

3.4-P1. FSUE VNIIA Activities Related to CTBT Technologies

FSUE “VNIIA” is the leading organization of the State Atomic Energy Corporation “Rosatom” regarding the aspects of the implementation of the CTBT. It currently carries out activities in the following directions: - Repair and modernization of technical equipment at International Monitoring System (IMS) stations located on the territory of the Russian Federation; -Scientific and methodological support of on-site inspection; - Identification of questionable events that might indicate a possible non-compliance with the CTBT. Some results will be discussed: -Upgrading of software for training systems with regard to methods and procedures for on-site inspection (OSI), making use of technologies such as the geographic information system ArcGIS, the WEB management system CartoPac, and interfacing with the CTBTO PrepCom information management systems FIMS and IIMS; -Development of an expert system model for OSI using the Exsys Corvid programming environment; -Designing a system “MIX” for registration of xenon isotopes as a modernization of the system “Arix” and improving the reliability of the system; -Co-processing of seismic and acoustic signals from repeating blasts in the North Korea area have been carried out by phase association. Estimates of the location of the events have been obtained using azimuth and apparent velocity.

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