



START UP INFORMATION FOR PACKAGED WASTEWATER TREATMENT PLANTS AFTER SHUT DOWN PERIOD

Following the actions that the UK government established in March 2020 to help to reduce the transmission of coronavirus in our communities, certain businesses and venues have been required by law to stay closed to the public for a prolonged period.

These include businesses such as those listed below that use off-main wastewater treatment systems such as packaged wastewater treatment plants to treat their sewage:

- restaurants and cafes
- pubs
- council facilities
- schools
- indoor and outdoor leisure facilities like golf clubs
- hotels, hostels, bed and breakfasts, campsites, caravan parks, and boarding houses for commercial/leisure use

For those establishments that have been closed due to the COVID-19 outbreak, British Water would recommend the following course of action for your package wastewater treatment plant. Although large plants might allow flexibility in their processes with low inflow.

Set out below are examples of measures that you should be taking to protect your equipment, enable a smooth start and to minimize the risk of pollution when restarting your plant.

Please be aware that not following the closure and restart advice could potentially lead to problems meeting your environmental permit or other regulatory requirements from your regulator such as the [General Binding Rules \(GBRs\)](#) for small sewage discharges in England, [Natural Resources Wales](#), [Scottish Environment Protection Agency](#) and [Northern Ireland Environment Agency](#). Remember that anyone who makes discharges to the environment, including sewage effluent, has a responsibility to ensure their discharge is not polluting and meets the relevant regulatory requirements. Taking proactive action will help remediate any problems and minimise the risk of causing pollution and being subject to any associated enforcement actions.

STARTUP

If the plant was decommissioned as per the Operation & Maintenance manual please follow the instruction for start-up. If the plant was simply switched-off (not ideal practice), it is important to make sure that all electronics are in order and no failure is displayed on the control panel (try test-mode for some time where applicable), re-commissioning may be required.

Please contact a qualified [British Water Accredited Service Technician](#) to follow the guidance below that is relevant to your wastewater treatment plant before re-opening your business.



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SAFETY FIRST:

- Keep pets and children away from the area particularly when any work is being undertaken at the packaged treatment plant
- Make sure that whoever is undertaking any work observes HM Government Social Distancing (Covid-19) guidance. The appropriate PPE must be worn and handwashing/sanitising must be carried out.
- Before opening the tank chambers please ensure the area is well ventilated and engineers are wearing protective face masks. Sewer gases can accumulate in sewage treatment plants, particularly Hydrogen Sulphide, which can be very dangerous even at low levels. (Sewer gas is a complex mixture of toxic and nontoxic gases produced by the decomposition of organic household or industrial components of sewage).

CHECKS:

- Make sure that the compressor/blower is operational.
- Inspect the air filters on the top of the compressor and remove any debris impeding the flow of air.
- Check whether air is reaching the treatment zone of your sewage treatment plant. This can be done by checking for a mild jacuzzi effect in the middle chamber of the plant.
- Make sure the media (golf ball-sized pieces of plastic) are freely circulating in the aeration chamber within the treatment plant. They must not be accumulating at one side of the chamber or the other.
- Ensure that the treatment plant is vented locally and that air is allowed unhindered access to the plant with no air admittance valves located on the vent.
- Be aware that when restarting your plant after prolonged periods of inactivity, smell and odour may be generated in the initial weeks while the biomass – 'good bacteria' – starts to grow again on the media.
- The use of carbon sources where applicable, especially when low loads are expected for some time, is also welcome. Typically, the carbon that can be used in such cases is based on sugars (i.e. molasses), whilst some of the plants have already got provision for one of the following: Methanol, Ethanol, Microglycerin, Acetic Acid and/or Sodium Acetate (a risk assessment may be required, a discharge of such high strength effluent to a surface water or groundwater could result in pollution and a breach of environmental permit conditions).
- Existing recirculation pipes from the final chamber to the primary chamber assist and speed up the sewage treatment process. However, a temporary submersible pump with a flow of less than 10 litres a minute can be fitted into the final humus chamber to further



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enhance the process. The pump must be 1m below the waterline and should discharge to the primary chamber with the hose being under the waterline to minimise the agitation of solids. Contact the manufacturer for recirculation rates and advice. After this period, the pump should be removed, cleaned and stored.

- If after following all the start-up steps, the plant and the discharge looks very poor, please contact a tanker service to empty the plant. It is wise to check that the contractor has suitable regard for regulatory compliance, Health and Safety, correct disposal of sludge and good working practices.

Advice for Rotating Biological Contactor(RBC)

- If the system has been taken off its service schedule this needs to be resumed.
- Check the motor is operational.
- Check the condition of the disc for grease.

ENVIRONMENTAL OR DISCHARGE PERMIT

If you have a problem returning your wastewater treatment plant back to normal operation following a period of no or low flows into it due to COVID-19 restrictions, or you become aware that your discharge is causing pollution, you should contact your regulator, either directly if you have a contact, or by contact details provided on the regulator`s website. The Environment Agency has provided general guidance on its regulatory response to coronavirus on [GOV.UK](https://www.gov.uk/government/publications/environment-agency-regulatory-response-to-coronavirus).

Below is the hyperlink which is attached to GOV.UK above.

<https://www.gov.uk/government/publications/environment-agency-regulatory-response-to-coronavirus/environment-agency-regulatory-response-to-coronavirus>