

**111845/301**

**Non-Technical Summary For NRW Permit For The Drawdown Of Oakenholt Reservoir**

**Introduction**

Oakenholt reservoir is privately owned and operated by Essity UK Ltd. The reservoir (water) is required for the operations of their facility which lies some 400m downstream. The water level/crest of the spill way is set at approximately 32.54mOD with the base of the dam at 18.00mOD.

The watercourse downstream of the reservoir is approximately 2.5m wide and 1.5m deep and enters a culvert of around the same dimensions before proceeding under the Essity facility. The exit watercourse is on the north side of Chester Road which outfalls to the River Dee.

Due to the local topography and groundwater the downstream watercourse has a small constant flow.

Currently there is ongoing works building a new spillway.

There is a 225mmØ drawdown (scour valve) located at the base of the dam which is used to lower the water level in the reservoir if required.

The owner currently has a permit EPR/AB1234CD which allows them to discharge water from the reservoir from the scour valve at a maximum of 266 cubic meters per day at a maximum rate of 222l/s.

**Permit requirements**

Currently the owners require a permit from Natural Resources Wales (NRW) every time they wish to operate the reservoir scour valve beyond that which they already have a permit for, however the permit they currently have is not sufficient to lower the water level by any significant amount.

Therefore the owners wish to acquire an Environmental Permit so that they can operate the scour valve at anytime for greater durations so significant decrease of the water level in the reservoir can be achieved.

The owners wish to get a permit for;

- A 6 hour Drawdown Test (with 14 day prior notice to NRW) as required to assist in Emergency Planning – justification to secure Public Safety.
- Drawdown up to 3 m below Spill Level to assist data gathering by Geophysical Surveys – justification to secure Public Safety.
- Drawdown to 1 m below Spill Level to assist any construction or any future maintenance works to the Spillways or any other part of the dam structure (with 14 day prior notice to NRW) – justification Contractor Safety during a project to secure Public Safety.
- Drawdown by Pump (not the Scour Valve) to 1 m below Spill Level to assist Hydraulic Testing during the construction of the Auxiliary Spillway (water will return to the Lead Brook Watercourse).
- An overarching Provision for drawdowns on future occasions with prior notification to NRW in an Emergency situation.
- Exercising of the scour valve for a maximum of 20 minutes on up to 12 occasions per annum as required by the Supervising Engineer or All Reservoir Panel Engineer appointed under the Reservoirs Act 1975 discharging 222 l/s for 20 minutes.
- An additional drawdown to 1 m below Spill Level for the anchoring of the Mussel Rope installation of an eel passage required by NRW to meet the requirements of Eel Regulations (England and Wales) 2009 as amended.

All drawdowns will be carried out by a suitably qualified person and may have to be done on more than one occasion and will be at a flow rate agreed by a reservoirs supervising engineer but no greater than 222l/s. This maximum flow rate is far less than the maximum capacity of the 2.5 x 1.5m culvert which stretches under the owners own facility.

**Summary**

The owner/operator of Oakenholt Reservoir Essity UK Ltd wishes to obtain an Environmental Permit so that they can drawdown the reservoir water level to a greater degree than they already have a permit for so that they are able to better maintain it, carry out maintenance works, test reservoir features (spillways etc) and carry out survey work to the dam and surroundings etc without the need to obtain an Environmental Permit for each task so to better stream line the process/works.