluent. The tank is aerated and connected to the installation's odour control unit (OCU).

From the Floc tank, the effluent then gravity flows into the DAF tank, an open tank constructed of stainless steel. Air is blown into the effluent within the tank in order to maintain aerobic conditions for the microbial floc within the activated sludge. In order to maintain the microbial floc key nutrients will be added, with the application rate required to be determined during commissioning. Continuous surface scraping within the DAF tank removes surface sludge into a sludge hopper within the DAF, with removal of settled sludge from the bottom of the DAF also undertaken via a manually operated valve when required. The sludge is then pumped to the sludge storage tank via 2 DAF desludge pumps (operating in duty/standby).

From the DAF tank, the effluent then moves to the aeration tank. Should the DAF tank be unavailable, there is a contingency route that enables the effluent to bypass the DAF tank and go straight to the aeration tank, this will be manually controlled via the use of dedicated valves.

The aeration tank is constructed of glass coated steel and has an operating volume of 2,340m³ (total volume ~ 3,000m³). It is within this tank that the activated sludge is maintained and the main aerobic biological digestion of the effluent takes place. The contents of the tank are continuously aerated via three floating aerators and the contents of the tank are continuously monitored for temperature and dissolved oxygen.

From the aeration tank, the effluent then moves to the final settlement tank (FST) distribution chamber; this chamber receives effluent from the outlet of the aeration tank and is hydraulically designed to equally distribute flows to each of the FSTs. When required individual FSTs can be isolated within this chamber.

In the FST the activated sludge settles and the clarified supernatant is discharged to the trade effluent sewer via the hydrogen peroxide dosing point (see the following paragraph). Combined return activated sludge (RAS) and surplus activated sludge (SAS) will be pumped using common pumps down one combined rising main. RAS discharges into the DAF tank and SAS is bled off this rising main using an actuated valve combined with a flow meter to balance flows.

Upon exiting the FSTs, a sample of the treated trade effluent is pumped through a temperature probe and a 254 nm ultraviolet monitor to measure turbidity prior to receiving a set dose of hydrogen peroxide and then leaving the installation via the dedicated trade effluent sewer. The hydrogen peroxide is added to oxidise any residual BOD in order to lower the risk of a biological film forming inside the trade effluent pipe and to remove the 'food' source so that the sulphide permit is not breached at the outfall. It also has a secondary benefit of acting as a disinfectant to *E.coli*.

Contingency Operation

Should the ASP plant be unavailable for any reason, the effluent arriving at the overflow/bypass chamber will be gravity diverted along a dual contained bypass pipe (with leak detection) to the discharge pipe from the ASP upstream of the hydrogen peroxide dosing point. In this contingency operation, the hydrogen peroxide dosing plant will deliver a higher pre-set quantity of hydrogen peroxide to the effluent to provide a contingency level of treatment. Should the ASP be unavailable due to loss of power to the site, the dosing plant will continue to include a backup uninterruptable power supply (UPS) that will enable short term continued operation of the contingency dosing. There are facilities available to connect an external generator should the power supply interruption not be swiftly resolved.

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Level sensors are in place within the overflow/bypass chamber to record when overflow conditions occur and increase the dosing.

Sludge Storage and Management

As detailed above, SAS collected from the DAF tank is removed from the tank via the DAF desludge pumps (two, working duty/standby) and sent through an above ground pipe to the closed sludge storage/consolidation tank located within the north west corner of the bunded treatment area. The tank is constructed of glass coated steel and has air mixing for its contents.

The sludge tank has a level alarm that restricts its operating volume to 175m³ and should any overfilling occur an alarm will sound at United Utilities' Control Centre and the overspill return pipe will return the excess sludge to the inlet pumping station.

Sludge will be regularly removed from the tank (and hence the site) via fixed pipework from the tank to the dedicated tanker collection point within the bunded area. Here the tanker will connect to the discharge point via a flexible hose with Bauer coupling. Spill kits are available within the treatment area should any small spills occur when connecting/disconnecting to the tanker.

The closed sludge tank is connected to the installation's OCU.

5. Hours of Operation

Waste is received and processed through the plant for 24 hours a day.

6. Treatment Capacity

The maximum treatment capacity is 5,184m³ per day of trade effluent arising from the Wigton Cellophane Plant. The maximum quantity of effluent and sludge stored within the installation at any one time is 3,558m³.

7. Wastes Accepted

The installation will treat a single waste stream – the trade effluent arising at the Wigton Cellophane Plant.

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8. Inventory of Odorous Materials and Control Measures

The following table details the odorous materials associated with the installation process stored on site, their location and the odour control measures applied.

Process Unit Description/Area	Potential Source material of odour	Primary Control Measures	Contingency Measure	What actions are taken and who is responsible
Overflow/bypass pumping chamber	Trade effluent	Continuous flow. Sealed chamber with small vent.	Consider provision of masking sprays around area.	Process Controller will be responsible for inspections; initiating maintenance; arranging cleaning. If a problem is identified that has no obvious appropriate actions then a meeting between interested parties including PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM
Inlet pumping station	Trade effluent	Continuous flow	Consider provision of masking sprays around area.	Process Controller will be responsible for inspections; initiating maintenance; arranging cleaning. If a problem is identified that has no obvious appropriate actions then a meeting between interested parties including PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM
Floc tank	Trade effluent	Closed tank, connected to OCU	Consider provision of masking sprays around area	Process Controller will be responsible for inspections of the tank; initiating maintenance; arranging cleaning. If a problem is identified that has no obvious appropriate actions then a meeting between interested parties including PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM
Dissolved air flotation tank	Trade effluent	Operational monitoring and adherence to maintenance requirements	Odour extraction from floc tank prior to effluent arriving within DAF tank.	Process Controller will be responsible for inspections of the DAF; initiating maintenance; arranging cleaning. If a problem is identified that has no obvious appropriate actions then a meeting between interested parties

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Process Unit Description/Area	Potential Source material of odour	Primary Control Measures	Contingency Measure	What actions are taken and who is responsible
				including PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM
Aeration tank	Trade effluent	Operational monitoring and adherence to maintenance requirements of ASP and aeration system and DO control to maintain aerobic conditions	Consider provision of masking sprays around area Odour extraction from floc tank prior to effluent arriving within aeration tank.	Process Controller will be responsible for inspections of the ASP; initiating maintenance; arranging cleaning. If a problem is identified that has no obvious appropriate actions then a meeting between necessary parties such as PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM
Final settlement tanks distribution chamber	Trade effluent	Operation of ASP – to treat wastewater removal of potentially odourous compounds	Odour extraction from floc tank	Process Controller will be responsible for inspections of the chamber; initiating maintenance; arranging cleaning. If a problem is identified that has no obvious appropriate actions then a meeting between necessary parties such as PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM
Final settlement tanks	Trade effluent	Odour extraction from floc tank. Operational monitoring and adherence to maintenance requirements for FSTs-ensuring sludge removal	Consider provision of masking sprays around area	Process Controller will be responsible for inspections of the tanks; initiating maintenance; arranging cleaning. If a problem is identified that has no obvious appropriate actions then a meeting between interested parties including PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM
Sludge storage tank	Sludge from treatment process	Fully enclosed tank connected to OCU. Hatches are kept shut except for inspections or maintenance.	Consider provision of masking sprays around area.	Process Controller will be responsible for ensuring raw sludge storage times are minimised; monitoring of storage tank condition; ensuring that any covers and/or hatches are closed; operation of the tank mixing system initiating reactive/ proactive maintenance.

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Process Unit Description/Area	Potential Source material of odour	Primary Control Measures	Contingency Measure	What actions are taken and who is responsible
		Routine operation checks and maintenance to ensure plant is functioning as per design. Overflow within tank returns excess sludge to inlet pumping station (alarm on overflow).	Portable monitoring equipment (Jerome H2S monitor).	If a problem is identified that has no obvious appropriate actions then a meeting between interested parties including PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM
Sludge loading bay	Sludge from ASP	Fixed pipe connection point via Bauer coupling.	Spillage procedures for immediate wash down and removal of spillage.	Tanker operative responsible for reporting and clearing of any spillage. Process Controller responsible for inspections of the tanker connection point; initiating maintenance; arranging cleaning.
OCU	Odorous air extracted from process	Routine operation checks and maintenance to ensure plant is functioning as per design Provision of Duty/Standby equipment for critical kit such as extract fans - with auto change over in the event of equipment failure Online (SCADA) monitoring of OCU inlet and outlet for the removal of Hydrogen sulphide.	Consider locating temporary odour control unit to site in the event that all treatment stages of an OCU are required to be out of service at the same time for prolonged periods (e.g. planned shutdowns) (See Emergency Contacts List) Consider provision of masking sprays around area (See Emergency Contacts List).	Process Controller will be responsible for inspections of the unit; initiating maintenance; assessing OCU performance and operation; monitoring performance. Contact ERA for advice on permit requirements If a problem is identified that has no obvious appropriate actions then a meeting between interested parties including PM, TO, MM, FSE's & PC's instigated by the PC will take place ASAP. The ultimate responsibility for resolving the issue falls to PM.

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9. Odour Control Unit

Although the site is sited within a rural location, the trade effluent has the potential to be odorous and there are nearby sensitive receptors; odour modelling identified that control of odours is required in order to minimise the risk of odour impact to the local community.

Based on the findings of the odour model, a dedicated OCU is to be installed to collect and treat odorous air from the floc tank and the sludge storage tank. The odorous air is collected and treated before being discharged via a stack.

The OCU design and technology selection has yet to be finalised, but at present consists of a single stage dry scrubbing treating air from the covered floc tank and sludge holding tank.

Activated carbon is a recognised BAT process in treating odour from effluent/wastewater treatment systems. Activated carbon typically offers the lowest outlet odour concentration of any of the odour treatment technologies and has the capability to treat a wide range of odorous compounds and treat fluctuations in odour load with no adaptation lag/ adjustment period required by some other technologies.

The OCU design also incorporates additional process capacity to treat air from the DAF process should we find it necessary to provide odour control to this process in the future.

We are current evaluating whether there are any additional benefits in providing a biological treatment stage prior to the activated carbon system. Once we have finalised the OCU design we will amend this OMP accordingly.

The OCU will be designed to provide >98% removal of H₂S and will include continuous upstream and downstream H₂S monitoring. Should the level of H₂S removal drop below 80% for more than 3 days then investigations will be undertaken into the performance of the OCU and necessary remedial actions undertaken.

As the OCU will be a relatively small unit it is expected that any necessary remedial actions can be undertaken within 1 working day, therefore during this period the unit will be bypassed and we will utilise stack dispersion of any odours during this limited period. Should a longer period be required then consideration will be given to locating a temporary odour control unit to site

10. Training

As part of the company EMS, formal training related to relevant elements of the OMP will be in place for all site employees.

Site visitors will also be made aware of any relevant issues or reporting requirements during their site induction.

11. General considerations

United Utilities Water Ltd is also committed to the following principles of H4 guidance:

- The integrity of the site infrastructure (including roads, buildings, ducts, pipes, drainage, process equipment and controls) will be regularly inspected and maintained.
- Suitable critical spares and consumables will, where feasible, be kept in stock to ensure that any problems with odour control equipment can be resolved in a timely manner so far as reasonably practicable.
- A high level of site cleanliness will be maintained. This will be enforced by the site management.

- The company will proactively engage with the neighbours to minimise their annoyance including responding to their complaints effectively. There is a UUW Standard Operating Procedure (SOP) for Odour and General Complaints and this is followed by site staff.
- The Environment Agency will be notified in the event of odorous releases or other relevant conditions that have actual or potential to lead to pollution.

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12. Odour Risk Assessment

Cause of elevated odour	How the severity is measured	Anticipated odour level	Likelihood (pre controls)	Control measures	Actions if odour starts causing a problem
Receipt and Management of Waste					
Treatment of waste (trade effluent)	Olfactory sniff test assessment during operations	Localised	Very low/none	<p>Delivery and movement of trade effluent via sealed pipelines.</p> <p>Floc tank and sludge storage tanks connected to site OCU.</p> <p>All potential odour sources have been included within the odour model.</p>	<p>Check for odour source.</p> <p>The Process Controller will be responsible for ensuring remedial actions are undertaken.</p>
Containment					
Damage to vessels or roofs (where fitted)	Visual inspections if odours reported	Smelt outside tanks	Medium/low	Visual inspections if odours reported	<p>Immediately arrange necessary repairs, including provision of temporary covers if considered suitable.</p> <p>The Process Controller will be responsible for ensuring remedial actions are undertaken.</p>

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Cause of elevated odour	How the severity is measured	Anticipated odour level	Likelihood (pre controls)	Control measures	Actions if odour starts causing a problem
Valves, pipes or pumps damaged or malfunctioning	Regular checks Detected by site staff	Localised	Low	Selection of correct pipework for pressure and flow loads. Regular checks. Clean any spills promptly. Planned preventative maintenance. Repair kits quickly available.	Reconsider pipe design if repetitive failure
Odour Control Unit					
Odour control unit damaged or malfunctioning	Regular checks Detected by site staff	Potentially high within limited area	Medium	Regular checks. Planned preventative maintenance. Critical spares kept available.	Installation of temporary OCU's if required, this may take up to ten working days. The Process Controller will be responsible for ensuring remedial actions are undertaken.
Transport and Dispersion					
Wind blowing towards sensitive receptor	Odour tours Investigation of complaints received	Nuisance odour found outside site boundary, or assessed as likely to happen.	Medium	Weather prediction and monitoring.	Schedule maintenance activities that could cause odour outside sensitive weather windows.

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Cause of elevated odour	How the severity is measured	Anticipated odour level	Likelihood (pre controls)	Control measures	Actions if odour starts causing a problem
Vehicles	Smell	Transient during sludge loading, associated with site	Low	Tankers sealed before leaving tanker loading area.	Review causes and undertake remedial actions within five working days. The Process Controller will be responsible for ensuring remedial actions are undertaken.
Other					
Processing equipment damaged or malfunctioning	Regular checks. Detected by site staff	Localised	Medium	Emergency callout contracts for selected equipment and facilities. Regular checks. Planned preventative maintenance.	Review causes and undertake remedial actions within five working days (where possible). The Process Controller will be responsible for ensuring remedial actions are undertaken.
Failure of electricity supply	Lights and equipment not functioning	Localised	Medium	The trade effluent would default to the bypass system.	Delivery of emergency generators as soon as possible
Human error – staff, managers, visitors	Regular checks Detected by site staff	Potentially high	Medium	Staff training and supervision. Visitor inductions. Regular checks. Clean any spills promptly. Near miss reporting.	Review causes and undertake remedial actions within two working days. The Process Controller will be responsible for ensuring remedial actions are undertaken.

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Cause of elevated odour	How the severity is measured	Anticipated odour level	Likelihood (pre controls)	Control measures	Actions if odour starts causing a problem
Malfunction or damage caused by unauthorised visitors	Regular checks Detected by site staff	Potentially high	Medium	Security procedures including identified key holders and daily checks. Wider sewage works security measures are in place including perimeter fence with controlled access gates. Establish contact with local Police and Fire Services. Repair damage and clean spills promptly.	Review causes and undertake remedial actions within five working days. The Process Controller will be responsible for ensuring remedial actions are undertaken.
Fire and/or explosion	Detected by site staff	Potentially high	Very low	Staff training and supervision. Fire extinguishers placed for quick access and checked regularly. Establish contact with local Fire Service.	Immediately review causes and undertake remedial actions. The Process Controller will be responsible for ensuring remedial actions are undertaken.
General Maintenance of equipment or facilities	Detected by site staff.	Odour intensity assessed as likely to cause nuisance.	Medium	Staff training and supervision. Competent contractors used. Delay work when conditions are not favourable. Permit to Work used where there is a risk of spillage or other substance release. Mobile odour misters can be deployed if needed.	Review causes and undertake remedial actions within five working days. The Process Controller will be responsible for ensuring remedial actions are undertaken.

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13. Monitoring Plan

Monitoring is essential to our operational control. These are some of the benefits it provides:

- Assessing the nature and extent of a potential risk of odour pollution.
- Investigating sources and pathways.
- Aiding management and control of the process.

Control measures identified in the Risk Assessment in Section 12 to be enacted if required.

Monitoring consists of:

- Sniff testing to be undertaken daily during operation of the facility as part of site routines and in response to concerns or complaints or when a potential risk of odour pollution is suspected. An assessment will be made factoring in the dilution and adaption principles. As a minimum the date and time, location, odour intensity and wind direction are recorded after each test.

Records of the information received from this monitoring will be kept, and acted promptly on any findings that suggest there is a potential risk of odour pollution.

14. Responding to Odour Concerns and Complaints

Odour complaints are always taken seriously by U UW. All reports received by the Customer Team will be logged and then referred immediately to the Process Controller and/or the Process Operator. An Odour Complaint Form will be completed by the Process Controller/Process Operator or another nominated person, in accordance with U UW's SOP for Odour and General Complaints and this is followed by site staff.

All reports of an environmental investigation will follow the same format:

- Background and completion of Odour Complaint Form
- Investigation and results
- Conclusions and recommendations
- Discussions with relevant Regulators
- Communication with the complainant
- Preventive measures to reduce the probability of re-occurrence

As part of U UW's commitment to proactively engage with our neighbours to minimise their annoyance, we will encourage odour reporting from neighbours and take action on the information received. The aim of this is to improve our relations with key members of the community and to improve the measures we take to ensure there are no offensive odours escaping from our site boundary, particularly in sensitive areas. Our staff are also given the opportunity to raise concerns about odour at any time, in addition to any routine or one-off sniff testing duties they are given.

Odour concerns and complaints will be substantiated by 'sniff testing' carried out by an employee. Where it is reasonably practicable, two employees will do the test independently at the same time to help ensure data quality. Sniff testing will be done at the location of any concern or complaint, at sensitive receptors relevant to the wind

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direction, and finally at the site boundary. If testing is done from a vehicle, it must not contain strong scents such as deodorisers.

Employees with a cold, sinusitis, sore throat or who have had strong food or drinks (e.g. coffee) within the last 30 minutes will not be able to carry out sniff testing. Employees who are routinely exposed to the odours may not be able to detect or reasonably judge the intensity of odours off-site. Where it is reasonably practicable, we will use office staff or people who have not recently been working on the site to do this where a concern or complaint has been received.

The sniff test will also identify any external activities that could be either be the source of the odour, contribute to the odour, or be a confounding factor, taking into account that an odour may become diluted or even change over a distance.

Where odours are substantiated as coming from our activities, the following questions as a minimum will be asked as part of the investigation process.

- Is the process under control?
- Have odour containment measures failed, e.g. has a door been left open; have adverse conditions, such as weather, overwhelmed containment structures?
- Has the OCU failed?
- Is there a health risk to the local community?

An investigation could show that we need to temporarily stop some site activities or take some other remedial action, and we have appropriate contingency plans in place for this. A written record will be kept outlining the chosen course of action.

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15. Contacts

United Utilities – Wigton Trade Effluent Dosing Installation	
ODOUR MANAGEMENT PLAN	
EMERGENCY CONTACT LIST	
UU Area Business Manager –	07785456546
UU Environmental Regulatory Advisor (ERA) – Louise Lund	07824 834 335
UU Specialist Odour Engineer – Paul Kynaston	07519 532066
UU Integrated Control Centre (ICC) Remote Monitoring Controller West Desk	03450 726097 Opt. 3
UU Integrated Control Centre (ICC) Response Manager	07713 887302/80981
Environment Agency – Local Inspector - Kevin Lodge	020302 55784
Environment Agency – Emergency Hotline (24hr)	03708 506 506
SITE ADDRESS	
Wigton Trade Effluent Dosing Installation, Wigton WwTW, Standing Stoens, Oulton Road, Wigton, Cumbria CA7 9DP	
OTHER ACTIONS	
For out of hours emergencies contact the Operations Response Centre for standby process controller, FSE and emergency numbers.	
Notify the Environment Agency without delay of any accident which has caused, is causing or has the potential to cause significant pollution, as required by the Environmental Permit	
Procedure for EA notification:	
<ul style="list-style-type: none"> • Site Operations to contact ERA who will complete Part A of Schedule 6 notification form after liaison with maintenance, process controller etc. • During out of hours Site operations to contact EA hotline then inform ERA asap • Email Part A of Schedule 6 notification form to the local EA Officer marking for their attention • Provide copy of completed form to the Waste Compliance Team and EA correspondence • ERA to complete Part B of Schedule 6 notification form as soon as practicable, following procedure as per Part A 	

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16. Odour Complaint Form Pro-forma



Odour diary

About you									
Customer name									
Telephone number									
Email									
Address (including postcode)									
Preferred telephone contact times									
Date of odour	<table border="1"> <tr> <td>D</td><td>D</td><td>M</td><td>M</td><td>Y</td><td>Y</td><td>Y</td><td>Y</td> </tr> </table> Sheet <input type="text"/>	D	D	M	M	Y	Y	Y	Y
D	D	M	M	Y	Y	Y	Y		
Time of odour									
Location of odour (if not at the above address)									
What does it smell like? (please tick all as appropriate)	<input type="checkbox"/> Rotten eggs <input type="checkbox"/> Fish <input type="checkbox"/> Earth/Compost <input type="checkbox"/> Cabbage <input type="checkbox"/> Bleach <input type="checkbox"/> Vinegar/Acid <input type="checkbox"/> Oil <input type="checkbox"/> Sweet/Pear drops <input type="checkbox"/> Rotten Vegetables/Onions <input type="checkbox"/> Other (please specify)								
Intensity - how strong was the smell? (please tick as appropriate)	<input type="checkbox"/> 0 - No odour <input type="checkbox"/> 1 - Very faint odour <input type="checkbox"/> 2 - Faint odour <input type="checkbox"/> 3 - Distinct odour <input type="checkbox"/> 4 - Strong odour <input type="checkbox"/> 5 - Very strong odour <input type="checkbox"/> 6 - Extremely strong odour								
How offensive was the smell? (please tick as appropriate)	<input type="checkbox"/> 0 - Neutral odour/no odour <input type="checkbox"/> 1 - Mildly unpleasant <input type="checkbox"/> 2 - Moderately Unpleasant <input type="checkbox"/> 3 - Very unpleasant <input type="checkbox"/> 4 - Extremely unpleasant								
How long did it go on for? (time)									
Was it constant or intermittent in this period?									
Weather conditions (e.g. dry, rain, fog, sleet or snow)									
Temperature (very warm, warm, mild, cold or degrees)									
Wind strength (none, light, steady, strong, gusty)									
Wind direction (e.g. from North East)									

Once completed please email the completed form as an attachment to: *****@uuplc.co.uk

About us

United Utilities is the North West's water company. We keep the taps flowing and toilets flushing for seven million customers every day. From Crewe to Carlisle, we work hard behind the scenes to help your life flow smoothly.

United Utilities Water Limited, Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Warrington WA5 3LP.
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