



OSAMA A. TWAIQ: Jordan

Training on Uranium Extraction from Phosphoric Acid.



Dr. Osama Twaiq was awarded a two month fellowship by the International Atomic Energy Agency (IAEA) Fellowship Program. He trained at the Florida Industrial & Phosphate Research Institute (FIPR Institute) in Bartow, FL, USA. The training program was customized by senior experts from the FIPR Institute to address the technology Dr. Twaiq will need to characterize the composition of phosphate rocks in Jordan and extract uranium from the phosphoric acid produced by sulphuric acid digestion of the rocks. The training program included library study, consultation with experts, and laboratory exercises designed to teach uranium extraction techniques and analysis of the data performed. This training program will help to develop the phosphate industry as a secondary source of uranium to be used for energy in Jordan.

Dr. Twaiq also took the opportunity to attend a training course on Radiation Detection and Measurement near the FIPR Institute in Orlando. This training course highlighted best practices used to measure and monitor radioactivity and radiation in industrial processes. Extraction of rare earth elements (REE) is an additional area of training that FIPR would like to share with Dr. Twaiq because of potential future benefits to the phosphate industry of Jordan.

Participation in this visiting fellow program at the FIPR Institute, which is located within one of the oldest and largest phosphate mining and processing regions in the world, allowed Dr. Twaiq to attain a better understanding of the presence of uranium, REE and other radioactive materials in phosphate industry products and co-products, and the best methods to reduce the hazards that may negatively affect the environment and industry.

Dr. Twaiq is a geologist and mineral processing researcher at the Jordan Atomic Energy Commission (JAEC). He participates in some research activities at both national and international levels in cooperation with the IAEA.

Trained 2/1/2012—3/30/2012