GLOBAL ACCEPTANCE ON MANAGEMENT AND TRANSPORT OF SPENT FUELS

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Abstract

Orano TN the logistics division of Orano has developed a Global Acceptance model. The presentation will elaborate on the methodology and give some example of how the GA model has been used for new build equipment and international transports

Communication tools and speed have drastically changed compared to 20 years ago. Many stakeholders from national to local levels can raise questions and reluctances that will slow down or potentially shutdown the new projects. Consequently, when implementing a new nuclear site (new build, disposal and/or interim storage site for waste and spent fuel…) and/or transporting nuclear materials, a strong global acceptance program must be developed with all the stakeholders including public in order to succeed. A high standard of professionalism must be demonstrated to all the stakeholders understanding that it is not all about the safety of the technical solutions but the way we engage and communicate. Additionally, such program must be implemented from the initiation of the project and shall continue through the operations of the project.

Orano TN has been successful for more than 50 years in shipping various types of nuclear materials including very sensitive materials. Such success would not have been possible without a proven global acceptance model. Using a consistent and well-established methodology, such model can apply to a new site project as well to a transport project. Lessons learned over the years have allowed us to perfect our methodology.

The paper will describe the main steps of our global acceptance methodology and provide two industrial examples to demonstrate the benefit of the program. The first example is linked to transport activities and more precisely maritime transportation of MOX Fuels and Vitrified residues from Europe to Japan. The second example is linked to the development of a centralized interim facility in the USA.

Addressing various items for a long term Global Acceptance program, the presentation will elaborate on these examples to demonstrate the necessity of deploying an efficient GA program to secure any investment in the nuclear field and associated transports.

1. INTRODUCTION

As transports of radioactive materials are performed in the public domain, they can face questions and oppositions from local stakeholders, especially in an environment which is not familiar with nuclear materials. Moreover, some opposition groups could spread misinformation about the conditions of the transports and potential consequences. To keep the routes open, it is vital to have in place a Global Acceptance system which can convince the international stakeholders that transports are realized with the minimum of risks and in accordance with the international national and local regulations. First, we will explain our Global Acceptance model developed after many years of experience. Then two examples about MOX fuels and wastes transports to Japan, and development of a centralized interim spent fuel facility in the USA will illustrate our methodology.

2. THE GLOBAL ACCEPTANCE MODEL

A full methodology is required to establish a Global Acceptance plan which will allow the transport to be performed without problems. Orano TN's Global Acceptance model is outlined in four steps.

2.1. Identification of the stakeholders

In this phase all the possible stakeholders who could be involved in a transport are identified. This could be national authorities, ministries, port authorities, economic institutions, customs etc. This step is very

important and needs to be done carefully because the experience shows that it's generally the forgotten stakeholder have forgotten that will cause problems at the time of the transport.

2.2. Selection of the most relevant stakeholders

As not everybody can be addressed, especially for international transport, the most relevant stakeholders need to be selected, i.e. those able to support transport, but also those who could be an obstacle to the project.

2.3. Communication to the stakeholders

Once selected, a meeting should be held with the stakeholders to explain the transport, the flow of materials, the safety and security measures used, the possible emergency plan and the communication plan. This step is dedicated to get an approval for the transport.

2.4. Networking

As generally nuclear material transports are performed over many years, the network need to be kept alive because a number of stakeholders will move (elections, retirements etc.) It's essential to have at any moment the real list of stakeholders involved in a transport.

3. INDUSTRIAL EXAMPLES OF USING THE GLOBAL ACCEPTANCE MODEL

This model has been used many times to "keep routes open". Two specific transports where this methodology has been successfully used will be briefly explained

3.5. MOX and wastes transports from Europe to Japan

Since 1994 we have shipped back from Europe (UK and France) to Japan the products & waste from spent fuel recycling sent to Europe in the 1980's. Using three maritime routes around the world, the Global Acceptance model has been used for these transports without any problem. Having organized a worldwide network of stakeholders, any situation which could occur on these long distances could be managed.

3.6. Centralized spent fuels interim facility in the USA

When Orano TN's partner WCS started to develop an interim facility for spent fuels in Texas, Orano tn has provided support in term of methodology based on the global acceptance model. Experiences gained during these operations

As far as transport is concerned in the first example, Orano TN have demonstrated during 25 years without any problem, that a Global Acceptance program would work only in the long term. A complete database of contacts all around the world has been set up to solve any problem arising anywhere to avoid any delay and denials in the logistic scheme.

Orano TN have also developed a network of Public Relations consultants embedded in the most relevant countries enabling awareness of any changes in the perception of transports. Orano TN would like to thank the IAEA with its large network in the workshops and especially during the General Conference each year, which is the best opportunity to meeting contacts.

In the example of an interim facility (like in Texas) as well, key and permanent contacts with the local and regional stakeholders allow maintenance of the trust in the business and the ability to be the right partner whatever the industrial life circumstances.

The experiences gained during these two main examples have been used for many others flow of transports of radioactive materials around the world and for facilitating the acceptance of industrial facilities as long term waste storages.

4. CONCLUSIONS

Every transport in the world could be subject to interferences from international, national or local stakeholders driven by misinformation or ideology. The Global Acceptance Model by learning from past experiences, enables Orano TN to consider the future of safe and reliable radioactive materials transportation.