



## **BAT as a tool for reducing seawater pollution effects: the Italian perspective**

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Pollution in coastal and marine environments is becoming an increasingly serious threat. A variety of sources and activities including sewage and industrial effluents, and oil (and plastics) pollution are considered as potential stressors. Toxic pollutants, including pesticides, persistent industrial organic chemicals and metals, are widespread contaminants of the marine environment. The industrial discharge carries various types of contaminants to the freshwater (river, lake and groundwater) and seawater. The contaminant from the discharge is directly related to the nature of the industry. Some of them are accumulated, interacted and settled with the living organism, plant and sediment and finally reach the coastal and ocean.

The Industrial Emissions Directive 2010/75/EU (IED) is the main EU instrument regulating pollutant emissions from industrial installations. It aims to achieve a high level of protection of human health and the environment by reducing harmful industrial emissions in particular through better application of Best Available Techniques (BAT). In Italy, around 150 installations, under taking the industrial activities listed in Annex I of the IED, are required to operate in accordance with a permit that contains conditions set in accordance with the principles and provisions of the IED.

This paper describes new issues and opportunities in terms of pollution prevention, abatement and reduction from industrial activities by the adoption of Best Available Techniques (BAT) for wastewater discharge as issued by European Commission, Joint Research Centre (EU, JRC) of Seville.

BAT application in fact are available in order to achieve a high level of protection of the environmental matrices, such as reducing industrial pollutant emissions, in terms of reduction of the pollutant concentrations at the sources of emission and by means of advanced monitoring and control activities.

In this paper a synthesis of environmental protection activities in this field, in terms of efficiency and effectiveness of environmental controls, monitoring and inspections, performed in Italy by the National Control Authority (ISPRA), shows that BAT application - now currently available – supplies new pollutant emission limit values, reachable through new appropriate technologies for pollution abatement in wastewater discharges corresponding to a better environmental protection in a more effective way.