

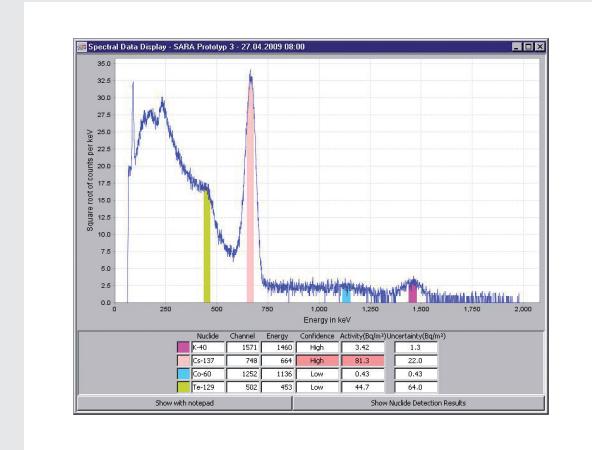
# SARA ENVINET

FOR DESALINATION PLANTS

## SARA – Radiation Monitoring

SARA helps to make water production at desalination plants safer with regard to radiation contamination. It monitors the gamma radiation in water continuously and provides around-the-clock information on the quality of the raw material sea water. SARA is designed for permanent use in sea water where it measures and analyses the water on a long-term basis.

# SPECTROSCOPIC DETECTION OF GAMMA RADIATION AT DESALINATION PLANTS



Data analysis in NMC

## SARA MARKS THE BEGINNING OF A NEW ERA IN RADIATION MONITORING

With its completely innovative product series, ENVINET provides solutions for the spectroscopic online monitoring of the ambient gamma radiation in water that, for the first time, meet all the requirements for unrestricted automatic remote monitoring under the harsh operating conditions of continual use in sea water or fresh water.

## DESALINATION – A MAJOR SOURCE OF DRINKING WATER

Desalination is defined as the extraction of fresh water from sea or brackish waters. The interest in and importance of water desalination all over the world is immense. Especially in the Gulf Region, in some countries up to 90 % – or even more – of all drinking water is produced from sea water by desalination. For countries that extract their drinking water from the sea via desalination, contamination with radioactivity is a serious hazard.

## HOW CAN DESALINATION PLANTS BE PROTECTED FROM RADIOACTIVE CONTAMINATION?

For risk prevention and protection, it is essential to monitor continuously and efficiently the quality of the water by which the desalination plants are fed. This is the precondition for effective measures to prevent contamination of drinking water.

Fast and reliable monitoring requires automated online measuring systems. ENVINET GmbH specializes in the continuous and automatic monitoring of radioactivity in the environment in general and water in particular.

**ENVINET** offers complete turnkey solutions for online monitoring of water in desalination plants:

- Water probes and water analysis stations
- Wired and wireless data communication technology (radio, GPRS, satellite, etc.)
- Central monitoring and control systems.

The water measurement probe series SARA are specifically designed for permanent use in sea water and approved for extreme environmental operating conditions. They are type tested for a water depth of 500 m.

SARA records the entire energy spectrum of gamma radiation continuously, analyzes it online and thus permits the monitoring of individual radionuclides that exceed alarm thresholds. This allows rapid detection of minor radioactive contamination.

The probes are either installed offshore at buoys or in water-feeding channels at the desalination plants. To increase reliability, each detection channel can be designed redundant and equipped with two or three detection probes.

## FEATURES

SARA's most important feature is its ability to detect extremely low levels of artificial radiation in the environment and in water rapidly and automatically. For further details, please request the data sheet.

## NMC – UNIVERSAL SOLUTION FOR ONLINE MONITORING

The control and technical supervision of the entire system is carried out centrally by the software NMC. Other key features include the analysis and interpretation of data.

NMC generates alerts to provide information immediately in the event high levels of radioactivity are detected. Reports can be automatically generated and distributed. All data and information is archived in a database, which allows long-term analysis of the measurements.

To exchange information or for data forwarding to a higher level control center, NMC has a variety of selectable data interfaces and formats.

## BENEFITS

- Constant information on water quality
- Early detection of extremely low levels of artificial radiation
- Designed for use in extreme weather conditions and sea water
- Low set-up costs
- Low operating costs
- Easy installation
- High level of automation
- Low level of maintenance required
- Remote configuration and monitoring

## ABOUT ENVINET

ENVINET GmbH is a German company based in Munich. For more than 30 years, our customers have been relying on our solutions when monitoring environmental parameters. With over 4,500 online detectors in operation, we are the leading manufacturer of networks to monitor environmental radiation. ENVINET's products and solutions reflect the experience and innovative capability of our team, thus guaranteeing top quality, extremely reliable yet, at the same time, highly functional solutions.



Countries where ENVINET products are installed



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