



## **EXPERIENCE ON THE MANAGEMENT OF THE REGIONAL NETWORK IN THE MEDITERRANEAN BASIN FOR THE DENIALS OF SHIPMENTS OF RADIOACTIVE MATERIAL**

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### **ABSTRACT**

The Regional Network in the Mediterranean Basin (Rome Group) was established in the framework of the Regional Networks created by the IAEA in response to a resolution by the 51<sup>st</sup> regular session of the IAEA General Conference as one of the actions to try to solve the problem of denials of shipments of transport of radioactive material. It was created during the workshop held in Rome (14 – 16 May 2008). The main objective of the Rome workshop was to develop a Regional Action plan on the basis of the general action plan established by the International Steering Committee taking into account the different characteristics and needs of the countries of the network to remove the causes of real or potential denials of shipments. The responsibility to coordinate the actions of the Regional Plan was assigned to the Regional Coordinators (France, Italy and Spain).

One of the first action of the Regional Coordinators was to try to quantify the phenomena of denials in the Mediterranean Basin – particularly for sea transport – both by the data recorded into the IMO data base contained into the Global Integrate Shipping Information System (GISIS) and on the basis of a questionnaire that was distributed to the countries of the network. The experience of these two year of life of the Mediterranean network put in evidence the difficulties to act only at general level by lobbying, training, etc., to solve the phenomena of denials and encouraged to act also on case by case when the denial of shipment is reported by the operators. The paper will illustrate the actions and the results of two years of functioning of the Mediterranean Network.

### **INTRODUCTION**

The Regional Network of the countries of the Mediterranean Basin was set up by the IAEA essentially to deal with cases of denials of shipments occurring in transport of radioactive material by sea. Cases of refuse to use some ports of countries of the Mediterranean Basin were reported in the past regarding in particular the transport of large sources of <sup>60</sup>Co. One of the goals of the Regional Network is to establish a more strict cooperation between countries in case of denials of shipment, but also to disseminate and exchange information on domestic procedures and regulations adopted by ports or airports authorities that can cause sometimes delay or denial of shipments of radioactive material.

## 1. HISTORICAL BACKGROUND OF THE MEDITERRANEAN REGIONAL NETWORK

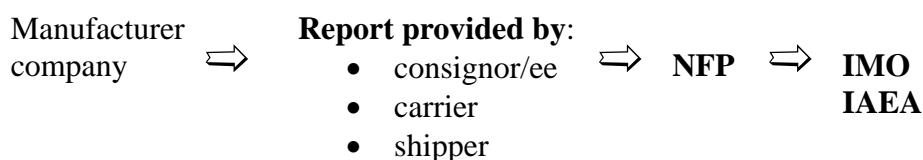
The Regional Network for countries of the Mediterranean Basin (Rome Group) on denials of shipment was established during the IAEA Regional Workshop held in Rome (14<sup>th</sup> – 16<sup>th</sup> of May, 2008). The regional workshops were one of the actions put in place by the IAEA Secretariat in response to resolution GC(51)/RES/11 of September 2007 of the IAEA General Conference, that asked to the Secretariat to actively facilitate the work of the International Steering Committee on denials of shipment of radioactive material (ISC) and identifies key tasks.

Twenty two countries were invited by the IAEA to attend the Rome workshop: Albania\*, Algeria, Bosnia and Herzegovina, Croatia\*, Cyprus\*, Egypt\*, Former Yugoslav Republic of Macedonia, France\*, Greece\*, Israel, Italy\*, Lebanon, Libyan Arab Jamahiriya, Malta\*, Morocco, Montenegro, Portugal, Slovenia\*, Spain, Syria Arab Republic, Tunisia and Turkey. Fifteen countries (underlined) attended the Regional Workshop with other representatives of international and intergovernmental Organization. Only 11 countries (\*) have appointed the National Focal Point (NFP) up to August 2010. At the Rome Workshop was also decided to accept the representatives of France, Italy and Spain as Regional Coordinators (RC) of the network, principally to organize the Regional Network and to develop, evaluate and review the implementation of the Regional Action Plan as agreed in Rome.

### 1.1. First meeting of Regional Coordinators - Madrid ( 6<sup>th</sup> – 7<sup>th</sup> November 2008)

The meeting was dedicated to review the Rome Action Plan and to establish the strategy for its implementation in agreement with the International Steering Committee (ISC) Action Plan. Some other main topics were also discussed during the meeting with the scope of submit them to the discussion and approval by the ISC:

- The procedure (Figure 1) to report denials cases to the IMO data base was analyzed.



**Figure 1.** Basic scheme of the denial reporting procedure

This would be the usual action route followed by the NFP nominated by the Member States; however it was considered that there was not a clear system settled on how to file the form for denials and provided it to the NFP, or if there is not NFP nominated to whom, and which are the organizations who should know this information. After analyzing the situation it was concluded as very necessary that a unique and clear procedure to report cases of denials should be established for all countries instead of one in each Regional Network. The general understanding was to harmonize all the procedures existing in the different Regional Networks to report the information to the data base, using the same formats and same channels (NFP).

- The language to be used for the denial reporting form. The agreement was that the most efficient procedure should be the NFPs report to the data base in a unique language, English. Independently of that, each Member State may translate the format for report of denials into its national language to obtain the information from the national operators.



- The concerns regarding the functions and responsibilities of the NFP related to the promotion of industries requiring transport of radioactive material (lobbying activity), according with the IAEA intentions. It was noted that because the NFP should carry out actions in this sense, the NFP couldn't work for the Regulatory Body as this would imply a conflict with the required independence of that Body. In this framework the CSN (Spanish Regulatory Body) wrote a letter to the IAEA for clarification on the role of the NFP.

### **1.2. Second meeting of Regional Coordinators - Paris ( 19<sup>th</sup> – 20<sup>th</sup> May 2009)**

The meeting was dedicated to update the Regional Action Plan and to verify its implementation. The most important topics discussed were:

- The answer to the questionnaire developed by the RC and distributed to the countries of the Mediterranean Network in order to identify and quantify the denial problem in the region.
- The answer given by the IAEA to the letter of the CSN on potential conflict between the role of NFP for lobbying activities and his function as regulator in the case he/she is from the Regulatory Body. To avoid this potential conflict the IAEA recommended an additional task be assigned to the NFP's that is: "to facilitate the establishment of a national committee for coordinating work related to formulating and executing national action plans in line with the regional action plans". The IAEA indicated that it is expected that the group will include individuals who are able to address the promotion of the use of radioactivity in different fields without constraining or violating the principle of regulatory independence.
- Analysis of the data recorded in the IMO data base regarding the Mediterranean region to find the critical situations (ports, airports or refuse by shipping or airlines companies). Additional information on this point may be found in the section 3 of this paper.

## **2. THE REGIONAL ACTION PLAN**

A Regional Action Plan (RAP) was agreed in the Rome workshop. This RAP of the Mediterranean Network lists the actions to be addressed by the participating countries through their NFP and the International Organizations. The Action Plan was adopted by the "Rome Group", indicating the actions, the member who would take the action and the date by which the action would be accomplished. In line with the ISC Action Plan the RAP is based on six areas of work: Awareness, Training, Communication, Lobbying, Economics and Harmonization. For each of those areas the RAP details the actions to be carried out in line with the general action plan established by the ISC. Many actions indicated in the RAP were initiated and coordinated by the Regional Coordinators.

From the first RAP designed by the "Rome Group" this Plan has evolved in line with the actions and recommendations adopted by the ISC and taking into account the feedback with other Regional Networks. The RCG has carried out several actions to implement the actions of the RAP and to inform about the representatives of the countries included in the Mediterranean Networks; however, there had been a very low feedback from those representatives in the region, NFPs included.

## **3. DENIALS IN THE MEDITERRANEAN REGION**

The first step to find the solution for a problem is to know it in depth, indeed to quantify it perfectly. The magnitude of the solution will be directly connected with the magnitude of the problem. Consequently, to define specific solutions for denials in the Mediterranean basin it is



necessary to be aware of what is exactly happened, that is, to precise what (type of denials), how many (magnitude of the problem), where and who (origin of the problem).

The IMO data base was the international tool created initially to find out that information. The IMO developed this particular data base inside another more general on Marine Casualties and Incidents. The data base on denials is jointly administered by the IMO, the International Civil Aviation Organization (ICAO) and the IAEA. However, several years later the data base started to work, a minimum number of cases has been loaded compared to the number of shipments of radioactive material carry out around the world. In fact, at the end of 2009 the number of denials or delays reported was around 200 and only about 15 may have some potential relation with the Mediterranean region. The RCG has established that potential relation when the origin, destine or transit of the shipment is in the region. However, in many of those cases it is very difficult to confirm if the origin of the problem comes from a country in the region, since additionally to that apparent lack of reporting, many reports had not been complied adequately, being impossible to determine where the problem happened, what the causes of the denial or delay were or what company or authority was the origin of the problem. These lack of compliance difficult the analysis of the problems and to look for the better solutions.

Therefore, the unique currently available mechanism to quantify the problem (the IMO data base) does not show a magnitude as important as that initially indicated by some forum of the industry and the regulatory authorities, if compared to more than 15 million of packages transported annually around the world, according to IAEA figures, or considering about 75 million of nuclear medical treatments taking place annually, according to industry statistics [1].

A more in depth analysis of the 15 cases reported to the IMO data base that are potentially related with the Mediterranean region shows that:

- Almost all cases are maritime transports of  $^{60}\text{Co}$  sources in type B packages (UN 2916) which has been reported by the same supplier of this kind of material.
- Approximately a half of the cases are denials coming from carriers that point out potential administrative burden to transport through the Suez Canal. In fact, the Suez Canal establishes graded requirements of authorisation, notification and inspection for the transport of dangerous goods. Nevertheless, these requirements are defined by the Suez Canal Authorities and the Egyptian Atomic Energy Authorities [2] considering safety reasons to circulate through the Canal and shall be fulfilled.
- The rest of the cases are a general statement made by the carriers for not accepting to transport radioactive material. The RCG tried to look for additional information on these cases to evaluate possible solutions; however, it is very difficult to identify the precise contacts in the shipping companies, usually international companies where it is very complicated to recognize even its country of origin. Furthermore, some inconsistencies have been found, since some of those companies are really transporting other kind of radioactive material in other regions.

In short, the available information at the IMO data base on denial occurrences in the Mediterranean region is very limited and it is not possible to confirm the magnitude of the problem and to find particular and relay effective solutions. Consequently, the RCG decided to elaborate a questionnaire



for the NFP in the region to obtain specific information to evaluate correctly the problem in the region (See section 4 and Appendix 1).

During the 5<sup>th</sup> meeting of the ISC in January 2010 the apparently lack of information in the IMO data base was analysed. According to the arguments expressed by some representatives of the industry, the denial problem is very much large that those 200 cases reported and the main reason of that lack of reporting is the fear of consigners respect to the confidentiality of the information. The industry is afraid of an inadequate treatment of that information led to an aggravation of the denials when carriers, authorities or others involved stakeholders would take 'reprisals' if they are identified in the report as the origin of the problem.

The ISC was aware of the need of improvements in the data base and the reporting procedure and a new system is being developed [3]. However, an urgent and effective action is needed since *No report equals means no denials* and none actions are possible if the real problem is not well-known.

#### **4. QUESTIONNAIRE ON DENIAL IN THE MEDITERRANEAM BASIN**

In order to have a broader view of the denials and delays occurring in the Mediterranean region a questionnaire was developed and distributed to the countries of the network (see Appendix 1). Only 5 (Croatia, Italy, Slovenia, Spain and Turkey) of 22 countries of the Mediterranean Network answered to the questionnaire. Although the response was quite low the following elements emerged from the answers:

- The lack of information by the side of the transport operators on the Reporting Form for the communication of cases of denials or delays;
- very few cases of denials or delays known. In some cases denials or delays were identified as "difficulties" arising from stringent national regulations or from problems in the area of customs, harbours and air transport;
- the need to improve information to the general public on the use of radioactive material, especially for medical treatments;
- the need of training for the persons involved in controls of a transport of radioactive material as police, customs, ports authorities, airlines, etc.,
- the need for some countries to have access to the IMO data base.

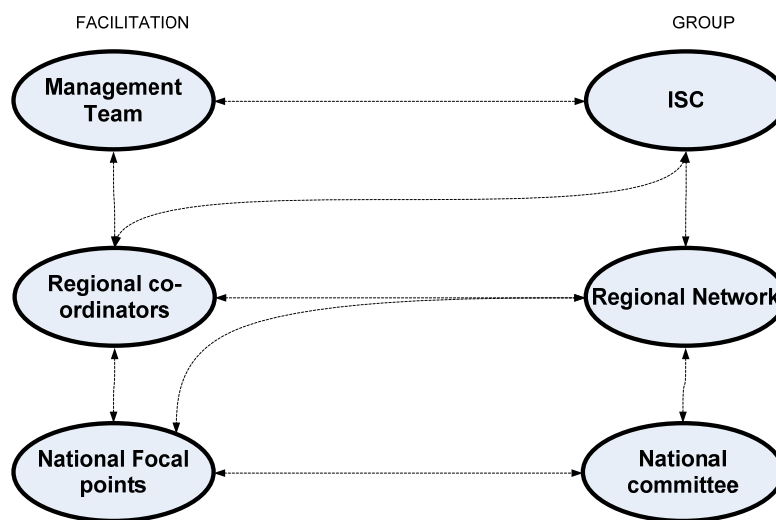
#### **5. DENIALS, IS NEEDED A DIFFERENT APPROACH?**

In response to the General Conference resolution adopted in 2005 on denials, the IAEA created the ISC including representatives from the IAEA Member States, the International Governmental and Non-governmental organizations and the industry. At the end of 2006 the first meeting of the ISC took place. The ISC developed an Action Plan to reduce significantly the cases of denials.

In order to facilitate the communication between the ISC and Member States, that Committee identified the need for the NFPs to be nominated by each Member State. This was to occur no later than 30 December 2007, but at August 2010 only 69 of 151 IAEA Member States have identified and duly nominated individuals to act as NFPs. Another fundamental point of the initial strategy

was the creation of Regional Networks (currently 6, the Mediterranean region included). Consequently, throughout 2007, 2008 and 2009 six regional workshops dealt with the issue of denials were conducted, involving approximately 300 participants. Additionally, in 2009 and 2010 technical meetings were held at the IAEA headquarters for the NFPs and the RCs and the intention is to continue with these kinds of meetings.

Finally, the strategy has evolved to the recommendation of the ISC (2010 meeting) for establishing National Committees by the Member States. Then, according to the last decisions of the ISC, the present global structure used for fighting against the denials may be summarized in the Figure 2, taken from the *Handbook for addressing instances of denials/delays of shipment of radioactive material* [3].



**Figure 2. Global structure designed to deal with the denial problem**

In short, the mechanism created to avoid and solve the denials in the transport of radioactive material is growing gradually and it is achieving an enormous magnitude that involves an enormous effort and resources (personnel and economics) consumption for the International Organisations, the national regulatory authorities and the industry. Furthermore, this situation unfortunately is coinciding with a worldwide economic crisis, which advises to save those resources as much as possible. In addition, the effectiveness of the mechanism is not clearly proved taking into account that since it started to work, about five years, the magnitude and sources of the problems are not known accurately, since the reporting procedure have clearly failed.

In consequence, it is considered necessary to evolve to a simpler approach, more specific and efficient, which saves the available resources. This approach might be focused on:

- Identify urgently the real magnitude of the problem (what, how many, where and who is the origin of the denials and delays).
- Determine the priorities to fight against the specific problems previously identified, taking into account the social and economic impact (focus the efforts on ‘kill elephants nor ants’)



- Adopt specific measures to solve particular problems (to abandon strategies of global and general measures to prevent potential problems).
- Adapt tools to be used by the Member States to their real problems (nothing is needed if nothing is happened).

## CONCLUSIONS

- The Mediterranean Network has developed a Regional Action Plan (RAP), which has evolved in line with the actions and recommendations adopted by the ISC and taking into account the feedback from other Regional Networks.
- The Regional Coordinators (RC) of the network have updated the RAP and supported its implementation; however, there had been a very low feedback from the representatives of the countries in the region, NFPs included.
- Only 11 countries of the 22 in the Mediterranean Network have appointed the NFP up to August 2010. There is a similar worldwide situation, since only 69 countries of 151 IAEA Member States have identified and duly nominated individuals to act as NFPs.
- Most of NFPs belong to the Competent Authorities. Consequently, there is concern regarding the functions of the NFP which would be related to the promotion of industries requiring transport of radioactive material (lobbying activity included in the Actions Plans).
- The available information at the IMO data base on denial occurrences is very limited, so it is not possible to confirm the magnitude of the problem and to find particular and relay effective solutions. An urgent and effective action is needed since it is clear that *No report means no denials*. None actions are possible if the real problem is not well-known. An unique and clear procedure to report cases of denials should be established urgently.
- There has been a very poor answer from the countries in the region to the questionnaire sent by the RCG to obtain direct information on the magnitude of the denial problem.
- The mechanism created to avoid and solve the denials is growing gradually and it is achieving an enormous magnitude that involves an enormous effort and resources consumption for the International Organisations, the national regulatory authorities and the industry.
- It is necessary to evolve to a simpler approach, more specific and efficient, that identify urgently the real magnitude of the problem, determine the priorities, adopt specific measures to solve particular problems and adapt the tools to be used by the Member States to their real problems.

## REFERENCES

- [1] The denial of shipments of radioactive material: a world social problem. - Mario Mallaupoma. Instituto Peruano de Energía Nuclear.
- [2] Transport of radioactive materials in Egypt, Activities and issues.- Rifaat M.K.; El Shinawy. Presentation at the 5<sup>th</sup> International Steering Committee meeting - IAEA - Vienna (February 2010)
- [3] Handbook for addressing instances of denials/delays of shipment of radioactive material (Draft) - IAEA – Vienna (August 2010)

**Questionnaire**

	Y	N	NOTE
Are you fully aware of the situation on Denials and Delays (D&D) occurring in your country?			
Do you know how to collect that sort of information?			
Have you implement (or it is in progress) any system to collect this information from transport operators? (in case you have data on D&D in your country try to fill the Table below)			
Do you know if the Reporting Form by which a Report on D&D should be submitted to the IMO/IAEA/ICAO is known and available to the transport operators?			
Have you implement (or it is in progress) any system to inform the transport operators on the Reporting Form and the way to communicate the D&D?			
Do you have an access to the D&D international data base (IMO/IAEA)?			
Have you used this data base?			
Have you had any contacts with your National Focal Point (if your country has a NFP)?			
Have you been informed of any case of D&D occurring in your country? (If yes, Please indicate who has provided you the information?)			
Do you get any complain from local stakeholders about D&D occurring in your country?			
Occurring in another country in the Mediterranean Basin?			
Have you identified a place (port, airport) in your country which denials or delays RAM?			
Have you identified a Shipping Line or and Airline from your country denying or delaying RAM transports?			
Have you been involved in any solution to a D&D problem in your country?			
Do you have any contact with a modal organization (IMO, ICAO..) represented in your country?			
Do you have any suggestions to improve in your country and in the Mediterranean Basin a best knowledge of the D&D situation?			

Please, in case you have data on D&D in your country try to fill the next Table. The intention of this Table is not to collect detailed information on particular cases of D&D but to have a general perception of the magnitude order of this problem in your country. The only way to obtain precise data is through the international data base (IMO/IAEA) now just working.

Mode of transport	Main Activity affected <sup>1</sup>	Problems <sup>2</sup>	Potential Causes <sup>3</sup>	Frequency <sup>4</sup>
<b>Air</b>				
<b>Maritime</b>				
<b>Road</b>				
<b>Rail</b>				

<sup>1</sup> i.e. : nuclear medicine, radiotherapy, irradiators, industrial applications, Nuclear Cycle, etc...

<sup>2</sup> i.e. : air/maritime companies denial, ports Denial, administrative delays, air pilot denials, logistics difficulties, etc...

<sup>3</sup> i.e. : negative perception of radioactive material, lack of training/information, few air/maritime companies available, excessive regulatory burden, etc...

<sup>4</sup> How many times this problem may happen at year