

# CAMPOVERDE

Radioactive material management:  
products, instruments, waste and logistics

Radioactive Matter



Environment & Safety



Management Training



Scientific Research



Nuclear Medicine



## ABOUT US

Environment care, safety and health have always been Campoverde objectives. Since it was established, Campoverde has been working in business areas where technical competences and compliance with strict rules are key factors.

Campoverde offers a full, decisive and final **radioactive material management**, covering the entire product life, from product supply to waste disposal.

## RADIOACTIVE MATERIAL MANAGEMENT

Campoverde provides a radioactive material management service, whether it is a source, waste or NORM/TENORM material.

**Collection, packaging, transport, analysis, handling, making it safe, radiological characterization and disposal** are some of the services provided by Campoverde to offer customized and final solutions to problems in medical, Industrial and scientific areas. Each solution is the result of a long-term experience and high quality reference standards.



All the operations are carried out in compliance with the current regulations and are duly certified in order to relieve the customer of any civil and criminal liability about waste delivered.

## NORM AND TENORM

Campoverde manages NORM (Naturally Occurring Radioactive Material) and TENORM (Technologically Enhanced Naturally Occurring Radioactive Material) waste through the following process:

1. **Remediation**
2. **Radiometric characterization:** EN ISO 17025:2005 standard for gamma spectrometry
3. **Dosimetric evaluation** at all stages of the management
4. **Release test**
5. **Transport**
6. **Pre-treatment:** preparation of a stabilized and/or flammable mass according to specific procedures

7. **Disposal/incineration** in national plants according to the Radiation Protection Expert specifications.

## RADIOLOGICAL AND ENVIRONMENTAL MONITORING AND CHARACTERIZATION

Thanks to experienced and qualified technicians, and state-of-the-art instruments and procedures, in 2018 Campoverde Laboratory has reached an important goal as the Accreditation in compliance with **ISO/IEC 17025:2005** standard.

### Schedule of accreditation

#### **WATER**

- EN ISO 9698:2015. Water quality - Determination of tritium activity concentration - Liquid scintillation counting method (ISO 9698:2010)
- ISO 13164-4:2015. Water quality-Radon-222 - Part 4: Test method using two-phase liquid scintillation counting

#### **FOOD SAMPLES, ENVIRONMENTAL SAMPLES AND SIMILAR MATRICES**

- UNI 11665:2017. Determination of gamma emitting radionuclides by high-resolution gamma spectrometry



Campoverde offers the following radiological and environmental monitoring and characterization services in its own lab or directly on its customer sites:

- Radiometric monitoring
- Simulations with control codes
- Sample planning, characterization and release
- Sampling and sample pre-treatment
- Gamma spectrometry by HpGe on site and in the lab
- Low background liquid scintillation
- Alpha spectrometry
- Radiochemical analysis
- Release analysis
- NORM measurements and analysis



## OUR AUTHORIZATIONS

Campoverde holds authorizations issued by central and local competent authorities. These authorizations allow Campoverde to execute every operation in the different areas of interest through its own resources and staff. In particular:

- radioactive waste collection authorization
- interministerial authorization for the radioactive materials route transport
- "B Category" authorization for the detention of sealed and not sealed radioactive sources
- authorization for the handling and disposal of radioactive materials and waste and for radioactive materials trading
- registration to "Albo Nazionale Gestori Ambientali" Lombardy regional section
- Material Balance Area (MBA) code for special nuclear fuel and semi-processed materials (raw and mineral) storage.

## RADIOACTIVE SOURCES AND SPECIAL INSTRUMENTS

Campoverde offers a wide range of **Industrial, Calibration** and for **Nuclear Medicine** sources produced by **Eckert & Ziegler**, one of the main radioactive isotope manufacturer for medical, scientific and industrial use.



Thanks to the **exclusive distribution in Italy of the Eckert & Ziegler Isotope Products**, the sources portfolio includes a wide range of radionuclides and size, for industrial and research applications.

Furthermore Campoverde provides the Radhound series of **radiation detectors** by Southern Scientific, including a wide variety of probes: Geiger, scintillation, alpha and beta contamination.



Campoverde is the partner of some great international companies. The partnerships with Eckert & Ziegler, PermaFix Environmental Services, US Ecology, Augean and ACB contributed to the development of the skills required to manage every kind of radioactive and nuclear waste.



**Eckert & Ziegler** is a pioneer in the isotopes production and radioactive waste disposal.



**Permafix** is the most important US company for the decommission and the treatment of every kind of radioactive waste, including those coming from nuclear facilities.



**US Ecology** is a company leader in NORM (Naturally Occurring Radioactive Materials) and TENORM (Technologically Enhances Naturally Occurring Radioactive Materials) disposal.



**Augean** is a leading company in the field of modern and sustainable solutions for the hazardous waste treatment in the **United Kingdom**.



**ACB** is a British company leading in the radioactive material management, thanks to efficient disposal and recycling processes.

If you wish to receive further information about Radioactive Area activity please send an e-mail to [ambiente@campoverde-group.com](mailto:ambiente@campoverde-group.com)

## OPERATIONAL SERVICES FOR RISK MANAGEMENT



Our services quality is certified by:



Certified company ISO 9001:2015



Certified company ISO 14001:2015



**LAB N° 1687**

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements



**Bentley SOA** – Society of Attesting Offices. Campoverde is qualified for the public works. Our service is carried out in conjunction with planned interventions or single specific operations all over Italy, including the islands.



**ENEA.** Since 1998 Campoverde works in the "ENEA Integrated Service for the management of radioactive waste coming from health, industry and scientific research areas"