



# Practice of Export Control in JAEA

Hideo SASAJIMA

Office of International Affairs  
Japan Atomic Energy Agency, JAEA

The 2nd Symposium of International Group of Export  
Regulations, INGEER,  
November 21-22, 2016 in Caen, France

# Contents

---

1. Overview of JAEA
2. Export Control of JAEA as R&D Institute
3. Issues in Carrying Out Export Control of JAEA  
(from practical point of view)
  - 3.1 Difference in Regulation between NSG and Japan, and Diplomatic Procedure
  - 3.2 Transfer of Technology in Research Activities in the Field of Basic Science
  - 3.3 Export Administration Regulations, EAR, of USA

# 1. Overview of JAEA

---

- ☼ Japan Atomic Energy Agency, JAEA, is the comprehensive research and development institute in the field of nuclear energy.
  - Response to accident at the Fukushima Daiichi NPS
    - ✓ Technology development for environmental restoration and decommissioning of the damaged reactors
  - Nuclear fuel cycling R&D
    - ✓ Fast breeder reactor cycle technology
    - ✓ R&D for the geological disposal of High-level waste
  - R&D on thermonuclear fusion\*
  - Quantum beam science and technology\*
  - Efforts to ensure safety/peaceful uses of nuclear energy
  - Nuclear science and engineering research, Advanced science research
  - Decommissioning own facilities, Treatment/disposal of radioactive waste
  - Collaboration with external institutions, human resources development and others

\*: Transferred to National Institute for Quantum and Radiological Science and Technology (QST) in April, 2016.

## 2. Export Control of JAEA as R&D Institute (1/2)

---

- ☼ Due to the enhancement of Foreign Exchange and Foreign Trade Control Law in 2009 regarding transactions involving transfer of technologies, effective export controls are required of universities and public research institutes.
- ☼ Responding to the above modification of the law, JAEA has conducted exporting goods and transferring technologies in the framework of international research cooperation, etc., adopted stricter procedures for export control in the internal compliance program, ICP, established in 2009 under the leadership of the president of the JAEA.
- ☼ The Office of International Affairs is in charge of operations necessary for export control and manages export control-related practice in JAEA.

## 2. Export Control of JAEA as R&D Institute (2/2)

---

- JAEA conducts the first screening of export control regarding;
  - ✓ Attendance to international conference/academic conference :  
~600-700 persons/year
  - ✓ Acceptance of foreigners to general visiting courses in the facilities of JAEA: ~2000-3000 persons/year.
- The number of classification applying for export control or not has exceeded 600 since the establishment of the ICP of JAEA.
  - ✓ Transfer of technologies: 75% > Export of goods: 25%
- Transfer of technologies
  - ✓ Nuclear fusion research (~29%), Research by using Japan Proton Accelerator Research Complex (~16%), Nuclear nonproliferation (~10%), R&D on next-generation reactors (~7%), Safety research (~6%) ← In spite of an R&D institute dedicated to nuclear energy, transfer of technologies is broad in scope.
- ❑ Destination: Mainly European and American research institutes; Not in a few cases Southeast Asian governmental organizations

### 3. Issues in Carrying Out Export Control of JAEA (from practical point of view)

- 3.1 Difference in Regulation between NSG and Japan, and Diplomatic Procedure
- 3.2 Transfer of Technologies in Research Activities in the Field of Basic Science
- 3.3 Export Administration Regulations, EAR, of USA

# 3.1 Difference in Regulation between NSG and Japan, and Diplomatic Procedure (1/2)

---

- ☼ JAEA carries out international cooperation activities with research institutions of many countries.
- ☼ If the international joint research contains R&D of goods included in the list of Nuclear Suppliers Group, NSG, Part 1, an international regime, and the transferring technologies not in public domain, a diplomatic procedure for exchanging the verbal note is necessary, and then the export license is obtained.
- ☼ Such diplomatic procedure was followed actually for Advanced Sodium Technological Reactor for Industrial Demonstration, ASTRID, which France and Japan are jointly developing.
- ☼ In the diplomatic procedure, the category numbers of controlled items in the list of NSG Part 1 and Japanese regulation are respectively required to be identified in a request relating to the verbal note.
- ☼ However, the list of NSG Part 1 and Japanese regulation are subtly different.
  - (e.g.) Artificial graphite: There is regulation based on size in Japan. Regulation relating to weight is different (NSG: 30 t or more, Japanese control: 1 kg or more)

# 3.1 Difference in Regulation between NSG and Japan, and Diplomatic Procedure (2/2)

---

- ☼ Also, it is possible that the regulation of the country of joint research partner is not exactly the same regulation as Japanese and also the list of NSG Part 1.
- ☼ While the existence of difference between international regimes and domestic regulation may be reasonable, the exchange of a verbal note takes a lot of time and effort.
  - Joint research on ASTRID
  - Data on spent fuelExchange of the verbal notes: ~5 months
- ☼ Time required for the diplomatic procedure differs widely depending on the cooperative contents and country/institution.
  - ⇒ Not only impeding promotion of international joint research at an R&D institute JAEA, interfering the progress of international projects of manufacturers exporting a plant and equipment, it may lead to an international problem.

## 3.2 Transfer of Technology in Research Activities in the Field of Basic Science (1/2)

---

- ☼ Both international regimes and domestic regulations of countries admit some exemptions to which export license are not required.
- ☼ (e.g.) Transfer of technology in the public domain and transfer of technology in research activities in the field of basic science (basic scientific research).
  - ⇒ While the applicability of exemption to “transfer of technology in public domain” is almost clear, the scope defined by “transfer of technology in basic scientific research” is ambiguous.
- ☼ In Japan, the definition of exemption of “basic scientific research” is referred to that of Wassenaar Arrangement, WA, as shown below.
  - Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.
- ☼ In Japan, it is defined as “mainly aims to identify principles of phenomena in the natural science fields”, and additionally “not aim at designing or manufacturing a specific product” in stead of “not primarily directed towards a specific practical aim or objective”.

## 3.2 Transfer of Technology in Research Activities in the Field of Basic Science (2/2)

---

- ☼ Universities, etc. requested to clarify its definition in 2014, however the request was denied by the regulatory agency.
- ☼ To prevent complicated export control procedures, JAEA researchers have tendency to use the exemption, which university professors may have in common.
- ☼ Universities and R&D institutes can meet the requirement in the definition of “experimental or theoretical research undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts.”
  - ⇒ In Japan, in addition to consideration of one’s research is natural science field or not, interpretation of “not aim at designing or manufacturing a specific product” is necessary.



- ☼ Clarification of the definition in the international regimes, and furthermore that of exemption in the domestic regulation are necessary.

## 3.3 Export Administration Regulations, EAR, of USA (1/2)

---

- ☼ For exporting goods/transferring technologies, in addition to checking domestic regulation, JAEA identifies products made in and technologies originated in USA.
- ☼ This confirmation is not on Japanese regulation based on the recommendation of Center for Information on Security Trade Control, CISTEC.
  - It is the confirmation relating to the re-export control of USA.
  - Below is the overview of the re-export control of USA.
    - ✓ When goods exported or technologies transferred from USA that are subject to the export administration regulations (EAR) are going to be re-exported to the third countries or specific users in the third countries, the same regulation is applied to those.
- ☼ JAEA, as R&D institute, conducts joint research with countries besides USA, and such joint research often involves exporting goods made in USA and transferring technology originated in USA.

# 3.3 Export Administration Regulations, EAR, of USA (2/2)

---

- ☼ In such cases, EAR should be checked.
    - In addition to the difficulties caused by Japanese regulation, EAR should be checked.
    - Even though checking of products made in USA may be acceptable, checking
      - ✓ incorporated parts made in USA
      - ✓ technologies originated in USA } takes considerable time and effort.
  - ☼ Failure to this confirmation and violation of EAR do not cause any trouble in Japan.
    - To attend an international conference etc. held in USA, not knowing registered the denied persons list due to the violation of EAR, entry to USA may be denied.
- ⇒ While extraterritorial controls of USA has a point, it is outrageous.

---

Thank you for your  
attention.

