

Abstract

Reverse Osmosis (often referred to RO) is an excellent way to remove certain unwanted contaminants from water.

Reverse Osmosis techniques are applied in the works of water desalination usually for the production of water relatively free of salts for industrial purposes, especially in establishments causing thermal pollution, as in Al-daura refinery where the data of desalination unit was employed and completed the past year by the researcher in person for the purposes of evaluating the unit performance for a period of (7) years working at the mentioned establishment. The last division of tests was carried out by the researcher and lasted for eight months, from 1/4/2005 to 1/12/2005. Study of work has been classified as follows:

- A- Area No. I: This was performed between (1/12/1998) to (1/12/2002), where the removal efficiency of the unit was good and ranged between (91% - 98%), which is within the standard specifications, being designed by Vivendi Company for the desalination works by Reverse Osmosis method, and its value must be (92.8%).
- B- Area No. II: This was carried out during the period from (1/12/2002) to (1/12/2005), where the removal efficiency of the unit was not good and ranged between (78% - 90%), which is not within the standard specifications, being designed by the manufacturing Company, because of the unavailability of elementary materials for desalination and maintenance works or badness of pretreatment system.