HydroGroup

Edition 22/2014

Water News

INFO

EU Biocide Regulation and water conditioning

State of implementation and effects of the regulation on the operation of disinfection systems in water treatment works and swimming pools.

Completely unnoticed and without any approach to the relevant professional associations, the new EU Regulation no. 528/2012 was adopted on 22nd May 2012 by the EU Parliament. The regulation, which came into force on 1st September 2013, supersedes the previous EU Directive (Biocides Directive) 98/8/EC.

The new regulation regulates throughout Europe the marketing and use of biocidical products which include not only wood preservatives, disinfectants and rat poison, for example, but also water disinfection agents.

The aim of the regulation, which covers about 120 pages, is to improve the freedom of movement of biocidical products within the European Union while at the same time ensuring a high level of protection for human and animal health and for the environment. To this end a comprehensive approvals procedure has been developed which aims at drawing up a Union list of active agents approved for use in biocidical products and whose use is exclusively permitted.

Biocidical products are defined as follows in Article 3 of the Regulation:

„- any substance or mixture, in the form in which it supplied to the user, consisting of, containing or generating one or more active substances, with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action,"

„- any substance or any mixture, generated from substances or mixtures which do not themselves fall under the first indent, to be used with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action."

In contrast to the formulation in the old EU directive, the additional formulation in the second indent in the new regulation now covers all of those products which are produced in situ - in other words, at the same location as where they are used. These include, for example, ozone generated from atmospheric oxygen or chlorine obtained from common salt by electrolysis - both of these are important substances in the field of water conditioning, having been used successfully for more than a hundred years for this.

According to the new definition biocidical agents produced on the spot are now regarded as biocidical products which are not permitted to be used unless the active substance - in other words, ozone, for instance - has been included on the positive list and has been approved as a biocidical product.

According to the current legal situation all active substances must be registered, approved and included on the list and finally notification must be given of the operation of the installations. A period of transition for old active substances applies until 1st September 2017. It remains as yet unclear who can be responsible for picking up the high costs of the complex approvals procedure for in situ products (period of validity is 10 years, after which an extension must be applied for). According to current estimates these costs will run to as much as 2 million Euro for creating the substance dossier required and for the approvals procedure.

These costs can and will be passed on to the customer by the manufacturers in the case of marketable products. This will either lead to corresponding cost increases or to many agents simply disappearing from the market due to it not being possible to pass the costs on. In the case of in situ products a procedure for passing on costs is not feasible in practice since of course nothing is actually being traded. At this point disillusionment has set in even in those companies manufacturing ozone generators, who have got together and formed the Ozone Registration Group for the purpose of registering ozone. In theory, with so-called letters of access users could purchase the right to be permitted to use ozone, for example, in water treatment in accordance with the Biocides Regulation. A user within the meaning of the legislation is anyone operating an ozone installation, and they would have to expect enormous additional costs, not only once but repeatedly every 10 years.

The question has also remained unanswered whether the legislator, i.e. the EU in this case, is permitted to act in this way. It also needs to be mentioned that the Federal Institute for Occupational Safety and Health (BAuA) which is responsible for implementation in Germany has so far shown itself to be uncompromising in this question and holds firmly to the full implementation of the regulation. The fact is, this regulation strongly favours the big chemical companies and small enterprises in this segment have hardly any chance in the future. As regards in situ products we are working together with the professional associations to find an acceptable and feasible solution. If necessary, even we shall ourselves have to become active.

EDITORIAL

Unnecessary nonsense!

Not without good reason have ozone and chlorine been used extremely successfully for over 100 years in the field of water treatment and continue to be so used. The two substances are known to be outstanding disinfectants and even (in the case of ozone) as oxidizing agents. Hardly any other active agent has been so extensively investigated and observed over such a long period as ozone and chlorine. They are also the substances which make possible the high standard of drinking water quality and even recreational water in Germany. At least until now!

This is as good as unknown in the EU - or at least this is what the adopted EU Biocides Directive indicates. However, even the German BAuA does not come across as having any special expertise in this question but more as a stickler for principles. That's what the law says and that's how it must be implemented - never mind how much it costs, or who pays or, above all, how it can be put into practice and who benefits. This directive will not benefit anyone in this field!

Quite the opposite: **In Germany alone around 2 million installation operators would be affected by the EU directive, namely water suppliers, industrial companies and swimming pool operators - but also private persons who are, for example, running a decentralized water softening installation with electrolytic disinfection.**

The aim of opening up a market will also be seriously undermined by this regulation. The opposite is the case: very many excellent products will disappear from the market. And that will happen at a time when many viruses and bacteria have already built up their resistances.

What is horrifying though is that both the people and companies are allowing such a law to be imposed on them. We on the other hand will defend ourselves against this nonsense with all the means at our command. This is just the beginning!

Manfred Brugger

IMPORTANT DATES

24th - 27th March 2015
WASSER BERLIN INTERNATIONAL Trade Fair
Berlin trade fair grounds

22nd - 23rd April 2015
3rd South and East Bavaria Water Conference,
Sparkassen-Arena Landshut,
conference and exhibition

23rd - 24th September 2015
2nd Westphalian Drinking Water Conference,
Heinz Nixdorf MuseumsForum Paderborn,
conference and exhibition

Demineralization system for paper factory

For a paper factory in Schleswig-Holstein the Gütersloh company RWT GmbH is supplying a new demineralization system for producing boiler feed water.

Pre-treatment

With its entirely two-line design this installation has, since its successful start-up, been able to deliver up to 15 m³ demineralized water per hour per line.

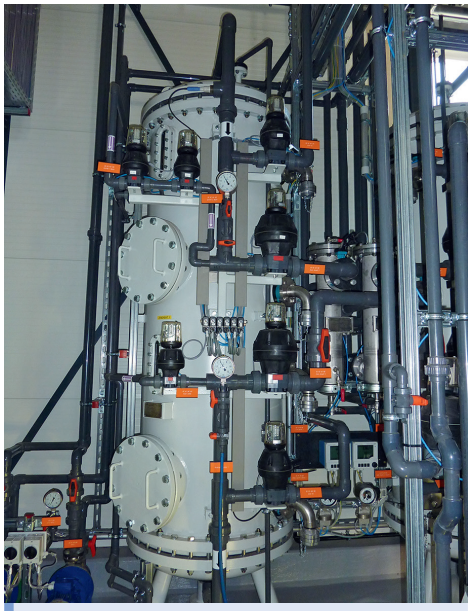
The untreated water is well water containing iron and manganese and it is prepared for deferrization and demanganization by a preparatory stage involving the addition of metered quantities of flocculants and gravel filtration.

The downstream demineralization system consists of one cation and anion exchanger in each case of the mixed fluidized bed type and between them a CO_2 trickle bed for deacidification and a downstream fine-cleaning stage using mixed-bed exchangers. In this way the installation guarantees compliance with the VGB guidelines for ‚Systems for water desalination with ion exchangers'.

RWT GmbH further supplies the necessary regeneration equipment, power units, pipework, fittings, measurement equipment and also the switching and control technology based on Siemens S-7, including programming for control, visualization and bus connection to instrumentation and control systems. In this way the fully automatic operation of the installations is secured.

The scope of the contract included not only design, manufacture and delivery but also mechanical and electrical assembly, commissioning and full documentation for the installation.

With the exchanger vessels built in the Gütersloh plant - ‚made in Germany' - RWT GmbH is providing a good example of the high quality to which we are accustomed with HydroGroup products. Demineralization systems delivering up to several hundred m³/h can be supplied.



Ion exchange column

KNOWLEDGE

Demineralization

With demineralization, all of the salts dissolved in the water are removed by a combination of acidic cation exchangers and basic anion exchangers.

In the first desalination stage – the cation exchanger – all cations are exchanged for hydrogen ions. The concentration of anions is not changed. The carbonic acid created here is removed by a trickle unit. Regeneration of cation exchangers primarily occurs with hydrochloric acid.

In the second desalination stage the acidic effluent from the cation exchanger is routed through an anion exchanger. The result is demineralized water.

These exchangers are regenerated using strong bases, such as sodium hydroxide.

PERSONAL NEWS

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LEGAL INFORMATION

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