Lessons learnt from the capacity building activities for Asian countries

Masaki Nakagawa

Japan Nuclear Energy Safety Organization (JNES)

TOKYU REIT Toranomon Bldg.3-17-1,Toranomon,Minato-ku,Tokyo, Japan 105-0001
E-mail:nakagawa-masaki@jnes.go.jp TEL:03-4511-1915

Abstract.

Japan Nuclear Energy Safety Organization (JNES) has being providing much of cooperative activities for establishing the nuclear regulatory infrastructure to the several Asian countries like China, Indonesia, Thailand and particularly Vietnam which either started extended construction of nuclear power stations or are launching on new nuclear power programs. Our cooperation to these countries covers several different types like long-term training course, issue-specific training course and periodic safety seminar etc.

Through these activities what we have learnt is that to help other countries is not an easy business. To fully recognize what are actually requested by the recipients' countries is not at all an easy business either. This paper will illustrate our experiences to have worked on the cooperative activities putting the emphasis on the lessons learnt through these experiences.

1. Our Experiences

For many years from the start, so called Long Term Training Program has been the focal point of our activities. The major elements of this program are;

- Classroom study on the principles of nuclear safety, nuclear regulatory system and activities, and overview of international nuclear development etc,
- Understanding of plant dynamic behaviors using power plant simulators (full-scale simulators and compact simulators)
- Hands-on training of safety analysis using PCs (safety evaluation codes for siting, RELAP etc,)
- Training of NDE covering UT, ECT, X-ray radiography, etc,
- Nuclear facility visits covering Japanese nuclear power plants, fuel fabrication factory, reactor component manufacturers etc,

In average this Program extends over 8-10 weeks. Participants per course amount to 10 people in total. We sometimes might see different degree of diligence of the trainees but most of them sent letters of gratitude suggesting potential usefulness of the experiences gained from this type of program for their current or future regulatory work.

In addition we conducted some short training programs dedicated to the specialized objectives, like safety guides or technical standards. These are usually around two weeks courses.

Basically trainees come from the regulatory bodies of the recipient countries.

2. Lesson learnt

Through the above experiences, we have learned that monolithic program neither works for every country nor for different organizations even within the same country. In some cases there is neither

independent regulatory body established nor clear separation between promoting organizations and regulatory bodies. Sometimes several organizations are competing with each other within the same country. (These might be a transitional situation due to the historical reason of that country and it is unfair to simply criticize). In order to provide a maximized regulatory assistance, we sometimes needed to invite representatives from more than one ministry and even from the licensees for the purpose of having unbiased understanding of the overall nuclear development program of that particular country.

Accordingly we sometimes organized joint seminars inviting several specialists from different organizations and in maximum case it covers 30 specialists from 6 different organizations of one single country. We firmly believe that this so called “30 people training” turns out to be quite a beneficial occasion where we could stand on the common platform to optimize our program jointly, while participants joining this program found good chances to closely communicate among themselves within that training irrespective of the sectional barriers between organizations. There are several challenges pursued by the IAEA to establish international harmonization among donor countries but there must be in-house harmonization first in the recipient country side as well. It would be of extreme delight for us if we could help recipient country so long as we are not jeopardizing country’s sovereignty. Lack of horizontal knowledge transfer from the trainees to other people in their country was also a problem to be resolved.

We found that we sometimes are apt to be complacent or imprinted on our minds about what we believe are beneficial and useful to the recipients’ countries and never consider the actual needs of them. These mismatches basically come from that we are so easy to forget the fact that the infrastructure of the regulatory system is a function of the history, culture and characteristics of the societies of these countries. Most of the cases trainees joining our programs are highly educated people within that society and needless to say they have high talent to learn, think and create by their own ability. Donner countries often forget this. By reconfirming this fact, we started to revisit that our program be as versatile as possible in order to meet the needs of the recipient countries particularly for the nuclear regulatory system. Our assistance should not be one-side thrust of one country’s regal system. There must be reciprocal and close dialogues when we are talking with recipients. Even one single English word meaning one commonplace regulatory system cannot be automatically implanted because of the unique sociological conditions and historical development of that particular country. Maximum effort should be devoted to mutual understanding. Cultural bias should be carefully considered and avoided as much as possible.

3. Way forward

Even today, we are not a hundred percent confident that we have established the best training programs addressed to the nuclear developing countries. Number of requesting countries is increasing and features of recipient countries are being diversified. Although recognizing the difficulty of the challenge, we, JNES, would like to keep working seriously to identify the optimum approaches to contribute to the nuclear safety in the emerging countries as much as possible, including effective use of e-learning, e-library and on-the-web communication using, for instance, the Asian Nuclear Safety Network (ANSN).