Consulting Services

Introduction

In addition to radiometric instrument design and supply, radioactive waste measurement services and technical support to the nuclear industry, ANTECH also provides consulting services to the nuclear industry.

ANTECH staff has experience across a wide range of activities and processes in the nuclear industry.

The core of ANTECH's expertise is based on the measurement of radioactivity in the fields of radioactive waste measurement, nuclear safeguards and radiation detection in the environment. This knowledge also extends to associated fields, which include radiation modelling, radioactive material handling, and measurement compliance and validation issues.

Areas of consulting expertise

1	The measurement of radioactivity in materials ranging from contact handled (CH) with very low levels of activity to remote handled (RH) with very high levels of activity	
2	Nuclear Safeguards Measurements	
3	Measurements of Radioactive Waste, including:	
	a)	Very Low Level Waste (VLLW)
	b)	Low Level Waste (LLW)
	c)	Intermediate Level Waste (ILW)
	d)	Transuranic Waste (TRU)
	e)	High Activity Remote Handled (RH) Waste
4	Radiation detection and radionuclide identification	
5	Radiometric instrument design for Specific Measurement Applications	
6	Radiometric instrument testing and calibration including measurement verification and validation	
7	Radioactive source, detector and radiation distribution modelling (especially using the Monte Carlo MCNP code for gamma ray and neutron modelling)	
8	Radioactive waste program management including remote handled (RH) Waste and waste program development	
9	Radioactive material handling associated with safeguards, waste and inventory measurements and source handling and installation • Mechanical handling systems within the expertise of ANTECH include belt and roller conveyors, gantry robot cranes, container rotation and lifting systems and loading/unloading systems (including cantilever beams and rail systems).	
10	Advice on radioactive waste categories, regulatory issues and radiation safety	
11	Training in radioactive source handling and measurement instrument operation	
12	Analysis of measurement data, including error assessment and error propagation	