

Development of Export Control Comprehensive Management Model for Nuclear Power Plants and Other Projects

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1. Introduction

In 2009, the Korea secured a contract with the UAE (Barakah Nuclear Power Plant, BNPP) and the Jordan (Jordan Research and Training Reactor, JRTR) to build several Nuclear Power Plants (NPPs). However, since both the UAE and Jordan are located in the politically sensitive area of the Middle East, more thorough export controls were demanded.

Most of the series of processes associated with the project are very complex. Especially it is required that there are lots of managements of care and concern if the project contains strategic items such as NPPs.

The Korean nuclear industry and its related companies, such as the Korea Hydro & Nuclear Power (KHNP), are promoting greater exports of NPPs. It is likely that Korea will export more this technology to newcomer states in the future. As a result, the ROK has been improving its export control management system for NPPs.

In keeping with this national effort, Korea Institute of Nuclear Nonproliferation And Control (KINAC) developed comprehensive export control management model for NPPs and other projects, in preparation for this projected growth in the industry. This model also applies to the nuclear export case of the UAE, aims to manage the project from bidding to the end of the contract.

2. UAE BNPP export control schedule and outline of export control comprehensive management model

2.1 UAE BNPP export control schedule

The details on the UAE BNPP export control schedule are shown in Table 1.

Table I. UAE BNPP Export Procedure

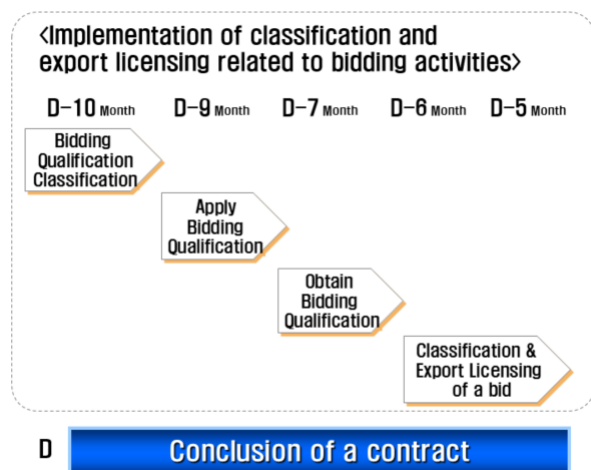
	Date	Main Contents
Bidding and Contracting	Mar.2009	-Application for bid qualification -Contract
	Jun.2009	-ROK-UAE Nuclear Cooperation Agreement (Signed at Dubai), classification of bid
	Dec.2009	-Selected as the final choice to carry out business
Establish plan	Jan.~Mar. 2010	-Established plan of export licensing timely
Consultative meeting	Feb.2010~	-Held 12 consultative meeting groups

groups		(resolved complaints, conferred review schedule, etc.)
Establish database	Feb.2010~ Nov.2012	-Established database for UAE nuclear items
First transfer	May.~Dec. 2010	-Classify the PSAR (Preliminary Safety Analysis Report) of BNPP
Governmental Assurance	Mar.~Dec. 2010	-Received UAE Blanket Single Assurance (comprehensive governmental assurance)
Export Licensing	Dec.2010~	-Export licensing of PSAR (10.12) -Export licensing of SSAR (11.7)
Support recipient country	Nov.2011~	-Technical cooperation meeting between NSSC-FANR
Training export control	Dec.2009~	-Information meetings -Training in export control

2.2 Outline of export control comprehensive management model

Before the construction of nuclear power plants, or other such projects, a comprehensive export control management begins with reviewing on a bid. It takes a total of 10 months from starting the bidding process to the conclusion of contract.

After a main contract, Nuclear Safety and Security Commission (NSSC), KINAC and company have to establish and operate the following items: consultative meeting group, nuclear project export management system, receive comprehensive governmental assurance, cooperation with recipient country, export control training, and follow-up management plan. Process is shown in Figure 1.



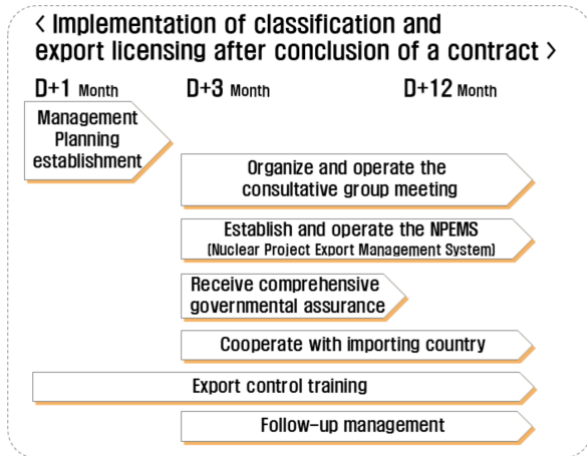


Fig. 1. Process of Export Control Comprehensive Management

3. Export control comprehensive management model for NPPs and other projects

3.1 Implementation of classification and export licensing related to bidding process

If any transferred items are correspond to strategic items, exporters have to receive approval of classification and export licensing from the NSSC. A classification procedure and items are as follows: 1. Transferred materials, technology documents and software 2. Training, meeting and seminars relevant data

After classification, the exporter must comply with the export licensing procedures for strategic items. Prior to submitting a bid to contract activities, or a technology, documents shall apply to NEPS (www.neps.go.kr) and Yestrade (www.yestrade.go.kr).

After the contract, the exporter should apply classification and export licensing for the expected transfer items through NPEMS (Nuclear Project Export Management System). It will take 15 days for each application to be approved by the government. The exporter must apply leisurely for those consideration of the export schedule.

3.2 Management planning establishment

After the contract has been approved, a comprehensive export control management plan must be established between the government and the exporter within two months.

Both parties must: ① Determine the export control implementation company (for example, KEPSCO) and export items list, ② Agree to the classification and export licensing promotion schedule, ③ Organize consultative group meetings, ④ Create export control training plans, ⑤ Organize NEPMS, ⑥ Create a follow-up management plan (an intergovernmental exchange of the transferred items list periodically), and ⑦ Cooperate with the importing country

3.3 Organize and operate a consultative group meeting

A consultative group meeting is needed in order to examine any difficulties arising in implementing export control. Issues pertaining to shared project status, with respect to the export control of the project, will need to also be discussed. A UAE and Jordan consultative group meeting will be held once every six months. All members of the consultative group can request a meeting when export control issues occur.

3.4 Establishing and operating the NPEMS (Nuclear Project Export Management System)

NSSC and KINAC can establish and operate the system such as NPEMS to manage the integration of strategic item. The management system is essential for enhancing convenience, to enhance the efficiency of strategic items management and to increase transparency. The NPEMS process is shown in Figure 2.

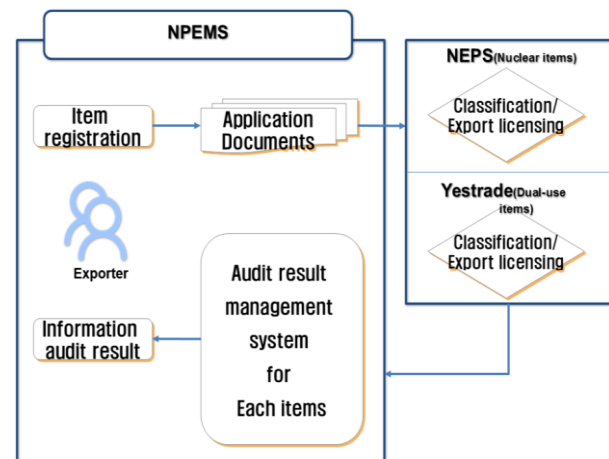


Fig. 2. The Flowchart of the NPEMS

3.5 Receive a comprehensive governmental assurance

The NSSC establishes the plan for receiving the importer governmental assurance covers transferred within the contract period all nuclear items.

From the point of export contract, NSSC promotes the receipt of comprehensive governmental assurance in cooperation with government ministries such as the Ministry of Foreign Affairs.

3.6 Cooperation with a recipient country

Follow-up the comprehensive governmental assurance, the Korean government secure a cooperation channel to followup management and prevent illegal retransfer items through the exporter-importer cooperation.

3.7 Export control training

The NSSC and the KINAC should try to ensure smooth export through sharing of the export control awareness, enhancing the export control fulfillment and practical training of the person in charge.

3.8 Follow-up management

Both governments have to guarantee that transferred nuclear items are used for peaceful purposes only.

4. Conclusions

The recent Export Licensing of Nuclear Facility Technology was reflected in the Notice on Export and Import of Strategic Items in January 2014 [1]. Through this license, the large-scale project legislation framework was established.

However, this comprehensive management model enables to implement a specific practice guide step by step for the government, institutions, and companies. Strict adherence of the strategic trade control system and lesson of the administrative burden to the licensor and licensee through these processes and this model.

It can provide convenience for stakeholders in order to export items in a timely manner. It can also minimize nonproliferation concerns of the international community through strict management [2]. It is expected that the Korea will be able to enhance transparency and secure the nuclear use, while meeting nonproliferation purpose.

REFERENCES

- [1] The Ministry of Trade, Industry and Energy, Notice on Export and Import of Strategic Items, 2014.
- [2] The International Atomic Energy Agency, IAEA Nuclear Security series No. 7, 2012.