

Central Analytical Laboratory – Testing Laboratory

The Central Analytical Laboratory - Testing Laboratory (CAL – ZL) is accredited to determine and to monitor radionuclides that are significant for safe operation of nuclear installations, to determine and to monitor radioactive, toxic and other elements (isotopes) important for environment protection, as well as samples of natural materials, and to analyze samples of gasses and biomass

Department of Measuring and Laboratories includes:

- CAL-ZL Testing Laboratory No. 1093.4
- Safeguards laboratory as a part of the IAEA laboratory network
- Laboratory for characterization of radioactive wastes
- Dosimetry services

CAL-ZL provided services:

- Determination of volume activity of radioactive elements (incl. ^3H and ^{14}C) in exhalations, radioactive concentrates, underground water and other materials;
- Determination of radionuclides and transuranium elements, heavy & toxic elements in water, soils and sediments
- Determination of ^{210}Pb , ^{210}Po , ^{228}Th , ^{230}Th , ^{231}Pa , ^{234}Pa and ^{226}Ra in soils, water and sediments at sites affected by mining of uranium ores;
- Determination of micro-concentrations of transuranium elements, heavy & toxic elements (e.g. determination of the profile of impurities in metals and in other industrial materials);



ÚJV Řež, a. s.

Hlavní 130, 250 68 Husinec - Řež, phone: +420 266 173 441, e-mail: sales@ujv.cz

Measurement & Laboratory

phone: +420 266 172 647, e-mail: waste@ujv.cz

www.ujv.cz



CAL-ZL provided services

- Destructive analyses of seized nuclear materials in order to identify their origin – determination of their age, microscopic admixtures and composition;
- Destructive analyses of nuclear fuel based on uranium and plutonium and samples of nuclear materials;
- Monitoring of radionuclides in environmental samples within the Radiation Monitoring System of the Czech Republic
- Determination of radioactive, toxic or any other elements in gasses and biomass;
- Measuring of aerosol and iodine filters efficiency for ventilation systems;
- Monitoring of the processes of samples thermal behaviour using methods of diffusion structural analysis;
- Monitoring of surface changes observed in materials during their heat-up from 20 °C to 1200 °C using the method of diffusion structural analysis;
- Statistical evaluation of big volumes of data.

Other provided services:

- Measuring of ionizing radiation values;
- Dosimetry services;
- Characterization of radioactive wastes;
- Seizure of ionizing radiation sources;
- Supervision of radiation protection at workplaces up to the category IV;
- Escort of transports of radioactive substances and nuclear materials;
- Emergency service in case of an accident during transport of hazardous materials under ADR group 7.



ÚJV Řež, a. s.

Hlavní 130, 250 68 Husinec - Řež, phone: +420 266 173 441, e-mail: sales@ujv.cz

Measurement & Laboratory

phone: +420 266 172 647, e-mail: waste@ujv.cz

www.ujv.cz

