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1. Safety

Any person carrying out any of the following instructions shall do so in accordance with United Utilities Ltd. Blue Book and all Generic Risk Assessments (GRAs), details of which are contained in United Utilities Ltd. Health and Safety Policy – Organisations and Arrangements document and available via the UU intranet site.

If in carrying out this instruction, it is not possible to rectify any problem encountered within a reasonable timescale, the Production Manager or senior equivalent person must be contacted.

All other applicable regulatory and statutory requirements shall be observed at all times.

Detailed operating instructions, control philosophies and technical information may be found in the following;

- **Process Loss Contingency Plans**
- **Compliance Action Plans**
- **Environmental Permits**
- **Accident, Incident and Emergency Management Plans**
- **Drainage Plans**
- **Environmental Risk Assessments**
- **O & M Manuals**
- **Control philosophies**

2. Responsibility

All Standard Operating Procedures, Instructions and other documented operational procedures and activities are to be carried out by the Process Controller or other trained person designated by the Production Manager.

If in carrying the instruction it is not possible to rectify any problem encountered within a reasonable timescale the Production Manager or senior equivalent person must be contacted.

Any operational problem that cannot be dealt with by normal operational procedures shall be classed as an INCIDENT and the current issue of UU Incident Management Procedure shall be referred to and SOP (WP/S/001/30/01 Incident Response).

All actions and communications carried out while applying any Standard Operating Procedure, Instruction or other documented operational procedure or activity shall be recorded using form WwP/F/001/31/08 Site Diary Log.

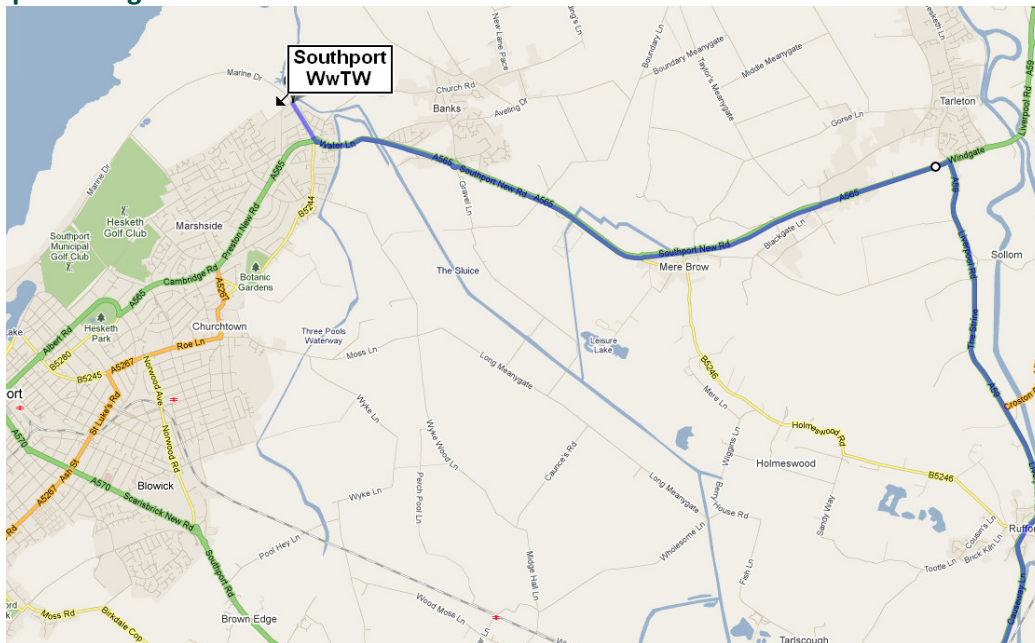
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3. Site Location and Access

Contacts


- United Utilities Integrated Control Centre (ICC) East Desk: 0345 072 6097
- Site Address: Southport WwTW , Marine Drive, Coastal Rd, Crossens, Southport, PR9 9YL
- Operations Area: Merseyside
- Production Manager: Marc Dack 07798 924630
- Process Controller: Ian Ormond 07775 521682
- Process Controller: Jamie Holmes 07768 178221
- Authorised Electrical F.S.E.: Peter Sutter 07775 521598

Map Showing Location of Works



Directions

From Junction 27 of the M6, take the A5209 towards Burscough/Parbold. Turn right onto the A59 and after 5 miles turn left onto the A565 (Southport). Follow A565 for approx. 4 miles until Roundabout with the Plough Inn on the left. Take the 3rd exit onto Marine Drive (Costal Road). Works is about 400yds on the left.

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Local Access Instructions / Restrictions

- Past experience has proved that there are no local problems with generator access to the site. However, before accessing site please contact on site Process Controllers to check for any temporary access problem.
- Grid Reference: SD 3701 2078.

4. Power Loss

Initial actions

- Contact Scottish Power ‘No Supply Helpline’ on 0800 001 5400 to ascertain estimated time for return of electrical supply.
- Contact the Integrated Control Centre (ICC) on 0345 072 6097 to update them on the status of the incident and to inform Environment Agency of power outage, also request adequate presence of Field Service Engineers for connection and operation of the generators.
- Arrange for sufficient Operations personnel to be present during the power outage to assist the FSE’s and to monitor the plant and processes.
- A general guide for manning levels is one FSE per generator and one member of Operations per generator.
- Current framework agreements with Generator Power: 0845 601 2187.


Generators

Generator Size (kVA)	Cable Length	Position On Site	Connection Details	Plant Supplied
500	20m (min)	HV	Generator Wiring in Point	AREA 100 Ferryside
500	20m (min)	HV	Generator Wiring in Point	AREA 100 Interceptor
500	20m (min)	HV	Generator Wiring in Point	AREA 300 Storm /Tidal / Admin

Note: Only Inlet, Storm and Tidal pumps will run (No full treatment).

Local Guidelines

- **Alternative Generator Options:** if three 500 kVA units are unavailable then TWO 1000 kVA can be used.
- **Start-up Procedure:** ideally generators should be started and brought “on-line” by FSE and in accordance with operational needs. Following start-up, check and monitor operation of process plant.
- **Re-fuelling:** maintain sufficient fuel stocks stored in bunded fuel cubes/bowsers
- **Hazards Caused by Power Failure:** Lack of site lighting and No Process alarms.

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- **Security:** ensure provision of adequate manpower for security of site, process and to prevent theft/vandalism.
- **Environmental Considerations:** silenced generators should be used in order to reduce nuisance to our neighbours. Ensure that flood lighting does not cause annoyance to neighbours.
- **Additional Information:** Check on Local site plan for Generator link up point.

5. Biological Loss

Assumptions

- Activated sludge has been killed off by illegal toxic discharge.

Immediate actions

- Start Incident Log and take sample for analysis.
- Contact the Integrated Control Centre (ICC) on 0345 072 6097.
- Contact Trade Effluent if thought to be a high toxic discharge.
- Do toxicity analysis on incoming sewage – contact treatability Lab

Consider


- Effect on local digestion plants.
- Whether still entering the works.
- Duration and extent of toxic effect.
- Monitor effect on BOD removal.
- Contact TE concerning high toxic levels.

Actions

Clear Deep Shafts and final tanks of toxic sludge

Consider:

- Has the toxin been adsorbed onto the floc or has it passed through the works.
- If adsorbed onto sludge floc, increase the SAS rate from normal of 1.5 MI/d to maximum.
- Tankering of toxic un-thickened sludge to appropriate works – to remove 2MI/day SAS would require 87 tankers per day until ASP performance improved. (Not feasible)
- Increase surplussing with temporary GBT (40m³/hr) and/or additional centrifuge.
- Storage in storm tanks after consultation with the EA.
- Consider effect of supernatant liquors.

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Import Activated sludge

Consider:

- Volume needed: 480 m³ per day
- Closest source: Hillhouse, Skelmersdale, Liverpool
- Check condition of activated sludge at these works – analyse if required.
- Monitor respiration rates of ASP process for recovery.
- Carry out relevant on site analysis to monitor recovery.

General Considerations

- Duration and source of increased tankering operation – Contact Environmental Services.
- Site manning levels (shift work).
- Total MLSS: 36MI @ 3000Mg/l, equivalent to 108 tds. (Includes contents of ASPs & FSTs)
- Equivalent volume @ 5% DS – 2160m³
- Equivalent volume @ 20% DS – 432m³

Historically it has been shown that the aeration will recover to 90% efficiency, with 480m³/d of activated sludge from an unaffected plant, within 4 days.

Emergency Contact No's


Tankers

Bioresource Contacts:

1. Natalie Edmundson: 07388 718533
2. Bill Jenks: 07384 459940
3. Nicola Connor: East & cake - 69796 /07384 459980 – **East and Cake**
4. Lee Roberts: Logistics Team Leader - 50599 / 07827 848026

Vactor Services:

1. Kat Clough: 07733 307100
2. Sue Hampson: 07768 840663

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Pumps

Selwoods: 0845 0733 835

(Out of hours an answer phone service will operate giving a list of emergency contact no's.)

6. Flow Loss

Cause of flow loss

- Sewer blockage / sewer collapse

Action

- Contact ICC for any information they may have regarding the loss of flow.
- Inspect the inlet area to see if the blockage / collapse is visible
- Lift covers and inspect inlet sewer to see if the blockage / collapse is visible
- Liaise with Network or Asset Manager to locate blockage / collapse and instigate repair work.

Cause of flow loss

- Actuated penstock failure. (sewer inlet)

Action


- If power is lost to whole site, contact Scottish Power to determine estimated duration of power outage.
- If power loss is local to process area, contact electrical FSE to locate fault.
- If the penstocks have failed in the closed position, they can be manually opened, by engaging the hand wheel, using the lever located underneath. You can then turn the hand wheel anticlockwise to open the penstock.

Cause of Flow Loss

- Screen failure inlet works

Actions

- If power loss is local to process area, contact electrical FSE to locate fault.
- The inlet and outlet penstocks to each screen can be manually opened, by engaging the hand wheel, using the lever located underneath. You can then turn the hand wheel anticlockwise to open the penstock.
- The screens cannot be operated without power but will allow flow to pass through them until the holes in the screen become blinded.
- In the event of total power failure to the screen control panel open the two emergency bypass penstocks using the hand wheel.

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Out of hours

- For out of hours emergencies contact the Remote Monitoring Centre (RMC) for standby process controller, FSE and emergency numbers.

Contacts

- Electricity Northwest: 0800 195 4141
- Environment Agency Incident Hotline: 0800 80 70 60
- Integrated Control Centre (ICC): 0345 072 6097

For United Utilities personnel, PCs, FSEs, Production Manager, Asset Manager etc. Contact Integrated Control Centre (ICC)