Errata 2011-12

SKB TR-11-01

Long-term safety for the final repository for spent nuclear fuel at Forsmark

Main report of the SR-Site project

Volume I

In the earlier distributed report, there are errors that have now been corrected. The corrected page 179 is enclosed. The changed text is marked with a vertical line in the page margin. An updated pdf version of the report, dated 2011-12, can be found at www.skb.se/publications.

Svensk Kärnbränslehantering AB
Swedish Nuclear Fuel
and Waste Management Co
Box 250, SE-101 24 Stockholm
Tel +46 8 459 84 00

The water saturation and swelling processes form part of the long-term evolution of the buffer and cannot be inspected at the initial state. Rather, based on analyses of these processes, design premises for the geometry and the density at the initial state can be stated and a reference design conforming to the design premises derived and specified.

5.5.2 Reference design and production procedures

Reference design

The reference design of the buffer is described by a set of *design parameters* for which nominal values and acceptable variations are given. The design parameters will be inspected in the production to confirm that the produced buffer at the initial state conforms to the reference design and to provide an estimate of the actual properties of the buffer at the initial state.

The reference design of the buffer consists of specifications of:

- The material composition.
- The material ready for compaction.
- The fabricated blocks and pellets.
- The installed buffer.

The reference buffer geometry is presented in Figure 5-11. The buffer consists of one solid bottom block, six ring-shaped blocks around the canister and three solid blocks on top of the canister. The buffer ends and the backfill commences at the top of the third block on top of the canister. The centre line of the buffer blocks coincides with the centre line of the deposition hole. The gap between the blocks and the rock surface of the deposition hole is filled with pellets. The thickness around the canister will, for the installed buffer, deviate from the nominal thickness, i.e. 35 cm. The installed buffer thickness will depend on the diameter of the deposition hole and its variation along the hole and on the position of the ring-shaped blocks within it. The buffer thickness will also be affected by the position of the canister within the ring shaped blocks and the diameter of the canister. The canister will be guided so that it is placed centred within the buffer ring.

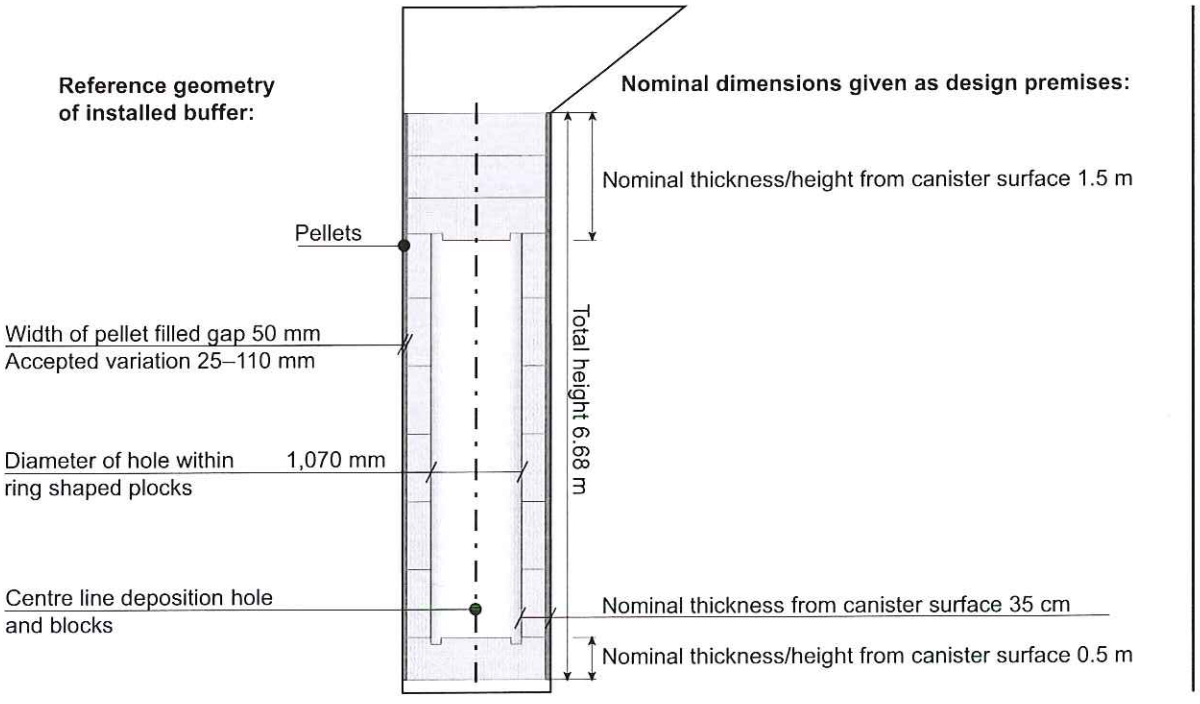

Figure 5-11. *Reference geometry of the installed buffer, see the* ***Buffer production report****, Figure 3-3.*