

Wastewater Treatment	Reference: WwP/I/3033/01/03
Site Specific Instruction (SSI)	Version: 01 Issue date: 13/10/2023
	Expiry date: 13/10/2024

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## 1. Purpose

This Site Specific Instruction describes the requirements, procedures and actions to be taken in the event of an environmental accident at Leigh IED Installation. This plan will support and align with Leigh Environmental Risk Assessment and other key documents forming the management system.

## 2. Scope

Environmental accidents shall cover emissions (including potential emissions) to air, land or water that can to cause harm to the environment.

# 3. Responsibility

Instruction to be carried out by a trained person designated by the Production Manager.

## 4. Location of Site

The Installation land is owned and occupied by United Utilities as part of the Leigh WwTW.

Nearest Site of Scientific Interest (SSSI)	Hope Carr Nature Reserve approximately 160m South of the installation	
Nearest receptor	There is an industrial premises of greenfold way approximately 20m East of the installation Boundary	
	The nearest Residential receptor is approximately 190m North North East of the installation.	
Closest natural watercourse.	Pennington Brook approximately 450m to the South West of the installation Boundary	
Ground	The installation area is underlain by: Made ground Drift geology consisting of alluvium, glaciofluvial and glacial till	
	A North-Northwest Trending fault is indicated to cross the WwTW  The WwTW is in a Source Protection Zone III.	



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## 5. Management

UU operates a Quality and Assurance System which is certified against the ISO9001 and ISO14001 standards and which is applicable to the Leigh WwTW. The site also operates to UU Health and Safety procedures. All relevant procedures are made available to employees through the company intranet.

#### 6. Acts of Vandalism

Malevolent acts like vandalism is included in the site Environment risk assessment (Follow environmental risk assessment in table 1.1).

#### 7. Containment of Fire Water

Ensure all fire water is returned to the site drainage. Fire water can be isolated and tested prior to returning all flows to the head of the treatment works via the sealed drainage system for full treatment by co-settlement in the Primary settlement tanks.

# 8. Failure of Pressure Vacuum Relief Valves (PVRV)

All digesters have a duty standby PVRV which are exercised and swapped over regularly. To carry this out please follow digester standard operating procedure (SOP) and primary digester site specific instructions (SSI). (Follow links in table 1.1).

#### 9. Vehicle Collision

Please follow environmental risk assessment available on the Quality assurance management systems. (Follow links in table 1.1).

## 10. Failure of Main Services

Please follow power loss contingency plan available on the Quality assurance management systems (Follow links in table 1.1).

## 11. Operator Error

All staff have training roles matrix in place and receive one to one coaching with production managers, SOPs and SSI's all ensure staff are knowledgeable and competent to carry out the role. If operator errors do occur then appropriate action is taken such as re-training, review and update SOPs.



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## 12. Accessibility of Control Equipment in Emergency Situations

Follow emergency procedures in the link from table 1.1.

## 13. Risk of Explosion

Trained Digester Safety Controllers (DSC) specialise in the management of safe practices to prevent the risks of fire, combustion or explosion and harm to human health and ensure continuity. The DSC role is given to one of the process staff.

The DSC must have attended the specialist DSC training, as well as Hazardous area training and should hold a BTEC or equivalent in the operation of wastewater treatment plants. The DSC is trained in the practical and theoretical knowledge of the operation, maintenance and commissioning of potentially explosive atmospheres associated with sewage handling and which includes the installation. Any changes to normal operational procedures within the designated safety zones must be approved by the DSC who approves written authorisations for Safe Systems of Work on sludge digesters and ancillary equipment and ensures that the systems and materials used are compliance with the Codes of Practice.

In addition the DSC carries out an annual inspection to ensure that the safety requirements set out in the zoning diagrams and documentation are still current. Chemicals must be stored as per the Coshh data on Chem-watch. Site data sheets available through a designated CoSHH assessor. (Refer to references in table 1.1).

Given the plant has a comprehensive monitoring, detection, and shutdown system and is manned/monitored 24 hours a day the risks posed by fire are deemed to be sufficiently managed and mitigated.

## 14. Lightning Strike

In the event of a strike follow Operational incident management procedure in the link from table 1.1.

## 15. Incidents – Roles and Responsibilities

The incident management summary guidance provides the necessary roles and responsibly matrix (Refer to incident manager summary guidance booklet OPMC-RES-TRG-002) Link in table 1.1.



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## 16. Communication with Relevant Authorities

Incident management procedures are located on the quality assurance system. This details the incident process, Specific roles, incident scenarios and advice. (Refer to Accident Investigation and Reporting link in table 1.1).

Table 1.1

Key procedures and documents required for the effective management of environmental accidents and their locations are;

Management System	Link
Accident Investigation and	Operational Incident Management Guidance
Reporting	EPR Waste and Installation
. 3	Incident Notification and Reporting WwP/S/001/01/14
	<u>Digester Isolation Procedure.docx WwP/I/3033/15/14</u>
	Process Loss Contingency Plan.doc WwP/I/3033/30/01
	<u>Digestion Biogas Emergency Plan.docx WwP-I-3033-17-18</u>
	Digester High Pressure.docx WwP/I/3033/15/06
	Digester Indirect Purge Plan.docx WwP-I-3033-15-14-01
Emergency Procedures	Digester Loss of Containment.docx WwP/I/3033/15/15
	Gas Bag Isolation and Purging Procedure.docx
	<u>Digester Indirect Purge Plan.docx WwP-I-3033-15-14-01</u>
	Flood and Spill Plan.doc WwP-I-3033-30-03
	Code of Practice - Installations in Potentially Explosive Atmospheres associated
	with Water & Wastewater
Risk Assessment	Environmental Risk Assessment - Large Site (more than 2000 PE).xlsx
RISK ASSESSITIETIC	WwP/F/3033/25/19
	P&ID's Biogas and Sludge
References	On Site (Drainage) Pumping Station.doc WwP/I/3033/21/02
References	DSEAR Report and Zoning
	<u>Chemwatch</u>



Wastewater	Treatment
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United Utilities Plc – Leigh Wastewater Treatment Works				
ENVIRONMENTAL ACCIDENT MANAGEMENT PLAN				
	Likely Causes	and Consequences of Environmental Accid	lent	
Causes  Malfunction of the flare stack (i.e. failure to ignite)  Malfunction of the odour control unit	Release of surplus biogas to atmosphere  Release of untreated odour to atmosphere	Flare Stack Operations.docx     Flare stack isolation.docx     Odour Control.doc     EPR Odour Management Plan.docx     Activated/Dry Media Odour Control Units SOP	Additional assistance  Uniflare  ERA  Process Safety representative  Higgins & Hewins  Paul Kynerston  ERA	
Release of any biogas – fugitive emission from condensate pot, water seal etc. or PRV / PVRV valve (i.e. operating whilst gas holder not full)	Release of surplus biogas to atmosphere	Biological Odour Control Units.docx      Biogas Protective devices WwP/S/001/17/17      Code of Practice - Installations in Potentially Explosive Atmospheres associated with Water & Wastewater	<ul> <li>Process Safety representative</li> <li>ERA</li> <li>ICC</li> <li>Health &amp; Safety representative</li> </ul>	
Loss of containment of storage tanks (chemical/sludge/oil) caused by structural or control failure	Discharge of untreated sludge or raw materials to surface water.  Land/groundwater contamination	Disposal of Spillage WP/S/001/22/06? This is WTW SOP awaiting Ww one	<ul> <li>Environmental Services or other Contract Tanker Service</li> <li>ERA</li> <li>ICC</li> <li>Health &amp; safety representative</li> </ul>	
Fire or increased risk of fire (i.e. oxygen found in biogas)	Fumes, structural damage, control loss	Code of Practice - Installations in Potentially     Explosive Atmospheres associated with Water &     Wastewater      Digestion Biogas Emergency Plan.docx	<ul> <li>Emergency Services</li> <li>Process Safety Representative</li> <li>Health &amp; Safety representative</li> <li>ICC</li> <li>Biogas purging contractors</li> <li>ERA</li> </ul>	



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Site security breach	Pollutant emissions	Security Measures WP/S/001/29/06	• Police
	to air land or water		• ICC
			• ERA
			• ICC



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CONTACT LIST				
UU Production Manager: Allan Frew				
UU Area Business Manager: Simon Holding				
UU Area Production Manager: Lisa Turner				
Site DSC : Frank Hindley				
Site DSC : Andrew Leicester				
Bio-resource Production Engineer : Harry Schulte				
UU Site Technical Officer : Matthew Pendlebury				
UU Environmental Regulatory Advisor (ERA): Andy Thomson				
UU Integrated Control Centre (ICC)	03450 726 097			
UU ICC Duty Manager				
Process Safety Manager: Mark Hughes				
Odour Principle Engineer: Paul Kynaston				
Customer Liaison Team - Customerrelationsservicedrafts@uuplc.co.uk				
Stakeholder Management (Corporate Affairs): Jemma Parkinson				
Health and Safety Representative: Karen Harris				
Waste Services Manager: Chris Ingham				
Waste Disposal & Recycling Manager: John Lightfoot				
Flare maintenance: Gary Bates				
<b>Purge Contractors</b> Various listed in Digestion Biogas Emergency Plan WwP/I/3033/17/18. A copy is available inside the Emergency locker on site.	Various			
Fire Service	01942 650 402 or 999			
Police	0161 856 7229 or 999			
Environment Agency – Local Inspector – Adam Blacklock	02030 250 378			
Environment Agency – Emergency Hotline (24hr)	0800 80 70 60			
Local Council	01942 489 626			
SITE ADDRESS				
Leigh WwTW Sludge Treatment Facility , Hope Carr Lane, Leigh WN7 3XB				



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## **NOTIFICATION**

United Utilities may be required to notify the **Environment Agency** using a Part A Notification / Schedule 5 form without delay of any accident which has caused, is causing or has the potential to cause significant pollution, as required by Clause 4.3.1 and 4.3.2 of the Environmental Permit.

For further information relating to notifications and guidance on scenarios that are reportable and timescales please refer EPR Waste and Installation Incident Notification and Reporting WwP/S/001/01/14 document.

- During 8am and 4pm Monday to Friday contact your local ERA in the first instance or Lead ERA David Henry on 07771 353695.
- Outside of these hours and Bank Holidays please contact ICC.

Please include your local ERA in email correspondence or 'waste compliance mailbox.