

# **The importance of Industry compliance to Ensure Nuclear Security and Growth in the Changing Times**

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## **Abstract:**

Export Control is one of the very strong pillar of Nuclear Security. Robust export control is an effective way to serve either as a deterrent and/or delay the efforts of the proliferators to acquire WMD items or related technologies. An industry with an internal compliance system (ICS) is a new concept which is now being introduced to improve the efficiency of export control. The present paper highlights how an Internal Compliance System (ICS) by industries can be integrated with the national and international export control policy to strengthen nuclear security.

## **1.0 Introduction:**

In recent years, the non-proliferation of weapons of massive destruction (WMD) and the export controls of conventional weapons in addition to civilian and military dual-use technologies have been one of the most important matter of concern worldwide. The devastating effects of the war had made the International community to think and put various mechanisms to enhance international cooperation to strengthen peace and international security. The most effective way for enhancing peace and security is based on the principals of disarmament, arms control and non-proliferation. Efforts are being made to establish international regimes for disarmament, arms control and non-proliferation which will mostly depend on various principals and implementation mechanisms or guidelines. Consolidated efforts were put to combat the proliferation of WMD, as these have posed serious threat to international peace and security.

One of the approach to strengthen non- proliferation is to have an effective export control which is formulated by exporting countries to regulate export or transfer of goods out of the state. Strategic trade controls ensure that legitimate trade in the strategic goods, dual-use goods, services and technology continues to grow, the illegitimate trade is effectively regulated to eliminate the possibility of such items falling in the hands of terrorist and other non-state actors with malicious intentions. Many international treaties have been signed and the international organizations have been established to promote the non-proliferation and export control efforts. Moreover, strengthening of mechanisms to control the conventional arms became equally important in the present scenario.

## **2.0 Effective Export Control Regime:**

An effective strategic trade control depends on two interrelated and mutual reinforcing pillars: International Framework and National Framework.

## **2.1 International Framework:**

An effective nuclear security must be a combined effort to balance the initiatives taken at international and state level [1-6]. There are various multilateral export controls regimes (MECR), viz. Nuclear Supplier Group (NSG), Wassenaar Arrangement (WA), Australia Group (AG) and Missile Technology Control Regime (MTCR). MECRs are groups that are independent of the United Nations, that states may use to organize their export control programs. Their regulations apply only to its members and it is not obligatory for other states to join. The main aim of these control regimes is to promote the non-proliferation and implement effective control mechanisms to ensure that legitimate trade in the strategic goods, dual-use goods, services and technology continues to grow to strengthen state's economy and support industries, but also to control the illegitimate trade to eliminate any possibility of such items falling in the hands of terrorist and other non-state actors with malicious intentions. The purpose of export control is not to deny the transfer of every conventional or nuclear weapon-related commodity or technology, but to ascertain that the ultimate end use is not for non-peaceful purposes.

The first initiative to combat proliferation of items related to nuclear is the adoption of Zangger trigger list in 1974, which controls the export of equipment or material especially designed or prepared for the processing, use or production of special fissionable material. Similarly, in 1974, London Group which was renamed as Nuclear Supplier Group (NSG) and its guidelines were adopted for the transfers of Nuclear related dual use Equipment, materials, software and related technology. NSG shares many of the Zangger Committees goals with the additional control on the transfer of the Nuclear dual use items. Thus, NSG frames and implements guidelines for exporting nuclear material, equipment and technology, to combat proliferation of nuclear weapons. Its main purpose is to ensure that nuclear trade for peaceful purposes does not contribute to the proliferation of nuclear weapons or other nuclear explosive devices, while not hindering international trade and cooperation in the nuclear field. It facilitates the development of peaceful nuclear trade by providing the means whereby obligations to facilitate peaceful nuclear cooperation can be implemented in a manner consistent with international nuclear non-proliferation norms. The NSG Guidelines are implemented by each Participating State in accordance with its national laws and practices.

Additionally, there were various initiatives taken to combat proliferation of Biological and Chemical Weapons which includes Geneva Protocol in 1925, Biological and Toxin Weapons Convention (BWC) in 1975, Chemical Weapons Convention (CWC) in 1997 and Australia Group (AG) Guidelines in 2002. AG ensures that exports related to Chemical and biological items do not contribute to the proliferation of WMD and aims to harmonise national export controls with its guidelines. AG mandates that States should fulfil their obligations under the CWC and the BWC to the fullest extent possible.

The international regimes for the non-proliferation of WMD are effective only if their delivery systems are also controlled. Missile Technology Control Regime (MTCR) is also an informal initiative taken to prevent the proliferation of 'missile' and 'unmanned aerial vehicle' technology which are capable of delivering WMD by controlling their export. This regime controls the proliferation missile equipment, material and related technologies usable for systems capable of carrying WMD. MTCR is supplemented by The Hague International Code of Conduct against Ballistic Missile proliferation (ICOC).

There are various other initiatives taken to curb proliferation of Conventional arms as they also pose threat to the society. One of these initiatives is United Nations Register on Conventional Arms, 1991 which was based on the

recommendations from the General assembly of United Nations. Other initiative is Wassenaar Arrangement (WA) which was adopted in 1995. WA focuses on regional and international security by promoting transparency and responsibility in transfers of conventional arms (Munition items) and dual use goods and technologies and ensures member States to harmonise their export policies.

In addition, there are various binding and non-binding international instruments like CPPNM and its amendment, UNSCR 1540, ICSANT, Code of Conduct for the safety and security of radioactive sources, etc., which also call for robust export control regimes within states either directly or indirectly. These initiatives are effective only if it strikes perfect balance among states. It is the prime responsibility of States to implement the recommended policies and guidelines in their domestic export control regimes.

## **2.2 National Framework**

Nuclear security is the sovereign responsibility of individual states. State's nuclear security regime is to protect persons, property, society, and the environment from malicious acts involving nuclear material and other radioactive material. This can be achieved by state adopting a multilevel approach like effective physical protection systems, cyber security, Transport security, NUMAC, information security, nuclear security culture and robust export control. Maintaining an effective export control system in a State enhances nuclear security. It ensures that nuclear or radioactive material or sensitive technology does not fall into the hands of rogue states or non-state actors who could then misuse it for acts of terrorism. Presence of robust export control mechanism in a state is thus an important attribute to strengthen nuclear security.

State should have a legislative framework for its export control regime and should develop policies and mechanisms to regulate and control trade with deterrence to proliferation efforts and criminalization of offences related to export of strategic goods and technologies. It is the responsibility of state to enact primary and secondary legislation to define responsibilities of licensing authorities, personnel's/individuals or industries involved in trade to ensure that all the export related to sensitive goods should be only for peaceful purposes. Each state should have a national control list of strategic goods, dual-use goods, services and technology which need effective regulation. An effective export control should have elements for prohibition of export for the development of WMD, special controls on sensitive goods or technology, controls on retransfer with strict adherence of non-proliferation principals, Applicability of multilateral agreements to which state is a party, State's foreign policy, International obligations pursuant to treaties and conventions to which State is a Party. In additions, it should also have deterred, delay or denial policy so that only legitimate trade take place.

The licensing authority of state should have a detailed licensing procedure. Licensing of each export applications should be evaluated for national security considerations, Credentials of end-user, Credibility of stated end-use, Chain of transmission, Timing of export, assessed risk of diversion to terrorists, Capabilities of the recipient State, Export control measures instituted by the recipient State, Appropriate IAEA safeguards arrangements in the recipient State.

In addition, state should have an effective Border Control mechanism to ensure that there is no illegal export or import of radioactive or nuclear material. Major ports for sea, land, air where transfer of goods take place should have portal monitors.

Licensing authority should undertake outreach activities for industries to spread awareness about regulations and risk associated with the trade of nuclear related commodities.

### **3. Effective Coordination between State Licensing Authorities and Industries:**

State's licensing authority and Industry have distinct responsibilities for mutual reinforcing each other:

- i) The Role of licensing authority is to in develop policies and mechanisms to regulate and control trade with deterrence to proliferation efforts;
- ii) The role of the Industry is to develop internal compliance systems to ensure strict adherence to governments' policy and regulation;
- iii) The need for Industry to understand their responsibilities and work together with licensing authority with mutual coordination.

Robust export control in any state depends on the Industry awareness of their role to mitigate risks and enhance nuclear security. Effective export control is evolved on an interlocking set of national and international legislation, regulations, and agreements. The state legislations provide the basis to have a transparent and standardized national licensing system and to maintain competent technical evaluation of proposed transfers of nuclear-related materials, equipment, and technologies.

Licensing authorities should undertake outreach activities to industry to spread awareness about regulations and risk associated with the trade of nuclear related commodities. This help the Industry to understand the motive for export control and this may promote them to develop an ICS. An effective ICS of an industry should ensure regulations as enacted by the government including export policies, control list and licensing procedure. The authorities should make efforts to publish documents for procedures containing information for export/import licensing and is easily accessible to the industry. In addition, efforts should be made to make hassle free communication between them and Industries regarding clarification or queries on any trade of nuclear related commodities and technology. When any legislation is introduced or amended in relation to export control, views from concerned industry associations should be taken into account. A close network between Government and Industry and understanding each other's objective is a way to strengthen nuclear security. All these measures facilitate industries to develop mechanisms and follow 'best practices' for trade of nuclear related commodities.

#### **4.0 Development of ICS by Industry:**

The ICS of any industry should have standardized procedures to check credentials of the end user with whom industry is doing business. An ICS of Industry should be developed on the following measures:

- i) ***Compliance with regulatory guidelines:*** An ICS of industry should be developed based on the regulatory guidelines. It should have complete compliance with export control requirements.
- ii) ***Requirement of License:*** An ICS of industry should have an updated database for the list of goods, items and technology that require license from regulatory authorities. In addition, it should have information of all the mandatory documents required by the authorities for the grant of export license.

- iii) **Model Country Groups:** An ICS may develop a grouping system in which countries which have strong export control system and have subscribed to various international instruments and MECR in one group and rest countries in others. This will ease the scrutiny procedures of ICS by industries.
- iv) **Screening of End User:** ICS of industry should ensure that the end user or end user company is not listed on state or international sanctioned list. This also include checking of foreign buyers, consignee and brokers involved in the chain of transmission of trade.
- v) **Stated End Use:** ICS of industry should have technical experts to ensure that the stated end use qualifies for the technical specification provided by end user. This screening is essential to avoid proliferation of sensitive goods and technology.
- vi) **Mode of Financial Transactions:** ICS should verify the mode of financial transactions and should avoid transactions from unknown parties or channels.
- vii) **Previous Record of Business with the End User:** ICS should maintain record and account of all the strategic trade in which their industry is involved for a minimum period of five years.
- viii) **Retransfer of the Exported Goods or Technology:** ICS of industry should maintain separate records of goods that involves third party transfer. This include prior information on the third party and its end use. ICS should also check that the reported third party is not on prohibited or sanctioned lists.
- ix) **Updating of ICS:** ICS of industry should be updated in accordance with regulatory guidelines issued by the licensing authority.

An industry is also responsible for training all its staff involved in trade of strategic items or technologies and must keep a complete documentation of all the trade related matters. An ICS prevent these Industry of doing business with unauthorized/shell companies which may prove to be a threat to global nuclear security. The technical evaluation by the licensing authority become very effective and less time consuming if industry has done the ground work as per their ICS.

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3. INFCIRC/225/Rev.5: IAEA Recommendations.
4. United Nations Security Council resolution 1373.
5. United Nations Security Council resolution 1540.
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7. PNNL-SA-107041, US Department of Energy under contract DE-AC05-76RL01830.