

INTRODUCTION

At present, the combined production capacity of all seawater desalination plants worldwide is 36 million cubic meters per day. It is expected that this capacity will double in the next decade. 61% of the water is produced by thermal processes, mainly in the Gulf region, while 34% is produced by reverse osmosis (RO), which is the first choice in many countries that start to use desalination. Worldwide, RO desalination capacity for both sea and brackish water represents 60% of the total desalination capacity. Besides materials, higher salinity and temperature, all desalination plants use chemicals. Due to their large volume of brine discharges through many types of outfall systems into the sea, from simple surface discharge through an open-channel to modern submerged multipoint outfall systems, desalination plants were included in the list of major sources of land-based marine pollution in the Gulf by the United Nations Environment Programme. Other main environmental concerns are the intakes, which may cause impingement and entrainment of marine organisms, and energy use, causing air pollution and greenhouse gas emissions.

The need for resource-saving, low-impact “green” desalination technologies is evident as the use of desalination accelerates in many parts of the world. The concept of “best available techniques” would be required at the identification of state of the art technologies, processes, or methods of operation, policies and programmes which indicate the practical suitability for preventing or reducing pollution of the atmosphere, sea and land as well as the quantities of waste and for reducing the impact on the environment as a whole. The design and siting of submarine intakes and outfalls are a complex task that relies on many disciplines including Oceanography, Civil and Environmental Engineering, Marine Biology, Construction, Economics, and Public Relations.

OBJECTIVES

- To bring together scientists, professionals and regulators to communicate and exchange knowledge on environmental issues and management options associated with the desalination industry
- To develop and provide a platform to discuss future research for environmental management in the desalination industry and marine intake and outfall systems and their designs

CONFERENCE THEMES

- Desalination Brine and Industrial Discharges
- Resource Recovery and Carbon Emission from Desalination Plants
- Nanotechnology and Desalination
- Environmental Costs of Desalination: The Economic Aspects
- Desalination and Renewable Energy Source
- Harmful Algal Bloom and Threat to Seawater Desalination Plants
- Advances in Desalination Technology to Mitigate Environmental Impacts
- Environmental Impact Assessment for Desalination Plants
- Intake and Outfall Systems for Cooling Water and Wastewater Treatment Plants
- Experimental and Computational Techniques
- Regulatory Issues of Desalination Brine and Industrial Discharges

CALL FOR PAPERS

Abstracts (at most two for a participant) should contain the title of the contribution, the name and affiliation of the authors, and the address for correspondence, including phone number and e-mail address. The abstract should not exceed 500 words. Please use font size 12” of Times New Roman, 1.5 line spacing. The subject of the presentation should be focused on the topics of the conference. The Organising Committee will communicate to the authors the provisional acceptance of their contributions to the conference. All selected authors will be informed in which session they will be presenting their oral paper.

REGISTRATION FEE

The registration fee is USD 200 (with a 25% discount for IAHR and IWA members) which covers the full conference package with conference proceedings, admission to all the technical sessions, opening and closing ceremonies, daily lunch and refreshments, airport transfer and certificate of attendance. The registration fee does not include accommodation during the conference period.

TRAVEL GRANTS

A limited number of travel grants will be available to support specific participants.

IMPORTANT DATES

Deadline for abstract submission	OCT 15, 2013
Notification of acceptance	NOV 15, 2013
Deadline for full paper submission	JAN 15, 2014
Deadline for registration	FEB 15, 2014

Conference dates APRIL 13–16, 2014



KEYNOTE SPEAKERS

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