

Nuclear Knowledge Development in Armenia

Gevorgyan A.A.

Department of Atomic Energy
Ministry of Energy,
Yerevan, Armenia,

E-mail: atomen@freenet.am

The need in nuclear knowledge in Armenia arose in late 60-s of the last century when the decision was made to start the construction of the first nuclear power plant in our republic, which would be also the first in the whole Trans-Caucasian region. Although all the basic design, construction and mounting activities were performed by several All-Union organizations, Armenia was in need of its own specialists to be involved into the works of construction and putting the power unit in operation. That is why the Armenian specialists were being sent to various scientific centers of former USSR for obtaining the appropriate nuclear knowledge by training and staging at nuclear power plants with the same type of reactor.

In 1973, in Yerevan Polytechnic Institute, a new specialty was established at the Department of Energy. More than 10 people from Armenia were sent to Moscow and other cities of former Soviet Union to study as post-graduates in the field of nuclear energy with the further getting their PhD degrees. It was to provide Armenia with domestic teachers - trained personnel experienced in this area of knowledge. The same year, based on one of departments of the Science-Research Institute of Energy, the "Nuclear Energy Science-Research Department" was created, which further became a branch of All-Union "Science-Research Institute for NPPs Operation" of Moscow. Now its name is "Armatom".

In 1983, the "Atomseismoproject" institute was established, and in 1987 – the "Atomservice" facility, both had a very important task to provide servicing and be in adhesion with the new built Armenian NPP. The above mentioned institutions were established in Armenia because at that time it was planned to build nuclear power plants in Georgia and Azerbaijan too.

After the Armenian NPP was shut down in 1989, the need for nuclear power specialists in Armenia decreased, and the specialty "Nuclear Power Plants and Installations" was canceled in the Yerevan Polytechnic Institute. After the collapse of the USSR, the scope of works that were performing by Armenian nuclear organizations on an All-Union scale, was reduced, and the nuclear knowledge had become unclaimed.

The year 1993 might be considered the year of rebirth for nuclear knowledge in Armenia, because the decision to restart Unit 2 of the Armenian NPP was made in that very year.

The specialty "Nuclear Power Plants and Installations" was resumed, and the Polytechnic Institute has nowadays its annual output of 12 -15 graduates with the

diplomas of “ NPPs specialists”. Moreover, the new specialty was also established for studies at the Yerevan State University – the “Physics of Nuclear Reactors”, with the annual graduation of 4 -5 specialists.

The ANPP support functions of “Armatom”, “Atomservice” and “Atomseismoproject” were restored. Those and some other institutions were involved into the large-scale activities related with the ANPP restart. “Atomseismoproject” re-evaluated the seismic conditions of the ANPP site. Now the institution is providing the services also for the nuclear power plants of Russian Federation. The “Atomservice” participated in works on elaboration of inspection and testing programs for the plants. “Armatom” elaborated and implemented a compact training simulator, multifunctional training simulator, as well as participated in works on Probabilistic and Deterministic Safety Analysis development for Unit 2 of Armenian NPP.

In 2000, the “Nuclear and Radiation Safety Research-Technical Center “, intended to enforce the process of licensing , was established at the ANRA.

It can be said, that the nuclear knowledge in Armenia is on a rather high level nowadays.