

Nuclear Operators of the Barakah Plant

مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation

شركة برقة الذوق ش.م.ع
Barakah One Company P.JSC

شركة نواح للطاقة
Nawah Energy Company

An Overview of the UAE's Senior Reactor Operators (SROs) and Reactor Operators (ROs)

A group of highly trained and dedicated UAE National women and men will be at the helm of the UAE's nuclear energy plant.

To date, 30 talented UAE Nationals, including three women, have completed an exhaustive three-year training program and have been certified by the Federal Authority for Nuclear Regulation (FANR) as Senior Reactor Operators (SROs) and Reactor Operators (ROs). They represent the first Emirati professionals in this advanced field of the peaceful nuclear energy sector. To date, a further 42 international nuclear professionals have been certified as SROs and ROs.

ROs are responsible for operating and managing the Main Control Room (MCR) of a nuclear energy plant during regular operations and emergencies including starting up or shutting down a nuclear reactor and monitoring reactor parameters. SROs manage the MCR and supervise the ROs and Field Operators to ensure adherence to the highest standards of nuclear safety.

Reactor operators adjust control rods, manipulate equipment, implement operation procedures, conduct surveillance tests and optimize energy generation for the UAE's grid. They play a crucial role in ensuring that all aspects of plant operations are conducted according to the highest standards of safety, quality and security.

In July 2019, FANR certified the first group of 15 UAE National SROs and ROs, including two women. The second group, consisting of seven Emirati engineers, later received the same certification from the authority. In October, FANR certified the third group of operators, consisting of four Emirati nationals including one woman. The fourth group consisted of 14 new participants included four Emirati nationals.

The 30 engineers work at Nawah Energy Company (Nawah), Nawah, the subsidiary of ENEC mandated to operate and maintain all units at the Barakah Nuclear Energy Plant.

The path to becoming a certified reactor operator involves a rigorous program combining extensive theory and hands-on experience from leading nuclear energy experts. The program participants also have the opportunity to receive training in Korea, US and South Africa, whilst benefiting from world-class training facilities in the UAE.

ENEC's state-of-the-art, full scope APR-1400 training simulators are amongst the most advanced nuclear training devices in the world. The Simulator Training Center (STC) includes complex core modelling and ultramodern instrumentation and control (I&C) systems. Simulation training is part of the essential safety culture of ENEC and Nawah and has played a critical role in the operational readiness preparations.

The STC will provide ongoing training for Nawah's working RO and SROs, with a Continuing Training Program rotating the organization's certified operators through a schedule of in-depth classroom and simulator training and testing every six weeks for the remainder of their careers.

ENEC is committed to building Emirati nuclear energy expertise, recognizing its pivotal importance in ensuring the long-term sustainability of the UAE Peaceful Nuclear Energy Program.

