

Standard rules SR2010No2 - discharge to surface water: cooling water and heat exchangers

Introductory note

This introductory note does not form part of these standard rules

Note that heating discharges from single houses do not require a permit.

When referred to in an environmental permit, these rules will allow the operator to discharge up to 1000 cubic metres per day of water from a cooling circuit or heat exchanger to inland surface freshwaters, coastal waters or relevant territorial waters (as defined in Section 104 of the Water Resources Act 1991), provided that no polluting chemicals are present in the discharge, the temperature change between the inlet and outlet is less than eight degrees Celsius and the outlet temperature does not exceed twenty five degrees Celsius.

The discharge must be to the same water body from which the water was abstracted but not within 200 metres of another cooling or heating discharge.

The discharge must not be made into ponds or lakes or freshwater within 500 metres upstream from a designated shellfish water, European Site, Ramsar site, Site of Special Scientific Interest (SSSI), National Nature Reserve, Local Nature Reserve or any body of water identified as containing a Protected Species or within 100 metres from a Local Wildlife Site.

Furthermore, the discharge must not be made to a watercourse at a point where salmon spawn. For a site in tidal water, '500 metres upstream' means within 500 metres by the shortest distance over water in any direction from the nearest boundary of any of these sites. This restriction only applies to conservation sites that are water-based and linked to the receiving water downstream of the discharge point.

End of introductory note

Rules

1 – Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with rule 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in these standard rules shall have convenient access to a copy of them kept at or near the place where those duties are carried out.

2 – Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in table 2.1 below ("the activities").

Table 2.1 activities	
Description of activities	Limits of activities
The discharge to inland freshwaters, coastal waters or relevant territorial waters (as defined in Section 104 of the Water Resources Act 1991) of water after use in a cooling circuit or heat exchanger.	<ul style="list-style-type: none">• The discharge shall be returned to the same body of water from which it was abstracted• The discharge shall, as far as is reasonably practicable, be located to maximise rapid dilution in the receiving water.• The volume of the discharge shall not exceed 25% of the flow in the water body to which it is discharged at its 95%-exceeded flow during the period of use (adjusted for the seasonal operation of the discharge)

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green and the discharge shall be made at the point marked on the site plan attached to the permit.

2.2.2 The discharge shall not be made in ponds or lakes or freshwater within:

(a) 500 metres upstream from the nearest boundary of a designated shellfish water, European Site, Site of Special Scientific Interest (SSSI), Local Nature Reserve or any body of water identified as containing a Protected Species

(b) 100 metres from a Local Wildlife site. For a site in tidal water '500 metres upstream' shall mean within

500 metres by the shortest distance over water in any direction from the nearest boundary of the site. Only European Sites, Sites of Special Scientific Interest (SSSI), Local Nature Reserves and Local Wildlife sites that are water-based and linked to the receiving water downstream of the discharge point are included in this rule;

(c) 200 metres of another cooling or heating discharge.

2.2.3 The discharge shall not be made to a watercourse at a point where salmon spawn.

3 – Emissions and monitoring

3.1 Emissions to water

3.1.1 There shall be no point source emissions to water, except from the sources and emission points listed in table 3.1.

3.1.2 The limits given in table 3.1 shall not be exceeded.

Table 3.1 Point source emissions to water - emission limits and monitoring requirements			
Emission Point and Source	Parameter	Limit (including units)	Monitoring Frequency and Standard or Method
Discharge point from cooling circuit or heat exchanger	Temperature	The temperature difference between the water at the inlet and outlet shall be less than eight degrees Celsius.	See table 3.3
	Temperature	The temperature of the discharge at the outlet shall not exceed twenty five degrees Celsius	
	Volume	The volume of the discharge shall be less than 1000 cubic metres per day	

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this rule if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Monitoring

- 3.3.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake monitoring for the parameters, at the locations and at not less than the frequencies specified in table 3.3.
- 3.3.2 The operator shall maintain records of all monitoring required by these standard rules including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

Table 3.3 Activities - Monitoring requirements				
Monitoring point	Parameter	Monitoring frequency	Monitoring method	Other specifications
Inlet and Discharge point from cooling circuit or heat exchanger	Temperature	Continuous	Temperature probe	Operator shall have an audible alarm if the temperature exceeds the specified limits.

4 – Information

4.1 Records

4.1.1 All records required to be made by these standard rules shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible or are capable of retrieval; and
- (d) be retained, unless otherwise agreed by the Environment Agency, for at least 6 years from the date when the records were made.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by these standard rules unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by these standard rules to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.3 Notifications

4.3.1 The Environment Agency shall be notified without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques, accident or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
- (b) the breach of a limit specified in these standard rules; or
- (c) any significant adverse environmental effects.

4.3.2 Written confirmation of actual or potential pollution incidents and breaches of emission limits shall be submitted within 24 hours.

4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters except where such disclosure is prohibited by Stock Exchange rules:

- (a) Where the operator is a registered company:
 - (i) any change in the operator's trading name, registered name or registered office address; and
 - (ii) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- (b) Where the operator is a corporate body other than a registered company:
 - (i) any change in the operator's name or address; and
 - (ii) any steps taken with a view to the dissolution of the operator.

4.4 Interpretation

4.4.1 In these standard rules the expressions listed below shall have the meaning given.

4.4.2 In these standard rules references to reports and notifications mean written reports and notifications, except when reference is being made to notification being made "without delay", in

which case it may be provided by telephone.

“accident” means an accident that may result in pollution.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from emission points specified in these standard rules or from other localised or diffuse sources, which are not controlled by an emission limit.

“European Site” means Special Area of Conservation or candidate Special Area of Conservation or Special Protection Area or proposed Special Protection Area in England and Wales, within the meaning of Council Directives 79/409/EEC on the conservation of wild birds and 92/43/EEC on the conservation of natural habitats and of wild flora and fauna and the Conservation of Habitats and Species Regulations 2010. Internationally designated Ramsar sites are dealt with in the same way as European sites as a matter of government policy and for the purpose of these rules will be considered as a European Site.

“Local Nature Reserve” means an area designated by a local authority under the National Parks and Access to the Countryside Act 1949.

“Local Wildlife site” is a non-statutory designation by a local authority of sites with a high value for wildlife. They are designated according to selection criteria that follow Natural England or the Countryside Council for Wales guidelines

“pollution” means the direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land which may—

- be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems;
- result in damage to material property; or
- impair or interfere with amenities and other legitimate uses of the environment.

"Ponds and Lakes" for the purposes of these standard rules means those relevant lakes or ponds as defined by the Water Resources Act 1991, which would require an environmental permit but of a small size or have water which is not flowing so that the pond or lake would not provide adequate dilution or flow in the receiving watercourse for the discharge that would be covered by this permit. Note: Such proposals must be discussed with your local Environment Agency officer prior to making any permit application.

"Protected Species" means species of plants or animals that are protected under European legislation (the Habitats Directive) or by domestic legislation (Wildlife and Countryside Act, as amended by Countryside and Rights of Way Act) and that could be affected by the activities.

"Ramsar site" means a wetland of international importance, designated under the Ramsar Convention (an international agreement signed in Ramsar, Iran, in 1971). It is government policy to treat Ramsar sites the same as European sites.

"SSSI" means Site of Special Scientific Interest within the meaning of the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000).

"year" means calendar year commencing on 1st January.

"95%-exceeded flow" of a watercourse means the flow in the watercourse that is exceeded for 95% of the time. The Environment Agency will provide an estimate on request.

End of standard rules