# Establishment of a Company for the Manufacture and Sale of Reverse Osmosis Membrane Elements for Seawater Desalination *First Company of Its Type in Saudi Arabia*

Toyobo has concluded an agreement with the Saudi Arabian company Arabian Company for Water & Power Development (ACWA Power Development, hereafter "APD") and ITOCHU Corporation ("ITOCHU") to establish a joint venture in Saudi Arabia for the manufacture and sale of reverse osmosis membrane elements for seawater desalination. The signing ceremony for the company was held in Saudi Arabia on February 16.

The joint venture firm will be established in March 2010, with production planned to commence around March 2011.

### 1. Overview of the Joint Venture (Tentative)

| Company Name:         | Arabian Japanese Membrane Company, LLC                           |
|-----------------------|--|
| Established:          | March 2010   |
| Capitalization:       | Initially approximately 7 million saudi riyals (Total investment |
|                       | approximately 26 million saudi riyals)                           |
| Investment Ratio:     | APD 49.0%, Toyobo 36.1%, ITOCHU 14.9%                            |
| Location:             | Headquarters and production plant: Rabigh Plus Tech Park,        |
|                       | Rabigh   |
|                       | Sales office: Riyadh   |
| Business Description: | Manufacture and sale of reverse osmosis membrane                 |

elements for seawater desalination

#### 2. Background to Establishment of Joint Venture

Toyobo's unique technologies and more than two decades of experience in seawater desalination have given it more than half the share of the market for seawater desalination membranes in the Middle East gulf region. Toyobo's membranes have been adopted for use at some of the largest desalination facilities in the Middle East, including the Shuqaiq District (240,000 m3 per day) and Rabigh District (220,000 m3 per day) facilities in Saudi Arabia. Toyobo membranes are also used at the largest desalination plant in Japan, the Uminonakamichi Nata Sea Water Desalination Plant (commenced operations in June 2005; 50,000 m3 per day; Fukuoka City).

Securing water resources is an important issue in Saudi Arabia, which has the

world's largest seawater desalination market (on a water volume basis).

The Saudi Arabian firm APD is one of the leading companies in infrastructure projects in Saudi Arabia, with business interests that include investment in Independent Water and Power Production (IWPP) projects and other vital business ventures in Saudi Arabia. ITOCHU has built numerous seawater desalination plants in the Middle East region, stretching back to the 1970s. Toyobo and ITOCHU have collaborated to sell desalination membranes in the Middle East region for many years, and are now establishing a joint venture in the seawater desalination business with APD.

For these reasons Toyobo, in order to expand its seawater desalination business, and considering APD and ITOCHU to be optimal partners for a joint venture, agreed to establish a joint venture in Saudi Arabia for the manufacture and sale of reverse osmosis membrane elements for seawater desalination. The joint venture for the manufacture and sale of reverse osmosis membrane elements for seawater desalination will be the first of its type in Saudi Arabia.

#### 3. Future Outlook

The joint venture will be established in March 2010, with production scheduled to commence from March 2011.

Toyobo considers this joint venture to be the focus point for its business expansion in the market for seawater desalination in the Middle East region, which is expected to continue to grow in the future. We plan to develop the business for reverse osmosis membrane elements for seawater desalination outside Saudi Arabia as well, expanding to other countries in the Middle East and North Africa.

The joint venture company is aiming for sales of approximately 60 million saudi riyals in 2011, and approximately 150 million saudi riyals in 2015.

#### 4. Signing Ceremony in Saudi Arabia

The signing ceremony for the joint venture agreement was held at the Four Seasons Hotel in Riyadh on February 16.

The ceremony was attended by representatives from the three partner companies, with guests including the Saudi Arabian Minister of Water and Electricity the patronage of H.E. Engineer Abdulah Al-Hossein, the Deputy Governor of SWCC H.E. Mr. Ahmed M. Al-Mudaiheem, the Deputy Minister of Commerce and Industry for Industrial Affairs H.E. Dr. Khalid Al-Sulaiman, and the Ambassador of Japan to Saudi Arabia Shigeru Endo. The delegation from Toyobo included President Ryuzo Sakamoto, General Manager of the Bioscience & Medical Division Kazuo Kurita, and Head of the Aqua Membranes Business Department Shinya Fujiwara.



Toyobo President Sakamoto (left) and APD Chairman Abunayyan (center) shake hands during the signing ceremony.



### 5. Other Information

This joint venture project has received support from the Japan-Saudi Arabia Industrial Cooperation Task Force of the Japan Cooperation Center for the Middle East (JCCME). (URL: http:// www.saudiarabia-jccme.jp/)

For more information, contact: Toyobo Public Relations Group pr\_g@toyobo.jp

## (For reference)

### About Reverse Osmosis Membrane Elements for Seawater Desalination

Reverse osmosis membrane elements for seawater desalination are the key components in seawater desalination systems. Composed of hollow fibers, they are fitted into the plant's pressure vessels. The elements to be used in the desalination plants are Toyobo's HOLLOSEP® modules. These elements use cellulose triacetate hollow fiber membranes, which are highly resistant to the chlorine injection used to prevent the growth of microorganisms. These elements have an excellent track record of operating performance at many plants in Japan and around the world.



A reverse osmosis membrane element for seawater desalination

#### Arabian Company for Water & Power Development

| Location:  | Riyadh, Kingdom of Saudi Arabia  |  |
|--|----------------------------------|--|
| Representative:  | Mohammed Abunayyan               |  |
| Business:  | Business development corporation |  |
| Note: Joint venture between Saudi Arabia's Abdullah Abunayyan Group and Al |                                  |  |
| Muhaidib Group.  |                                  |  |

### **ITOCHU** Corporation

| Location:             | 2-5-1 Kita-aoyama, Minato-ku, Tokyo   |
|-----------------------|---|
| Representative:       | Eizo Kobayashi, President and Representative Director   |
| Established:          | December 1, 1949  |
| Business Description: | ITOCHU is involved in domestic trading, import/export, and<br>overseas trading of various products such as textile,<br>machinery, information and communications technology,<br>aerospace, electronics, energy, metals, minerals, chemicals,<br>forest products, general merchandise, food, finance, realty,<br>insurance, and logistics services, as well as business<br>investment in Japan and overseas. |
| Employees:            | 4,310   |