

## **The Horonobe Underground Research Laboratory Project -Outline and Progress of Development of Remote Monitoring System (ACROSS)-**

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As part of the research and development program on geological disposal of high-level radioactive waste (HLW), the Horonobe Underground Research Center, a division of the Japan Atomic Energy Agency (JAEA), is implementing the Horonobe Underground Research Laboratory Project.

JAEA has introduced to the Horonobe Under Ground Research Laboratory Project a remote monitoring system called seismic and electromagnetic ACROSS (Accurately Controlled Routinely Operated Signal System), which has been researched and developed in Tono Geoscience Center for 10 years for seismic research, to monitor changes of the geological environment by construction of the underground research laboratory.

We install the monitoring system before the shaft excavation and collect data before, during and after the excavation, so that we can assess the reliability of the system. The source and receivers of electromagnetic ACROSS were already installed and now we are carrying out the test of the system, while the installation of the source and receivers of seismic ACROSS was just finished in the end of last year.