

## **Responses to SEPA's Consultation on Activities Associated with Geothermal Energy Extraction**

We have prepared draft guidance for applicants to help them understand the authorisation required by SEPA in relation to activities associated with geothermal energy extraction. The draft guidance was put out for consultation in August 2016 with a closing date of 12 September. This document summarises the main comments we received and our response to them.

We received responses from 3 external companies/bodies.

One respondent commented that there is a potential risk to the water environment from the re-injection of the water abstracted from mine workings because there is a chance that the water becomes oxidised prior to being discharged.

We agree that there is some risk of this occurring. General Binding Rule 17<sup>1</sup> already requires that the chemical composition of the abstracted water must not be altered prior to its return to the geological formation. However, we have also recommend to the Scottish Government that some changes are made to General Binding Rule 17 to avoid returning water abstracted from mine workings to underground strata not affected by mining as this could result in the transfer of polluted water into good quality groundwater resources. The Scottish Government are currently consulting on these changes<sup>2</sup>.

Another respondent commented that it is very important that account is taken of the possible impacts on any nearby public water supply abstraction boreholes.

We agree that this is an important consideration. As noted above General Binding Rule 17 already requires that the chemical composition of the abstracted water must not be altered prior to its return to the geological formation. We have also recommended to the Scottish Government that General Binding Rule 17 is altered so that geothermal activities do not take place close to other abstractions such that they could reduce the availability of their water supply. As mentioned above the Scottish Government are currently consulting on these changes.

One respondent commented that geothermal boreholes less than 500m in depth should be authorised at registration level rather than licence level. We think that a licence level of authorisation is appropriate for boreholes greater than 200m in depth because of the increased risk of deep saline groundwater contaminating shallower aquifer systems and surface ecosystems if not constructed, maintained and de-commissioned appropriately.

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<sup>1</sup> Of the Water Environment (Controlled Activities) (Scotland) Regulations 2011

<sup>2</sup> [Delivering Scotland's River Basin Management Plans: The Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2011 Proposed Amendments - Scottish Government - Citizen Space](#)

13 December 2016

We have also made some small changes to the document to clarify the approach as a result of more minor comments.