CONTRIBUTION OF INDUSTRY TO EVOLUTION OF THE REGULATIONS - EXAMPLE OF MARITIME TRANSPORT

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BACKGROUND

The IMO, first established in London in 1958, is one of the UN's « front line » agencies: from the very beginning, the improvement of maritime safety and the prevention of marine pollution have been IMO's most important objectives.
It consists of 152 Members States and most of its work is carried out in a number of committees and sub-committees. All these bodies are composed of representatives of Member States who perform their task with the assistance and advice of appropriate bodies of the United Nations or the specialized agencies, as well as international governmental and non-governmental organizations.

Probably, one of the most important single contribution of IMO to safety at sea was the adoption of the Safety of Life at Sea Convention (SOLAS) in 1974. Special requirements (fire protection equipment, for example) of ships carrying dangerous goods are included into SOLAS, but there was nothing specifically addressed to ships carrying nuclear materials.
This Convention refers to and is supplemented by the International Maritime Dangerous Goods (IMDG) Code, whose Class 7 contains provisions for the transport of radioactive materials by sea, following the IAEA regulations for the Safe Transport of Radioactive Materials Safety Series 6 (1985 Edition, as amended 1990).

REGULATIONS OF SEA TRANSPORT OF NUCLEAR MATERIALS: A CHANGING ENVIRONMENT

The safety of carriage of irradiated nuclear fuel by cargo ships was first questioned within the International Maritime Organization (IMO) by Italy in 1985. After a lot of debates and the express of different views on the need for additional measures covering ship's design, construction and equipment, a Joint Working Group gathering IMO, IAEA and UNEP decided that the implementation of a new Code was necessary to achieve conventional safety of ships carrying spent fuel, plutonium and high level waste.
It has also been stressed that this Code would be a complementary measure to IAEA regulations, whose basic philosophy is that safety during transportation is ensured mainly by the package design whatever the mode of transport.

In autumn 1993, the regulations concerning nuclear sea transportation has therefore significantly evolved, with the adoption by the IMO General Assembly of the so-called INF Code (or *Code for the Safe Carriage of Irradiated Nuclear Fuel, Plutonium, and High Level Waste - Resolution A. 748(18)*). The Code sets standards for the survival capability of ships carrying those materials.

After having adopted the INF Code at its 18th session, the General Assembly approved at its 19th session a resolution requesting two of the IMO main committees (Maritime Safety Committee and Marine Environment Protection Committee) in consultation with IAEA and UNEP to continue to review the INF Code and to consider, inter alia, some specific issues. Moreover, the General Assembly decided in November 1995 to endorse the Secretary-General's proposal for a meeting with Member Governments and international organizations concerned, in order to carry out a thorough examination of all aspects of the carriage by sea of materials falling under the purview of the INF Code.

THE SPECIAL CONSULTATIVE MEETING AND THE INVOLVEMENT OF INDUSTRY

This meeting was convened as a **S**pecial **C**onsultative **M**eeting (SCM) of entities involved in the maritime transport of materials covered by the INF Code. It has been held, in consultation and with the participation of IAEA and UNEP, at the Headquarters of the Organization from 4 to 6 March 1996. It was attended by representatives from 34 Member States, 2 UN specialized agencies, one intergovernmental organization and 4 non-governmental organizations. Twenty different presentations were made by twenty-eight speakers.
The main objective of this meeting, as described by the Secretary-General during the opening-session, was to examine in some detail the carriage of nuclear materials by sea, which had indeed caused some questioning and had given rise to discussion. The return of plutonium dioxide from France to Japan by the sea-going *Akatsuki Maru* at the end of 1992, as well as the voyage in 1995 of the *Pacific Teal* carrying vitrified residue had set indeed the spotlight on sea transport of radioactive material.
One of the expected result of the meeting was that everybody would benefit from sharing information, concerns and ideas and would gain a better understanding of the safety and environmental factors involved.

All the industries involved in nuclear transportation, included COGEMA and its subsidiary Transnucléaire, have prepared carefully this meeting being aware of the stakes.
It was indeed an exceptional opportunity to communicate -in a forum like the IMO- our own experience and to give information to non-nuclear States, which are far from familiar with this activity. This information-service of the industry is very important, when one knows that some anti-nuclear groups using their non-governmental status, are very pro-active in the IMO. One point of their strategy consists namely in attempts to mobilize non-nuclear States and en-route States, and to make them contesting the international regulations, that they always find too weak.

In this specific framework, the industries have to deliver as often as possible safety messages, that means to recall what is the actual regulations governing their activity, but also what is the safety record of this activity. Beyond individual presentation, COGEMA had submitted with BNFL and FEPC a document (*Information paper submitted to the Special Consultative Meeting*) whose content was comprehensive and which still remains a reference. Finally, a ship owned by Pacific Nuclear Transport Limited (PNTL) whose shareholder is BNFL, COGEMA and Japanese electric utilities was berthed in the Thames.

One can easily understand that a meeting such as the SCM has represented an opportunity for COGEMA and Transnucléaire to show how they work and therefore to deliver precise factual information about nuclear transportation with two main objectives:

- helping the IMO, in close cooperation with IAEA and UNEP to carry out works concerning the regulation evolution,

- providing information to non-nuclear States, which are sometimes worried by misleading information from antinuclear organizations.

THE NEED FOR A CONTINUING AND LONG-TERM COMMITMENT

Beyond this major punctual contribution to the thought on nuclear sea transport regulation, the industries tend to be more engaged in all IMO sessions. As previous underlined, the 19th session decided to pursue the revision of the INF Code and a lot of issues related to the Code are under discussion at the Organization.
From shipboard emergency plans to notification and liability topics, one can easily notice that a lot of amendments to the INF Code are considered. The landscape of nuclear sea transportation is far from being finished and more stringent regulations are very probable, in view of the fact that some States have specific concerns regarding the sea.
First of all, the en-route States' perception on nuclear transport is shaped by preoccupation on tourism or fishing resources. Second, the entry into force of the UN Convention on the Law of the Sea in 1994 has allowed the implementation of the Exclusive Economic Zone (EEZ) of 200 miles : this zone mainly devoted to the establishment and exploitation of mineral rights has been interpreted by some States as a mean to exercise in this area a « crisping jurisdiction » by claiming a full sovereignty, whereas all the ships crossing the EEZ enjoy the freedom of navigation like in the high seas.

This long-term commitment is all the most necessary, because IMO own decision-making process is a very gradual one : the meetings of each committee take place two times per year and they deal with a lot of items. That means that an agreement on a issue is a very long walk. Added to that, only the General Assembly, whose session happens every two years, is able to take a final decision for the adoption of Codes or recommendations.

Taking into account this particular frame and at the request and on support of our own Authorities, COGEMA -through Transnucléaire- are following very carefully the debates at the IMO. In order to achieve in the best possible conditions this goal, we have implemented a close cooperation with our government.

At each IMO session, some papers are submitted by States' delegation, non-governmental organization or the Committee's Secretariat : during preparation meetings, the French industry discussed with the French representatives about the ins and outs of each proposal. Because we apply every day the regulation, our advice helps them to surround the consequences of each new suggestion and to understand what is at stake in each negotiations. Of course our Authorities remain the State representative at the IMO, taking into account other (non INF) matters to take the right decision : we are just here to provide information-background on our activity, in order to help the good decision to be taken.

Moreover, the Authorities ask us to attempt important Committees of the Organization, such as the Marine Environment Protection Committee (MEPC) or the Maritime Safety Committee (MSC), which deal with the INF Code. The MEPC is responsible for the prevention and the control of pollution of the marine environment from ship, and the MSC deal with a lot of issues such as the safety of navigation or the carriage of dangerous goods.
After having prepared the Committee with our own Authorities, we assist them during the debates. One of the main reason of our presence is that we can provide, if necessary, technical acknowledge to our government. One has indeed to keep an eye on the fact that nuclear sea transportation is contested by some anti-nuclear through pseudo-scientific reports. These reports, which provide no technical evidence to support unsubstantiated assumptions, are used by the anti-nuclear organizations in order to contest the validity of the implemented regulations. In such a context, our mission consists also to provide information to our government, in order to help them to lead the debates on such items. For example, they have to know that these studies have been dismissed by international experts bodies from the IAEA or by the Sandia National Laboratories (US) or by independent academics. Our mission is to give them the most comprehensive information, in order to provide them all the pieces of the issue.
At last, our presence during the discussions on the regulation evolution is useful, because the industries can help a modal organization like the IMO to adapt and complete the IAEA recommendations. Because we know these regulations, but also the on-going work undertaken by the IAEA, we are able to provide some complementary information, and once again to help the representatives to know the general pattern of their discussions.

Beyond this mission of information and technical assistance, the fact of attending the Committees allow us to be informed as soon as they arrive of the evolution projects, concerning our own activity. That means that we are able to assess very early the consequences of the evolution on our operational daily work, and therefore to have a more strategic position on all these issues.

CONCLUSION

The contribution of COGEMA-Transnucléaire to the evolution of nuclear sea transportation consists mainly in providing information background as well as technical support to our Authorities. Of course, this help is useful for all the delegations attending the IMO meetings, because they miss sometimes factual data and it happened that they are misled by some anti-nuclear organizations.

Moreover, it allows the industries to have a monitoring approach regarding this evolution and to better grasp their consequences. It is also a mean to reach a comprehensive view on the multimodal regulations of the IAEA as well as the modal regulations.

The regulations concerning nuclear maritime transportation is evolving. In 1993, the INF Code has been implemented by the International Maritime Organization: it recommends specific requirements concerning construction and equipment of ships (damage stability and fire protection for instance), whereas the nuclear materials transported by sea remain of course subject to IAEA regulations. Moreover, some amendments to the INF are actually analyzed by the IMO.
Added to these specific design requirements, some political and sensitive issues have been raised such as liability questions or a need of stringent control of the transboundary movement of wastes. These new aspects, linked to the perceived risks of the nuclear activity, might lead to new regulations in the field of the transportation.

Taking into account this new frame, the nuclear industrialists have chosen to be aware of any change : the best way to achieve this goal is to be present in the international forums, in order to follow and manage the new trends of the regulations. When new regulations or guidelines are discussed, it appears clearly that the advice of the nuclear industrialists, who apply every day the regulations and surround the consequences of their evolution, is welcomed. For example, one of the advantages they offer is a technical acknowledge, which allow them to help the modal organizations to adapt and complete the IAEA recommendations.
One aspect of this special involvement lies in the partnership that industrialists and States representatives have created. Indeed, a close cooperation exists and the industrialists appear to be the expert advice of the Authorities, who need some basic information in order to lead debates and to understand what it's at stake in each negotiations.

Moreover, this technical place allows the industrialists to communicate their experience and to give information to non-nuclear States, for which this activity is far from being familiar. This special mission is very important, when one knows that some anti-nuclear groups, using their non-governmental status, are very pro-active in these organizations. One point of their strategy consists namely in attempts to mobilize non-nuclear States, and to make them contesting the international regulations, because these groups never find them constraining enough. Facing this situation, the industrialists have to deliver as often as possible safety messages : a meeting such as the Special Consultative Meeting has represented an opportunity for the nuclear industry to deliver precise factual information about nuclear transportation, in order to help to carry out IAEA, IMO, UNEP works concerning the regulations evolution.