RCCL

Radiological Control of Container Load



KEY FEATURES

- Container monitoring not requiring intervention by control personnel
- Real-time follow-up of the changes in the count rate during measurement
- Industrial equipment designed to be used under all conditions
- Specially designed for the radiation monitoring of waste from health-care activities at the exit of hospitals or at the entrance of waste disposal sites

SYSTEM DESCRIPTION

The R.C.C.L system is designed for the radiation contamination monitoring of container or package (R.C.P.L) loads or pedestrian.
There is no need to stop the containers in front of the detectors (dynamic monitoring).

The system is designed to perform dynamic measurements on waste with no waiting time required. It is specially designed to optimize the radiation monitoring of all types of containers while taking into account changes in ambient conditions.
The principle of operation is based on an ANDREA processing unit connected to one or two DSPxxx – 400 detectors combined to a presence detection system for the switching of the device to the measuring mode.



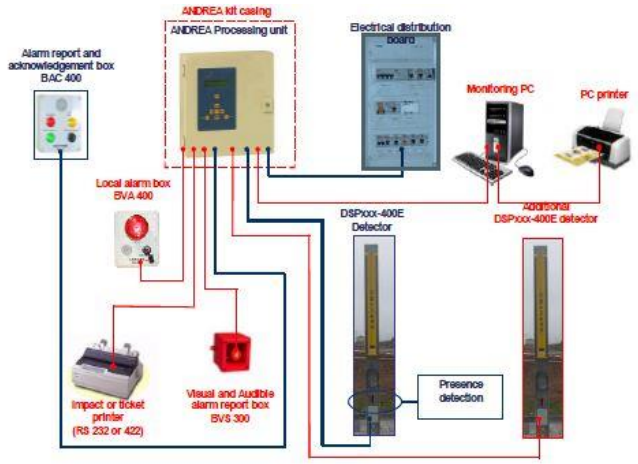
Various options are available for a better exploitation of the system, particularly alarm report boxes.
After each measurement, a report containing the main information (date and time, background, count rate, alarm triggering) can be printed via an impact or a ticket printer.

The ANDREA processing unit can be optionally connected to a PC-based monitoring software. All the information contained within the processing unit (backgrounds, measurements, states etc.) are thereby available via this electronic link. In case of disruption of the electronic link, the monitoring system remains operational.

CHARACTERISTICS

The different models available are described in the following table:

Model	Plastic scintillator		Sensitivity at 1m using ^{137}Cs (pulses/s/kBq)
	Volume	Size	
DSP 001	2.5 liters	50 cm x 10 cm x 5 cm	> 2.2
DSP 002	5 liters	100 cm x 10 cm x 5 cm	> 3.6



A presence detection system is essential for the proper functioning of the system. Presence detection can be provided by:

- A REM 400 presence detector (included)

- BAC 400 box (included)

- alarm and acknowledgement system consisting of a buzzer, an acknowledgement button and three LED indicators (green: normal operation / yellow: technical failure – error / red: nuclear alarm)
- usually placed in the control room or operating site

OPTIONS

- ANDREA kit software (Ethernet or USB): to ensure measurements chain of custody
- Supports for fixing detectors
- BVS 300 box

- visual and audible alarm with xenon flash and strong audible alarm
- usually placed outside on one of the detector supports