

The Social Control and Informative Association (TEIT) has visited Italy in a professional tour

The Social Control and Informative Association (TEIT) has increased its professional experience in Italy. The Italian nuclear program is in an absolutely different stage than the Hungarian one, since decommissioning of their nuclear power plants is on the agenda, nevertheless the leaders of the member settlements were able to gain a lot of useful experience.

During its study visit in Italy, the TEIT, which is 25 years old this year, made acquaintance with the activities of the state owned company SOGIN dealing with decommissioning of nuclear power plants and with radioactive waste management and of the company Ansaldo manufacturing, inter alia, secondary circuit large equipment used in nuclear power plants. The four nuclear power plants of the southern-European country have been shut down and, although there was a governmental intention to that, have not been restarted, since the use of nuclear energy had been rejected by the population of the country during two referendums. The electricity not produced by the nuclear power plants is mainly substituted from import, for example, by means of the electricity produced in French nuclear power plants. In Italy the ratio of electricity originated from fossil source is high and also the price of the electricity is significant.

As the first event of the programme, the mayors of the thirteen member settlements of TEIT and the communication experts from the Paks Nuclear Power Plant visited the site of the Caorso Nuclear Power Plant, where they were guided by Sabrina Romani who presented also the schedule of the decommissioning program to them. The BWR (boiling water reactor) nuclear power plant with electric power of 860 MW, started its commercial operation in 1978, produced electricity only for a period of 12 years, its turbine hall has been emptied, nowadays the building serves for management of low and medium level radioactive wastes. Important task is to decrease the quantity of radioactive wastes, to find a satisfying solution for disposal of them and to liquidate the site, which is a task being in progress for decades and demanding at least the same period again, the expert said.

During visiting the Latina NPP, foremost commissioned and located near Rome, the members of the delegation felt with good reason that they were in a museum. The graphite moderator reactor of this NPP produced an electricity amount of only 25 TWh within the period of 1963 - 1987. The leader of the site, Harralabos Katsavos, informed them, inter alia, about the measure taken in the meanwhile to reduce the power of the NPP, which originally was 153 MW, due to oxidation experienced on the equipment. The reactor hall of the building equipped with six outdoor steam generators is deserted, while its control room (with its dark and empty displays, monitors) serves as an auditorium. A part of the buildings has already been demolished, but new ones have been constructed in order to ensure a temporary storage facility for the radioactive waste originating from the decommissioning. The tasks of the experts, approximately one hundred people per site, are to perform decommissioning, decontamination, as well as packaging and disposal of radioactive wastes. According to the information received by the members of the Hungarian delegation from the director Francesco Troiani and the coordinator Gianluigi Migliora in the Rome headquarter of SOGIN, the equipment, buildings are decontaminated with different technologies, including ones developed by themselves.

The compactable radioactive wastes are compacted and stored in drums at the site. In Italy there is not yet a final radioactive waste deposit and neither the licence needed for the final section of decommissioning process of the nuclear power plants has been issued. The latter, as it was said, rather obstructs, and does not facilitate, accomplishment of the program. Due to the frequent changes of government, the necessary licences often delay. The leaders of the company SOGIN also talked about that they have asked a review from the International Atomic Energy Agency. The international control, as they said, is also important because by means of that they are able to confirm that their activities financed from state sources are cost effectively performed according to the relevant schedule.

The state-owned company SOGIN has been established in 1996 in order to accelerate the decommissioning work of the four Italian nuclear power plants. In the first period they performed only the above mentioned domestic tasks, however later they appeared at the international market in order to make the most of their experience, skills gained during the work, Francesco Troiani said. The director pointed out the importance of information and said that the Hungarian practice, that is the self-governments in the vicinity of nuclear facilities go into partnerships with each other, is new for him. It was mentioned that the spent fuel has been transported to abroad. However, the contracts for temporary storage will expire in 2022, therefore it is urgent to take the necessary measures. The deadlines related to decommissioning of the nuclear power plants apparently seem to be faraway: the green field area hand-over is planned to be performed in the period of 2030-40.

The leaders of Paks and of the settlements in its vicinity were supported during their study visit by Tünde Hagymási, foreign trade professional diplomat at the Hungarian Embassy in Italy, as well as by the engineers' office Rogante having significant professional experience at the area of nuclear energy and Hungarian professional relations. The work and results of the latter were presented by the leader of the office, Massimo Rogante, during the meeting held in the headquarters of SOGIN. The engineers' office shines in the application of the neutron technology. They perform non-destructive material tests. Since the nuclear power plants have been stopped in Italy from one moment to the next, the nuclear experts were not capable of utilizing their knowledge. Massimo Rogante, who is the single foreign member of the Hungarian Nuclear Society, has established a scientific relation with, inter alia, Hungary, one field of which is the research reactor at Csillebérc. The expert urges the widening of such professional cooperation.

Also Francesco Troiani, the director of SOGIN, is opened for further experience exchange, and said that even this year he will comply with the invitation received during the current visit. As he said, in addition to the Hungarian deposits, he is also interested in the contracted contact with population within organized frames. As Csaba Dohóczki emphasized, it was a surprise for their Italian hosts that the self-governments have been organized into a partnership and commonly represent their interests, and that they have established a contracted partnership with the nuclear power plant. As he said, more details were presented to them during the introductory presentation held by TEIT. He also said that, as vice-president, he will share his experience with the international organization of partnerships of the self-governments in the vicinity of nuclear power plants, GMF. Also other countries are interested in the decommissioning, consequently it may occur that also the other member states will organize similar study visits in the future, or they will invite an Italian guest lecturer to some meeting to be held by them.

‘A period of twenty-thirty years represents a moment at this technology’ István Gáncs, the vice-president of the TEIT, started to sum his experience. He added that this question has been being on the table in Italy for just such period, however there are a lot of further tasks to be performed. Consequently, it is an important lesson that, although a development process is in progress now in Hungary, it is very important already now to think about the decommissioning and the disposal of wastes originated from the decommissioning, and, similarly to the construction, also for it an engineering peak performance is needed. He noted that it was surprising information for him that the spent fuel is not stored in the country, but its storage is rented in France and Great-Britain. In addition he emphasized that if a country gives up the nuclear energy, then the collected competence is “uncultivated” and remains at theoretical plane.

During the visit János Fülöp, the major of Fadd, especially was interested in the decontamination, since he also worked at this discipline during its labour relations of more than twenty years completed in the nuclear power plant. As he said the decontamination is an important activity of the decommissioning and the waste disposal. The most significant challenge is demolition of the main equipment. During such work chemical treatment and mechanical cleaning are performed. The latter is completed by means of sand spreading, but it has not been revealed that how the contaminated sand is cleaned, he said.

As he phrased, he is sorry about the fact that a political minority is able to prevent the use of such technology. He said that also the Italian example confirms that it is not a good solution to hold a referendum in such question which demands significant competence. He recalled the experience gained during one of their earlier study visits, when a Swedish engineer, almost drawing tears from his eyes, said that they prepared for lifetime extension at one moment, while after the elections they had to think about the decommissioning. On account of such decision the collected competence deteriorates, and it is disadvantageous also for the settlements in the vicinity of the nuclear power plant, since the nuclear power plants represent workplaces and also support the given region.

Dr. József Bálint, the president of the TEIT, said that in his opinion it is not an appropriate solution to make a decision in this question within the frame of a referendum, because neither the technical data nor the financial details are known by the population. In Italy the electricity not produced by the nuclear power plants is substituted from import, including the French nuclear energy and the fossil energy sources representing a more significant environmental impact, respectively.

He particularly pointed out, as one of the important experience of the tour, that the preparation for the decommissioning has not to be started at the moment when the operating time of the units expires. Also the Italian example shows that the technologies, technical solutions have to be found and known. He recalled that while in Hungary there is a storage facility for final disposal of low and medium level wastes, in Italy there is no such facility in spite of the fact that the reactors have been stopped for more than thirty years.

Written by: Tünde Vida