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Computer controlled Blanket Control Systems (BCS) **– 4th new generation BCS-VALUE micro C**

Abstract

Accurate determination of the blanket level is of great importance not only during the leaching and operation phase but also in association with MIT's of caverns.

Usually the blanket level is determined conventionally using gamma-gamma surveys or thermal-decay-time measurements at specific and discrete points in time. The time intervals between the measurements depend on the actual leaching situation when creating the cavern or on the operation circumstances of the storage cavern.

If, however, the blanket level is to be continuously monitored so as to enable as far as possible effective automatic control of the leaching process, this can be achieved only by installing a permanent measurement setup in the cavern. Blanket control systems can be used for such permanent control. These systems – installed on the casing string – are lowered down to the zone to be monitored when the casing is run into the cavern. Power is supplied to the system and the measured values transmitted to the surface unit via a survey cable, which is likewise fitted to the casing string. It is possible to connect up to the process control via various interfaces.

What specific system is actually applied depends on the blanket medium, the resolution required and the depth range to be monitored.

In the new fourth BCS generation the individual sensors are controlled by a microprocessor. This combines the accuracy of the first tool generation with the robustness of the third generation. The result is very robust survey equipment that is insensitive to dirt and can be applied at cavern head operating pressures of up to 100 bar, at temperatures of up to 70°C and at cable lengths of up to 2500 meters. If required it is even possible to combine several systems to extend the measuring range.

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