

Environmental impact of seawater use in industry discussed at conference

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DOHA: The environmental impact of the use of seawater in industrial cooling as well as discharges from desalination and power plants to the Gulf waters were discussed at an international conference held here yesterday.



Participants at the 2nd International Cooling Seawater Conference held at the InterContinental Hotel in Doha yesterday. □(AHMED JOUDHA)

The second international seawater conference, held under the patronage of the Ministry of Environment featured presentations by experts from Qatar, the UK, US, the Netherlands, India, World Bank and several GCC countries.

Giving a presentation on discharges from desalination and power plants, Thomas Hoepner said, there is an urgent need for a standard of ecological impact assessments and a supra-national coordination of the water and electricity grids, which are currently lacking in the region.

The total loads of the main chemical discharges in to the sea from desalination plants in the region per day amount to 66,000kg of antiscalants, 24,000 kg of chlorine, and 300kg of copper.

"The localization of desalination and power plants so far seems be directed by the locations of the demand for energy and desalted water and not by the selection of minimal marine ecological damages," said the speaker.

A joint presentation by experts from Qatar University and the Texas A&M University discussed the problem of residual chlorine in seawater cooling. In Qatar, huge volumes of sea water are used for cooling every day and discharged back to the Arabian Gulf. Chlorine is added to the seawater to control biofouling of the cooling system.

The added chlorine reacts with bromide and other compounds in the water to produce a wide range of chemical oxidants. Some of these oxidants remain in the cooling water after it discharged and they pose a major environmental burden.

New regulations have recently been established in Qatar which specify that the concentration of residual chlorine in the discharged cooling water should not exceed 0.05 mg/L. Industries in Qatar find it difficult to meet these new standards.

Therefore, both regulators and industries in Qatar are looking for ways to minimize environmental pollution while achieving high performance of the cooling system with reasonable cost.