



**The Water Environment (Controlled Activities) (Scotland)
Regulations 2011**

LICENCE APPLICANT GUIDANCE

FORM K – Deep Borehole Construction

Guidance structure:

1. Activities applied for
2. Details of deep boreholes

SECTION 1: ACTIVITIES APPLIED FOR

Please complete this section indicating how many deep boreholes you are applying to construct within each category. The CAR practical guide provides details of the level of authorisation required.

SECTION 2: DETAILS OF DEEP BOREHOLES**2.1 Deep Borehole No/Ref/Name**

Please provide a reference for each borehole e.g. BHA. This should correspond to a reference on the site map in 2.4 of form A.

2.2 Borehole maximum depth

Please specify the maximum borehole depth, where possible, please report to 2 decimal places expressed in metres. Please note that if you extend the depth or diameter of the borehole/well in the future then you will have to apply to vary your licence.

2.3 Borehole diameter

Please specify the maximum and minimum drilled borehole diameter in mm.

2.4 Purpose of borehole

Please specify the purpose of the borehole that is being drilled e.g. exploration drilling for the purpose of unconventional gas extraction.

2.5 National Grid Reference of borehole headworks

Please specify the 10 figure national grid reference of the borehole headworks

2.6 National Grid Reference of maximum lateral extent of the deep borehole.

If there are laterals planned please specify the national grid reference of maximum lateral extent of each.

2.7 Details of strata through which the borehole will be drilled

Please specify these details including depth and type of each strata through which the borehole will be drilled. We suggest this is done by reference to an appropriate section in a supporting document.

2.8 Drilling technique used

Specify the drilling technique(s) that is/are to be used. We suggest this is done by reference to an appropriate section in a supporting document.

2.9 Type of drilling fluid used

Please provide the chemical composition of drilling fluid used.

2.10 Casing types, diameters and depths

Specify the casing type(s), diameter(s) (in mm) and in the depth range over which it is present both in meters below ground level (mbgl) and meters above ordnance datum (mAOD). We suggest this is done by reference to an appropriate section (and diagram) in a supporting document.

2.11 Details of cementing the casing

Provide details such as type of cement used, method of use and depth over which cementing will take place.

2.12 Details of any nearby faults, mineworkings or other deep boreholes.

Please include the location and nature of these as well as stand off distances from these features.

2.13 Water feature survey

A water features survey of radius 1200m should be carried out. The survey should include abstractions, surface waters, springs and wetlands within 1200m of both the top and the bottom of the borehole. Sections 3 and Annex 2 of 'An applicants guide to water supply boreholes' provides further details. http://www.sepa.org.uk/water/water_regulation/guidance/abstraction_and_impoundment.aspx. Note that where horizontal drilling has taken place the water feature survey will need to take account of both the surface position and the position of the horizontal extent of the borehole.

2.14 Contingency plans for fluid and grout loss or artesian flow

Please provide details of an approach for minimising and dealing with drilling fluid loss, dealing with artesian flow and dealing with any variance from anticipated grout volumes. We suggest this is done by reference to an appropriate section in a supporting document.

2.15 Details of any appropriate baseline monitoring planned/undertaken

This could include baseline groundwater monitoring and/or baseline monitoring of other relevant receptors. We suggest this is done by reference to an appropriate section in a supporting document. Further details are provided in SEPA guidance WAT-RM-11 Licensing Groundwater Abstractions including Dewatering.

2.16 Details of monitoring and testing to confirm that the borehole has been adequately constructed

This could include integrity testing to confirm that the borehole has been adequately constructed. We suggest this is done by reference to an appropriate section in a supporting document. Further details are provided in SEPA guidance WAT-RM-11 Licensing Groundwater Abstractions including Dewatering.

2.17 Ongoing monitoring and maintenance planned to ensure the boreholes integrity is maintained

We suggest this is done by reference to an appropriate section in a supporting document. Further details are provided in SEPA guidance WAT-RM-11 Licensing Groundwater Abstractions including Dewatering.

2.18 Details of action that will be taken should any adverse environmental impact be detected

We suggest this is done by reference to an appropriate section in a supporting document.

2.19 Decommissioning plans (include temporary sealing and longer term decommissioning and monitoring).

We suggest this is done by reference to an appropriate section in a supporting document. Further details are provided in SEPA guidance WAT-RM-11 Licensing Groundwater Abstractions including Dewatering,

2.20 What date do you intend to start construction works?

Please detail the date on which you plan to start drilling.

2.21 Do you consider this activity would qualify as an environmental service?

Please identify if the activity qualifies as an "Environmental Service". You should have discussed this issue with your local SEPA office for more detailed advice, prior to making an application.

If appropriate, set out your claim on a separate sheet detailing why you consider an Environmental Service claim is appropriate and which activities are involved.